

# **BREAKING THE BANKS:**

## **Central Banking Problems and Free Banking Solutions**

**By**  
**Richard M. Salsman**



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## Editor's Preface

With recent losses in the thrift industry estimated at some half-trillion dollars and still counting, by now it ought to be clear that central banking regulation has failed miserably to promote safety in the depository institutions of this country. Even though banking remains the most-regulated sector of the economy, record numbers of banks and thrifts continue to fail and the S&L bailout now ranks as the biggest financial scandal in human history. That debacle alone may cost even the average taxpayer thousands of dollars over the next 30 years.

Many analysts nevertheless attribute the recent deterioration in the banking and thrift industries to deregulation. They, as well as the general public, apparently favor extending the regulatory mechanism to embrace virtually all facets of banking practice — *i.e.*, to “reregulate” in a grand way.

Their reluctance to embrace a free-market alternative to the banking mess evidently derives largely from their views about free banking, which conventional history has portrayed as reckless and fraught with dangers both for individual depositors and for the financial prospects of the country as a whole.

For many years, AIER has taken the opposite view that Government intervention in the banking industry has confounded sound banking practices. In this respect, the recent crises seem largely to reflect the cumulative distortions that artificial barriers to market discipline have permitted.

Richard M. Salsman's, *Breaking the Banks: Central Banking Problems and Free Banking Solutions*, is thus a particularly timely contribution to our on-going analysis of current policy issues. As he shows through extensive reference to the empirical record, by almost any measure of banking safety, America's free banking era — even including the experience of the notorious “wildcat banks” — was astonishingly sound compared to the results achieved under the Federal Reserve's central banking regime. Indeed, the aggregate performance of U.S. banks during the least-regulated period in our history would be the envy of virtually any bank or thrift institution operating today.

These results are entirely consistent with the theories of central banking and free banking that Mr. Salsman develops in the pages that follow. For example, it ought to come as no surprise that a government that guarantees the liabilities of an entire industry invites incompetence and fraud. It may, on the other hand, be a revelation to some that — from the earliest days of the Republic — the chief beneficiary of banking regulation has been not the public, but government itself. Throughout the history of U.S.

banking, the regulatory mechanism in effect has extended government's line of credit, today to the point where there is virtually no limit to what it can and does "borrow" against its own money creations.

In short, through the careful development of assertions supported by observation, Mr. Salsman demonstrates that there are compelling civic as well as personal reasons to restore free banking in the United States. As a practicing New York banker, he is in a position know — and we are pleased to welcome his study to AIER's catalog of current-affairs publications.

Robert A. Gilmour  
Director of Research and Education

Great Barrington

June 1990

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## INTRODUCTION

**T**HE financial condition of the U.S. commercial banking system has deteriorated significantly throughout most of this century and the deterioration has accelerated in the past decade. The theme of this work is that central banking tends to undermine the financial condition of the banking system, while free banking enhances and sustains it. By central banking we mean all forms of government intervention in the banking system, whether a legal tender monopoly on the issue of bank notes, mandatory deposit insurance, or geographic and functional regulation. By free banking we mean complete, unregulated, laissez-faire banking, a system in which government's only legitimate function is the enforcement of voluntarily designed contracts. The conventional view is that central banking stabilizes the private banking system and that if we had free banking today it would be chaotic or dominated by the equivalent of 19th century "wildcat banks." We argue in both cases that precisely the opposite is true. Central banking not only fails to ensure banking stability but ends up breaking the banks on the widest scale possible. Free banking is an appropriate alternative to the instability of central banking.

Since the publication of *The Denationalization of Money* by Nobel Prize economist Friedrich Hayek in 1976, numerous books and journal articles have been published on the theory and history of free banking and it is no exaggeration to say that today it is the fastest growing area of research within monetary economics. The work that follows draws heavily on this significant and growing literature and also on the arguments for and against central banking, in order to assess how each system affects the financial condition of the banking system. We date the beginning of central banking in the United States to the formation of the Federal Reserve System in 1913. We outline the main characteristics of central banking and develop a theory of how central banking influences the financial condition of the banking system. We examine the actual trend in financial deterioration by analyzing standard measures of banking system health over the past 75 years of central banking, particularly measures of capital adequacy, asset quality, liquidity, and profitability. On a more qualitative level we also highlight the type of bank management practices that tend to evolve under central banking. We will see that central banking has had a deleterious effect on the financial condition of the banking system because its primary purpose is not to stabilize the banking system but to finance government. We also explore the system of free banking along similar lines of inquiry. Although the United States never has enjoyed complete laissez-faire money and banking in any part of its history, it came the closest in the 75 years prior to 1913, beginning with the pre-

Civil War “free banking” laws. We describe the important features of a free banking system, present a theory of its effect on the financial condition of banks, and measure the banking system’s strength over the relevant decades. The purpose of free banking is to finance production and trade at a profit. We find that in theory as well as in practice free banking tends to enhance the financial condition of the banking system.

Today most monetary economists take central banking as an unquestioned axiom. Unlike their 19th century counterparts, they do not consider the alternative of free banking vs. central banking. They are locked in a much narrower debate about “discretion vs. rules,” about *how* a central bank should manipulate money and credit, not whether we are benefited by state-directed money and credit at all. Few other branches of economics simply presume that the market does not work. Even Milton Friedman and the monetarists, considered by many to be advocates of free markets, actively oppose free banking and defend the legitimacy (though often not the practice) of central banking. As a result, monetary economics today accepts central banking and is concerned primarily with its effect on macroeconomic phenomena such as the price level, the supply and demand of money and credit, interest rates, employment, and national income. Aside from standard textbook demonstrations of the deposit-multiplier process and the effect of regulatory constraints on certain bank activities, the economic literature is devoid of any substantive analysis of the effect of central banking on the financial condition of the banking system. In other words, the connection between macroeconomic monetary theory and microeconomic banking theory and practice is nowhere adequately developed. This work is an effort to explore more fully this connection. Without the link, the two theories stand in unwarranted isolation and unquestioned contradiction. Havoc in the banking system is dismissed as an isolated, temporary condition and never traced to its source in the government money monopoly. It is merely assumed today that if central banking has any effect on banks at all, it is a positive, stabilizing one. The standard claim is that laissez-faire banking is inherently inflationary and unstable. This work argues alternatively that central banking inherently makes unstable an otherwise naturally stable industry.

Underlying our main theme is the observation that safe and sound banking depends on sound money, while imprudent banking has its source in unsound money. This principle will be developed throughout the work. For now it is enough to observe one of the curious features of our central banking system today. While base money is monopolized and centrally managed by politicians, the business of banking is (in theory at least) left to the bankers. This is an inherently unstable arrangement. The economic goods we call money and banking are inextricably linked, whether we

have a system of free banking or central banking. Today, about 85 percent of the money supply is comprised of deposits at banks, while the balance consists of Federal Reserve notes in the hands of the public. Therefore, when the government institutes some "monetary policy," when it manipulates money and credit, it unavoidably manipulates the banking system, where most of the money supply and credit reside. If we must have government intervention in money, we cannot prevent government intervention in banking or political credit allocation. This connection is glimpsed somewhat by economists, regulators, and bankers who concede that the primary justification for government intervention in the management and credit policies of banks is the preservation of the money supply and of the monetary policy role of government. But while some recognize the dangers of socialized credit, few question the propriety of socialized money on which it is based. In the end we are left with absurd outcomes such as government prohibitions against banking innovations that alter traditional definitions of money and bureaucratic prescriptions of bank management and lending policies.

The organization of this study is as follows. Chapter I discusses the importance of sound banking and its role in an advanced economy. In Chapter II we outline some of the critical measures of the financial condition of the banking system that are used in the historical sections of the study. The theory of how central banking influences the financial condition of the banking system is the subject of Chapter III. We then test our theory in Chapter IV by turning to the historical record of central banking and its effect on the banking system. In contrast, Chapter V develops the theory of how a system of free banking affects commercial bank stability and Chapter VI examines the more favorable historical evidence from the U.S. free banking era. Chapter VII treats alternative views on banking system instability, such as management incompetence and fraud. In Chapter VIII we summarize our findings and reconsider the genuine purposes of central banking and free banking. Finally, in Chapter IX we discuss money and banking reform in light of the theory and evidence we have presented and propose reforms that incorporate a number of free banking features.

The writer thanks Dr. George Reisman of Pepperdine University for alerting me to free banking on a gold coin standard, for his helpful insights in economics, and for his practical suggestions regarding the reforms necessary for improving our present money and banking system. I also thank Dr. Paul Wachtel of New York University Graduate School of Business for acting as advisor on my initial study while I was a student at the school. Dr. Eugene Nelson White of Rutgers also assisted me by accelerating my understanding of free banking in history and its lessons for

reform of our central banking system today. I am also grateful to Dr. Robert Gilmour of AIER for his keen insights on market principles in money and banking and for his skilled editing, so necessary to bring this work to final form. Any errors in the work are mine alone. Finally, I want to dedicate this work to my wife Lynn, for her irreplaceable support and encouragement.

Richard M. Salsman

## I.

### THE IMPORTANCE OF SOUND BANKING

**T**HE financial condition of individual commercial banks as well as that of the banking system is of crucial importance to many people. Depositors seek a safe storage of their funds and sustained purchasing power. Bank creditors depend on a full and timely repayment of their investment. Bank shareholders seek a competitive rate of return and the preservation and appreciation of their capital. Customers need sound banks as a reliable source for advice, for credit, for entrusting their savings, and for efficient payment mechanisms. Bank managers attempt to direct the banking institution on a profitable yet prudent course. All rely in significant ways on a sound, stable system of money and banking.

Individuals and enterprises cannot prosper in a sophisticated, advancing economy without sound, efficient systems of money and credit. As economies advance beyond barter and as economic values become denominated in money, the money and banking system becomes an increasingly important sector of the economy. Its importance derives from the economic universality of money and credit, which facilitate production, exchange, and the flow of resources through all households and enterprises in the economy. Money facilitates economic exchange in the present, and credit facilitates economic exchange between the present and the future. The division and specialization of labor, from which we derive so much of our prosperity, are wholly reliant on sound money and credit. The money and banking system serves as the ultimate integrator of the millions of daily choices people and enterprises make in every other sector of the economy. Sound money and credit are the prerequisites for such choices — to save, invest, produce, and consume economic values denominated in money. When the money and banking system is unsound and unstable, these choices and this sophisticated economic organization are disrupted and misdirected, making continued economic advance difficult, if not impossible. No active participant in an advanced economic system based on indirect exchange can escape the effects, whether good or ill, owing to the financial condition of the money and banking system. This is why banking stands alone as the one industry whose financial condition affects all other industries, enterprises, and individuals in the economy.

In the past few decades we have witnessed growing volatility and deterioration in the stable and efficient functioning of U.S. financial markets. At various times our economy has been subject to inflation and deflation, to “easy” credit and credit crunches, to speculation and liquidation, to soaring and falling interest rates, to booms and crashes in real estate, agri-

cultural, and stock markets. Since the early 1970's international trade flows have been disrupted by dramatic fluctuations in exchange rates. Government spending and deficits are high and rising, savings rates are low and falling, and there seems insufficient investment to keep industry competitive and prosperous.

How are banks to manage in such an environment? Instability and inefficiency in the financial markets make long-term planning and coordination difficult for any industry and enterprise but they pose special, more difficult, problems for financial institutions whose balance sheets and income flows are comprised almost exclusively of intangible financial instruments denominated in nominal terms and buffeted by fluctuating interest rates. When we observe merely the past 2 decades of banking history we see a growing number and magnitude of bank failures, expanding loan losses and write-offs, swelling in the regulators' lists of "problem banks," rapidly shrinking deposit insurance reserves, and even for the survivors, a record deterioration in measures of commercial bank financial strength. This affects more than just the bankers. Those who thought the value of their currency was protected by the Federal Reserve have seen the purchasing power of the dollar severely eroded. Depositors who thought the value of their bank money was insured by government deposit insurance not only have seen those dollar-denominated deposits eroded by central bank inflating but now are suffering further as deposit insurance funds are shored up by higher taxes.<sup>1</sup> Business executives cannot plan long range amidst such financial market volatility. This volatility and the fact that banks themselves are active determinants of the creation and flow of money and credit make it difficult to isolate the "causes" of the deteriorating condition of the banking system. Is banking deterioration a reflection of failures and malinvestment in sectors of general industry, or did lax bank lending policies contribute to such failures? Do banks make more mistakes because of inflationary booms, or are banks responsible for the credit inflation to begin with? If the latter, why would they inflate to their own harm? Are banking troubles a result of "supply shocks" or of international trade imbalances? To what extent is banker incompetence or fraud to blame?

Today these questions are treated in such isolation that answers are either illusive or contradictory. Where consistency and theoretical rigor

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<sup>1</sup> Although this study focuses on commercial banking, not on the savings and loan industry, it should be observed that the U.S. Government is in the process of burdening the taxpayers (and surviving banks) with a \$500 billion (or more) bailout of more than 1,000 reckless and insolvent savings institutions and the industry's bankrupt insurance fund, the FSLIC. The two industries differ in some important respects, but the sources of instability operating in both are quite similar.

are required we often are given only anecdotal evidence by those who fail to see the forest (an unstable banking system) for the trees (particular bank failures). We must distinguish between the condition of the individual bank and the banking system but we also must recognize that each bank operates within the incentives provided by the system. In short, while there is value in understanding why a bank such as Continental Illinois failed, it is more valuable to understand why more than 700 banks failed in the 1980's, why bank capital ratios have declined precipitously over recent decades, and whether our answers point us to other such banks in our midst. Particular banks may get in trouble for reasons that are readily apparent to all (often in hindsight) upon close inspection. But we need to understand why general and widespread weakness in the banking system has developed in recent decades. We see in banking not just failure but *clusters* of failure, not just isolated mistakes but *systematic* mistakes. There are clear patterns developing but we need unbiased observation, not anecdotes, to identify them. Considering the universal impact of money and credit on the efficient functioning of the economy and the increasing instability apparent in financial markets and the banking system in recent decades, a thorough-going analysis of the institutional structures, factors, and incentives that influence the economics of banking is urgently needed. Economists need to identify those practices that undermine and those that enhance the financial condition of the banking system, not only of particular banks within the industry. The diametrically opposed systems of central banking and free banking provide a useful theoretical framework for examining such practices because they permit us to isolate the effects of very different incentives on the banking system.

The methodology of our study deserves comment. Whereas economists have shown the effects of central banking on macroeconomic phenomena such as prices, interest rates, employment, or income, we do so here *only* to the extent these factors relate to banking practices and the financial condition of banks. For example, price inflation may induce bankers to lend on the basis of artificially high values. Also, the statistical examinations in Chapters IV and VI are circumscribed by the use of only a few relevant measures of banking system stability, a necessary procedure since samples are taken over extended periods of time to capture both central banking and free banking periods. We try to recognize and control for the broad institutional changes that have occurred in banking history by describing the characteristics of free or central banking operative in each period under study. Finally, since the empiricism in this study spans 150 years, it is important to recognize the distinction between the principles and the practices of free banking. Of course the latter have evolved and advanced rapidly over the decades, with the development of

more sophisticated accounting, computer technology, telecommunications, and professional management. This study is concerned not with the daily practice but with the fundamental principles of sound banking. These principles are being eroded under central banking despite improvements in the technological proficiency of banking.

## II.

### STANDARD MEASURES OF COMMERCIAL BANK STABILITY

**I**N order to discover the main institutional influences on the financial condition of the banking system we must first identify appropriate measures of bank safety and soundness. Having established such measures we will be able to assess how the financial condition of the banking system is distinctively influenced by central banking and free banking.

#### A. Basic Indicators of the Financial Condition of Banks

Today there is little controversy about what constitutes a healthy financial position for the banking system. The debate, which we will cover in later chapters, involves discovering the main determinants of the system's strength or weakness. Safety and soundness in banking depend on the financial strength of the banking system and each of its members. Financial strength includes the ability of banks to attract low-cost deposits, to meet withdrawals effectively, to design loan and investment portfolios with risk and reward features sufficient to generate profits, to attract new capital, and to develop prudent managers. In recent decades a sophisticated body of research and analysis has been developed by bank examiners, securities analysts, and banking professors to assess the financial standing of banks and determine the factors leading to bank failure.<sup>1</sup> Banks are most effectively examined by using five basic indicators: capital adequacy, asset quality, liquidity, profitability, and management. We discuss each of these in greater detail below.

##### 1. Capital Adequacy

A bank's equity capital, the excess of its assets over its liabilities, represents the value of the shareholder's ownership in the bank and serves as a cushion to absorb operating losses and asset (primarily loan) defaults. All else being equal, the lower the bank's capital base relative to its assets, the greater is the risk of insolvency. But the appropriate proportion of capital to assets need not be identical for every bank. The greater is a bank's asset quality, profitability, and liquidity, the lower will be the ratio of capital to assets with which it can safely operate. On the other hand, banks with riskier assets and lower profitability cannot safely leverage their assets on the same equity base as can banks with more conservative profiles. Insufficient capital is not a determinant of bank failure but a re-

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<sup>1</sup> "Warning Lights for Bank Soundness: A Special Issue on Commercial Bank Surveillance," *Economic Review*, Federal Reserve Bank of Atlanta, November 1983. See also Joseph F. Sinkey, Jr., *Commercial Bank Financial Management*, Macmillan, New York, 1989.

flection of high-risk assets and deficient profitability. Yet once bank capital is inadequate, the likelihood of failure is significantly increased. Although the ratio of a bank's equity capital to its risk assets (loans, as opposed to cash and short-term investments) is one of the best measures of capital adequacy, there is little uniformity in how banks disclose the riskiness of their loans.<sup>2</sup> Therefore in this work we will examine the ratio of bank equity to total assets because it is a close approximation to risk assets and because its measurement is more uniform over the decades of our study. Although the riskiness of assets remains important, it is best captured separately in "asset quality" measures discussed below.

## 2. Asset Quality

Bank assets consist primarily of loans and securities, each of which carry two main risks. *Credit risk* is the risk that bank borrowers will default and fail to repay the principal amount of their loans. The likelihood of bank loan defaults increases with deterioration in the financial condition of an individual, a company, or a government and this deterioration can be due to mismanagement or economic recession or other factors. Banks can mitigate this risk by solid credit analyses and by prudently diversifying their portfolios of loans and securities. *Interest rate risk* is the risk that the rates earned on banks' loans and securities are insufficient in relation to market rates. This risk is a function of the term structure of interest rates (the level of short-term rates in relation to long-term rates), the general volatility of market rates, the maturity range of assets held, and the proportion of bank assets held in fixed-rate vs. floating rate loans. Loans bearing fixed rates (or rates adjusted slowly) will fall (or rise) in value due purely to the rise (or fall) in market interest rates. The most common interest rate risk occurs when fixed-rate loans with long maturities are held in a market of rising interest rates. In either case these risks can quickly diminish the value or "quality" of bank assets and undermine the financial value of the bank accordingly. Good accounting measures of asset quality often are difficult to obtain due to inadequate bank disclosure and regulatory obfuscation of unsound banks, but the most effective, easily measurable indicator of asset quality, and the one we shall use in this study, is the ratio of "nonperforming" loans to total loans. We will also make qualitative assessments of the types of loans made and the interest rate risks associated with various stages of banking history.

## 3. Liquidity

Strong liquidity is the ability of banks to meet demand deposit with-

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<sup>2</sup> West, Robert Craig, "Assessing the Financial Condition of Commercial Banks," *Banking Studies Working Paper #84-6*, Federal Reserve Bank of Kansas City, 1984.

drawals (conversions of deposit balances into the base money of the banking system) at any time and to meet time deposit withdrawals and debt obligations in accordance with underlying contractual provisions. A bank achieves prudent levels of liquidity by keeping a sufficient amount of assets in cash, by holding loans and securities that are short term and as such self-liquidating or salable in secondary markets, and by offering competitive interest rates that attract deposit inflows or sustain the existing deposit base. The growing ability of banks in recent decades to sell loans and securities for cash (as opposed to waiting for them to amortize into cash) is referred to as “shiftability,” while their ability to attract deposits by active solicitation is characterized as “liability management.” Analysts contend that these practices have minimized the need for banks to maintain liquidity in the form of cash or short-term, self-liquidating loans. But some writers have noted that “if all banks engage in a program of building up their investment assets, shiftability is found to be impaired.”<sup>3</sup> Moreover, “purchasing” deposits by liability management can quickly become an unreliable source of funds for unsound banks (as happened to Continental Illinois in 1984), and the policy can be cost-prohibitive for unsound banks (as happened to many Texas banks that had to offer excessively high rates to attract deposits in the past decade). These practices defy the very purpose of liquidity — to have sufficient cash precisely when times are difficult. In short, there is no good substitute for a liquidity policy based on cash in the bank and an adequate portfolio of short-term loans easily convertible to cash.

Some analysts have questioned the need for liquidity in the banking system as such, in contrast to the obvious need for deposit convertibility at a particular bank. They argue that there never really is any requirement that all banks in the banking system liquidate their positions simultaneously. Yet despite “shiftability,” widespread illiquidity aggravated the banking collapse of the 1930’s and to a lesser extent during the past 2 decades “liability management” also failed to offset bank illiquidity. Economists have warned that “there is solid truth in the older doctrine that the banking system is less vulnerable and more stable if the individual banks are in a genuinely liquid condition. If the individual components of the banking system are liquid, there is much greater likelihood that an incipient banking crisis can be kept under control and prevented from spreading into a disastrous financial conflagration.”<sup>4</sup> Recognizing the importance of cash or close substitutes for cash in managing bank liquidity, this work will measure the historical ratio of the banking system’s

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<sup>3</sup> Phillips, C. A., T. F. McManus, and R. W. Nelson, *Banking and the Business Cycle: A Study of the Great Depression in the United States*, Macmillan, New York, 1937, p. 108.

<sup>4</sup> *Ibid.*, p. 110.

cash assets (base money and other reserves) to demand deposits. In the case of free banking, base money includes specie and other redeemable money, while representative money includes demand deposits as well as private bank notes.

#### 4. Profitability

Profits are a crucial component of commercial bank stability, providing both an internal and external source of bank capital. When banks retain profits they are an important supplement to the existing base of capital. Further, the magnitude and stability of a bank's profits over time are indispensable for attracting external capital investment because a competitive and consistent rate of profit that rewards bank investors with dividends and capital appreciation induces them to invest further in the industry and in its most profitable members.<sup>5</sup> High profit rates are achieved by the efficient and prudent management of interest rate margins, credit and interest rate risk, controls on operating expenses, and competitive products and services. Profits also are a signal to bank management about the effectiveness of its policies and practices.

The best accounting measure of bank profitability is the ratio of bank earnings to total assets. Although the rate of return of greatest interest to bank investors is the rate of profit on equity, a bank's rate of return on assets is a purer measure of its profitability because it is a measure not influenced by leverage. Higher returns on equity achieved on successively lower levels of bank capital do not reflect underlying profitability and such leverage threatens the bank's basic solvency. Our study already includes a capital adequacy calculation, so the rate of profit on assets is an especially relevant measure for our purposes.

#### 5. Management

Safe and sound banking relies ultimately on the perceptiveness, prudence, and honesty of bank managers. No amount of financial analysis or regulatory oversight can immunize a bank or a banking system from the damage done by bank managements that are incompetent or fraudulent. Yet little theory has been developed on the determinants of bank management behavior other than the recognition that risk-taking is more or less encouraged under certain banking laws. The actual financial performance of banks often is considered the only genuine reflection of management competence while the extent of fraud is deemed the best measure of management's moral predilections. Although it is difficult to make general evaluations of the quality of bank management throughout the indus-

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<sup>5</sup>Hagaman, T. Carter, "Earnings Stability: Key to the Equity Market," *Journal of Bank Research*, Autumn 1975, pp. 183-185.

try and its history, this study will offer behavioral assessments about the competence and morality of bank managers and will suggest some important reasons why they may differ under free banking and central banking systems. Reference will be made to the education and training of bankers, the standards pertinent to promotion in the field, and the management incentives offered in different regulatory and institutional settings throughout banking history.

## **B. The Inter-Relatedness of Measures**

The five basic indicators of commercial bank financial stability discussed above are all inextricably linked. We can think of many such examples. Strong capital adequacy in the banking system can deteriorate rapidly if loan quality or profitability are poor. Banks may also appear liquid, but if their capital is inadequate depositors and investors might withdraw their funds and quickly deplete banks' cash reserves. Banks that must raise liquidity levels in an unfavorable market by the sale of assets may suffer losses and depletions to capital. Increased use of debt relative to capital may boost the rate of profit on capital, but at greater risk to banks' solvency. Profitability might be enhanced in the short term by banks investing in high-yielding assets but they are likely to carry such yields because of the underlying, greater risk of loan defaults. On the other hand, bank profits will suffer if institutions are excessively liquid with few invested assets. In short, banks cannot survive by strengthening one indicator at the expense of others. A prudent balancing of these measures reflects successful bank management.

Since these indicators are interrelated, in strict isolation none can accurately portray the condition of the banking system or of any particular bank. Yet taken together they offer a good assessment of the health of the industry. We should assign the greatest weight to the capital adequacy indicator because in many ways it encompasses the other measures and is the banking industry's link to the capital markets. The industry's internal generation of capital reflects sound loans (asset quality) and profitability, while its ability to attract external capital is good evidence of how the capital market judges the health of the industry relative to alternative investments. Consequently, though our study will assess each of these basic indicators it will pay special attention to the factors influencing capital adequacy and its historical evolution under central banking and free banking.

## **C. The Single Bank vs. the Banking System**

In analyzing bank safety and soundness it is crucial to distinguish between the financial condition of an individual bank and that of the banking system. Relatively sound banks may exist within an unsound and

unstable banking system such as central banking and unsound banks may operate within an inherently stable system such as free banking. The basic financial indicators outlined above are relevant in either case. If we assess only the condition of particular banks against their peers we fail to capture the possibility that the entire industry may be deteriorating. It is crucial not only that individual banks succeed relative to competitors but that the banking system succeed in its ability to earn profits sufficient to reward investors and attract capital in competition with other industries. In this respect a single, financially weak bank may disrupt local economies and lose business to other stronger banks in the industry but more significant is a banking system prone to financial weakness that disrupts the entire economy and loses investor capital to other stronger and more efficient financial intermediaries in the market. Given the universal influence of money and credit on the intermediation of savings and investment and on the efficient functioning of the economy, prosperity is undermined far more by a deteriorating and unstable banking system than it is by individual problem banks within an inherently stable system.

The failure to make the bank/banking system distinction has contributed to misguided public policy throughout much of our banking history. Under free banking systems in the 19th century the failure of particular banks was used in part to condemn the entire system and to justify further interventionism. Alternatively, in this century the central banking system is assumed to be such a sound and stabilizing influence that particular unsound banks are not “permitted” to fail and are to be rescued at any cost. But the prevention of bank failures at the cost of creating an institutional framework that promotes unsound banking is hardly a prescription for long-range success. If we distinguish between particular banks and the banking system we avoid the disastrous public policy prescriptions that have been based either on the fallacy of composition (concluding that what is true of the parts is true of the whole) or the fallacy of division (concluding that what is true of the whole is true of the parts). In other words, the experience of a few unsound banks is not sufficient evidence to condemn an entire banking system and a monopolist central banking system does not mean that every bank within it must be indestructible. In the long run an unsound institutional framework that favors imprudent managers at the expense of those who are competent increases the likelihood that individual banks and the banking system will suffer. Our study focuses primarily on the institutional arrangements of two distinct banking systems and how they affect the financial condition of banks in the aggregate, not in particular.

#### **D. Central Banking vs. Free Banking**

Money and banking in the United States have been characterized by a

vast array of very different systems containing both market and statist features. We therefore need clear and consistent definitions of central banking and free banking to guide our research. Over the course of more than 2 centuries the U.S. economy has seen variously gold money, specie-convertible bank notes, fractional deposit banking, government-operated gold standards, gold exchange standards, and government monopoly money. In banking we have seen free banking, state banking, national banking, central banking, and socialized credit. This crazy-quilt history poses problems for economists and banking historians who must sort out the relative merits and demerits of particular arrangements. In general, they have interpreted money and banking systems as evolving naturally with the stages of economic development. But they also have acknowledged that they have been shaped in some manner by government regulation. For most of this century economists have favored central banking while they dismissed free banking as either too primitive to be a factor in our early economic development or too chaotic to remain unregulated. Central banking has been considered both a natural outgrowth of an advancing economy and a modern, scientific instrument enabling government to somehow guarantee economic growth and prosperity.

In recent decades a growing skepticism about the merits of interventionist economics has coincided with a growing respect for free market insights. There has been widespread dissatisfaction with central banks and government intervention because of the chronic inflations and economic stagnation they seem to bring. There is greater appreciation for the rapid economic development achieved in 19th century America, when freer markets and free banking systems were permitted to operate. A free banking school has re-emerged as an alternative to the statist system of central banking and to re-examine the varied history of U.S. banking. This history offers a unique set of experiments and an opportunity to explore the benefits and hazards of distinctly different money and banking systems. Pure systems of free banking or central banking have never existed in the United States nor anywhere else because governments throughout history have always intervened to some extent in banking operations. But it is precisely the wide variations in intervention that give us an opportunity to characterize various banking eras as more or less free and to examine the consequences accordingly.

By developing distinctive theories and descriptions of free banking and central banking, hopefully we can examine banking theory and practice more accurately and guide banking reform more usefully. The importance of consistency in describing the characteristics of central banking and free banking will be apparent throughout our study. For years economists have been inconsistent and inexact in characterizing particular

banking eras, and inadvertently have fostered widespread misinterpretation and public policy errors. The failure to specify the chief characteristics of the systems under study permitted economists to attribute bad outcomes to the free market. Only by separating the mixture of market and statist features can one draw warranted conclusions about the merits and demerits of each component. We therefore describe at the outset the key features of the two basic systems that will guide our study. Free banking is a system of full, laissez-faire money and credit in which banks are privately owned and operated and their purpose is to finance production and trade at a profit. Under free banking, government's only legitimate function is the enforcement of voluntarily designed contracts. This description is distinct from the "free banking" commonly presented in U.S. history, the system of relatively unrestricted bank chartering and entry from 1836 to 1863 when states regulated bank portfolios and note-issuing practices. Following the same theoretical consistency, we describe central banking as any and all forms of government intervention in the banking system, specifically a legal tender monopoly on the issue of bank notes, a lender of last resort, mandatory deposit insurance, and the regulation and/or ownership of banks. The scope of central banking properly understood goes far beyond Federal Reserve policy since 1913 because, as we shall see, government deposit insurance and bank regulation are a necessary adjunct to those policies.

### III.

## THE THEORY OF THE EFFECTS OF CENTRAL BANKING ON THE FINANCIAL CONDITION OF THE COMMERCIAL BANKING SYSTEM

**I**N this chapter we examine the basic features of central banking as they have evolved in the United States and present a theory of how they influence the financial condition of the commercial banking system.

### A. Basic Characteristics of Central Banking

The four basic characteristics that comprise central banking are 1) a government monopoly of money, usually consisting of the nation's currency and bank reserves, 2) a central bank as a "lender of last resort" of the monopoly money, 3) government deposit insurance, and 4) government regulation of private banking practices, including entry, exit, loan portfolios, customer services, and geographic scope. These characteristics are basic to central banking because such a system could not exist (or would be powerless) if any of them were absent. Moreover, the main features of central banking are interdependent. Without a government monopoly on money, banks would be free to issue their own money and would not require a lender of last resort. Deposit insurance is required to prevent private bank runs seeking base money that is monopolized and controlled by the central bank. Government regulation of banks is intended to protect the deposit insurance fund against excessive bank risk-taking. Central banking systems worldwide and throughout history share these four basic features, although they differ in detail or in the degree to which their powers are exercised. As our study is limited to the American form of central banking, we next review the evolution of its basic characteristics.

#### *1. Government Monopoly of Money*

Although the U.S. Government established politically favored banks in its early history (the First Bank of the United States from 1791-1811 and the Second Bank of the United States from 1816-1836), the banks did not have a monopoly on money and the Congressional charters governing them contained expiration dates. Although influential, the banks never possessed the kind of central banking powers we observe in this century. Through most of the country's first century, the only lawful money was gold and silver coin, as established in the U.S. Constitution. That this money was "lawful" meant not that people were compelled to use it to the exclusion of other forms of money but that the courts would recognize such money in adjudicating contractual disputes. Other forms of money

such as bank notes and deposits convertible into specie circulated freely. Not until the Civil War did the government take its first step toward imposing its own brand of money. In February 1862 Congress passed the Legal Tender Act that mandated that \$450 million in newly issued government “greenback” currency be accepted as lawful money. The greenbacks were issued to finance the war, but were not convertible into specie and as such constituted the first nationwide fiat money issued since the Nation was established. Although there were various challenges to the constitutionality of the greenbacks, the Supreme Court upheld the Act in the “Legal Tender” cases of the following 2 decades. Still, even greenbacks were not strictly a monopoly money. Recipients of greenbacks were compelled to accept them if tendered in payment, but other forms of money of much better quality still were permitted to circulate. This would change in the next year.

The National Bank Act of 1863 was passed to insure a ready market for the growing supply of government bills, notes, and bonds issued to finance the Civil War. Demand for the securities was limited by uncertainty about the government’s finances. The Act required all banks to collateralize their issues of private bank notes with the government’s securities. Although a similar bond-collateral system had been employed by state governments, the Act included a tax on state bank notes, which effectively removed them from circulation. The Act moved the country closer to a nationalized currency because it began to tie bank notes to the state of government’s finances and mandated that all private bank notes have a uniform appearance and include U.S. Treasury Department designations. Yet for another 50 years alternatives to national bank notes still were available and widely used in the market, including specie and bank deposits.

The establishment of the Federal Reserve System in 1913 completed the government’s gradual monopolization of money. Legal tender status was extended to Federal Reserve notes and national bank notes issued by private institutions under the 1863 Act were phased out of circulation. The Federal Government now possessed an exclusive monopoly on money. The issuance of competing bank notes was prohibited and the names of individual private banks were no longer permitted to appear on currency. Banks continued issuing checking deposits but the accounts were by law convertible into government’s monopoly money. Moreover, reserves for deposits were no longer managed by individual banks but centralized at the Federal Reserve. As we have noted earlier, this monopolization and centralization of money and bank reserves is a basic feature of central banking. The Federal Reserve Act established the system’s “notes” as promises to pay specie because this was the kind of money the market had

accepted and trusted for decades. But this obligation was removed by legislation in 1934 and the use of specie or specie-backed currency for monetary purposes was made illegal. Whereas the Legal Tender Act of 1862 introduced government fiat currency (greenbacks) into a market of widely accepted forms of money, the Federal Reserve Act of 1913 and its amendments prohibited free market money in favor of an exclusive government monopoly of fiat paper money (Federal Reserve notes).<sup>1</sup>

Few economic justifications were offered for a government monopoly on money as it was evolving because most people recognized that government's primary motivation was to raise revenue. Only after the monopolies were established did economists try to offer more formal arguments, but these usually were no more than elaborate rationalizations for what had already been mandated. The most influential argument was George Friedrich Knapp's *The State Theory of Money*, which appeared in Europe at the turn of the century and reached the United States in the 1920's.<sup>2</sup> Knapp observed the growing number of government currencies worldwide and concluded that government conferred value on money that it would not otherwise possess in a free market. John Maynard Keynes also promoted this view in the United Kingdom and the United States. Underlying these arguments was a recognition of a need for state compulsion if government money was to have any "acceptability" in the market. But these were political, not economic, arguments and they generally ignored or mocked the long historical acceptability of gold and other private monies prior to state monies.

Building on Knapp and Keynes in the decades since, economists in favor of central banking have offered more technical objections to free market money. Economist Roland Vaubel has surveyed these objections, the most important for purposes of this discussion being 1) that private, competitive production of the money supply is inflationary, and 2) that laissez-faire banking is inherently unstable.<sup>3</sup>

Vaubel and others influenced by "public choice" theory in economics have begun to question the legitimacy of a government money monopoly. They have extended the traditional economic theory of monopolist be-

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<sup>1</sup> For a good history of this remarkable legal transformation, see Henry Mark Holzer's *Government's Money Monopoly*, Books in Focus, New York, 1981.

<sup>2</sup> Knapp, George Friedrich, *The State Theory of Money*, 1905, MacMillan, London, 1924.

<sup>3</sup> Vaubel, Roland, "The Government's Money Monopoly: Externalities or Natural Monopoly?," *Kyklos*, No. 1, 1984. Vaubel also includes: 1) the private nonbank sector is inherently unstable and has to be stabilized by monetary policy, 2) monopolistic government production of money is the most efficient way of raising government revenue, 3) the supply of money is a natural monopoly due to economies of state in production or use, and 4) money exhibits "externalities" and is a "public good."

havior to government in its monopoly of base money, demonstrating that it maximizes the real revenues it can extract from its unrestricted monopoly power to issue fiat money.<sup>4</sup> Yet unlike free market issuers of money, the Federal Reserve is constrained by no potential reserve depletion, is subject to no rules or market discipline, and practices complete unscientific discretion. No private monopolist could ever achieve this amount of discretion.<sup>5</sup> Public choice theorists believe government is no less motivated by self-interest than are market participants. They find that in the history of U.S. banking, central banking elements were introduced not for the purpose of smoothing business cycles or bringing money and banking under more intelligent control but rather to provide a means for financing government expenditures when taxation was not expedient. Borrowing was “facilitated” by forcing the banking system to purchase government securities or by using the deposit multiplier to expand money and credit.

More important than the original intent of those promoting a government legal monopoly of base money is the fact that the monopoly is a precondition for the negative effects of central banking on banks. Under a central banking regime the total supply of money and credit is determined primarily by the central bank’s attempts to manipulate the interest rates and the reserve position (liquidity) of the banking system. However, the central bank has no direct, daily contact with the business community and its credit needs. Bankers are in a far better position to determine the financial condition of borrowers, their ability and willingness to repay loans, and the economic integrity of the underlying transaction to be financed. The informational disadvantage of central bankers in relation to private bankers does not reflect a lack of intelligence. Rather, it results from the fact that government planners cannot know what millions in the market know. This shortcoming was recognized years ago by Ludwig von Mises and the Austrian school of economics in their critiques of socialism. It is a critique that applies to central banking as well.<sup>6</sup> Informational deficiencies are not the only obstacle to the optimal management of a monopoly currency. Central bank policy also attempts to override market processes. Central banks attempt to spur investment and economic growth by lowering the rate of interest below the natural rate that would be established in a free market. In many cases nominal interest rates are high

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<sup>4</sup> Buchanan, James M. and H. Geoffrey Brennan, *Monopoly in Money and Inflation*, The Institute of Economic Affairs, London, 1981.

<sup>5</sup> Wagner, Richard E., “Central Banking and the Fed: A Public Choice Perspective,” *The Cato Journal*, Fall 1986, pp. 519-538.

<sup>6</sup> Butos, William N., “The Knowledge Problem Under Alternative Monetary Regimes,” *Cato Journal*, Winter 1986, pp. 849-871. The seminal work in this area is Ludwig von Mises’ *Socialism*, 1932, Liberty Classics, Indianapolis, 1981.

because of government borrowing from a finite savings pool to cover budget deficits. Yet rapid additions to banking reserves and the money supply to achieve lower rates usually only has an effect in the very short run. In the long run, nominal interest rates rise above those that would exist in a free market as a consequence of inflationary expectations. Still, before this adjustment takes place, the cost-of-capital or “hurdle rate” for less desirable business projects is artificially lowered and banks are induced to finance unsound and uneconomic projects. The eventual return to equilibrium, to a real rate of interest that more closely approximates the natural rate, necessarily involves the liquidation of unsound credits.<sup>7</sup> Instead of a single bank or even a cluster of banks making isolated bad loans, the central bank manipulation of interest rates promotes widespread malinvestment. In this way the central bank money monopoly has a negative effect on bank loan quality and profitability.

Although central bank policy is aimed at influencing money and credit in the aggregate, it must necessarily do so by influencing the balance sheet of the banking system since “money” is primarily the system’s demand deposits and “credit” is its loans and investments. Hence when the Federal Reserve attempts to control money and credit it must exercise control over the banking system balance sheet. The far greater proportion (85 percent) of that which is considered “money” today consists of demand deposits of banks, but these deposits do not constitute private money because government requires that they be convertible upon demand into monopoly legal tender money. Central banking also promotes an ever-lower fractional reserve banking system so that deposit expansion becomes a multiple of the monetary base it supplies. Further, aggregate deposits in the banking system expand due to central bank infusions of reserves and the lending and money-multiplier process; interbank transfers of existing deposits or savings change relative, not aggregate, deposit levels. Later in the chapter we will discuss how this unrestrained monopoly on the production of legal tender and reserves has a deleterious effect on the financial condition of the banking system.

## 2. *Lender of Last Resort*

Another significant feature of central banking relevant to commercial bank stability is the Federal Reserve’s role as “lender of last resort.” The first writers to formulate lender-of-last-resort principles were two 19th century British central banking theorists, Henry Thornton and Walter Bagehot. The Bank of England was the first central bank ever established (1694) and there was active debate over the proper guidelines for its

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<sup>7</sup> Hayek, Friedrich A., *Monetary Theory and the Trade Cycle*, Harcourt Brace, New York, 1932.

operation, especially during the banking panics so common in Britain at the time. Thornton advised the central bank to restrict its note issue whenever it experienced a drain of its gold reserves to foreign countries in settlement of foreign trade. But he also argued for liberal note expansions when the domestic demand for money rose precipitously. Thornton's focus was on salvaging system illiquidity, not illiquid or imprudently managed individual banks.<sup>8</sup> Bagehot elaborated and refined Thornton's analysis but also made his own contributions, agreeing that the lender of last resort must lend in times of emergency, and also must pronounce clearly in *advance* of such emergencies that it would lend freely. He opposed restrictions on the kind of borrower or the type of collateral to be designated as eligible for borrowing, although he supported a penalty interest rate.<sup>9</sup> Although Thornton and Bagehot warned against undue reliance by the banking system on the lender of last resort and although they both stressed that the central bank was not meant to substitute for prudent bank practices, they were nonetheless advocates of central banking. They heavily influenced American as well as British thought on central banking.

In this century the discretion and powers of the lender of last resort have been extended considerably beyond the early prescriptions of Thornton and Bagehot. The very business of central banking accounts for this evolution toward greater discretion. Having dispensed with gold, today central banking has no objective monetary guide. Also, the lender of last resort cannot effectively distinguish an illiquid from an insolvent bank; nor can it accurately assess whether particular bank insolvencies may spread to the entire system.<sup>10</sup> This is yet another consequence of the information inadequacies inherent in central banking discussed earlier. Moreover, the lender of last resort is not charged with determining the source of illiquidity; its crude but simple function is to stop panics when they occur or to prevent them from occurring by dispensing with credit standards and promising to lend indiscriminately. Banks no longer have to make sure that they have valuable commercial paper to pledge for central bank borrowings, as in the days of Thornton and Bagehot — now everything is “eligible.” Today there are few limitations on the Federal Reserve's willingness to act as a lender of last resort to any bank, regard-

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<sup>8</sup> Hetzel, Robert L., “Henry Thornton: Seminal Monetary Theorist and Father of the Modern Central Bank,” *Economic Review*, Federal Reserve Bank of Richmond, July/August 1987, pp. 3-16. Thornton, Henry, *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain*, Rinehart & Company, Inc., New York, 1939.

<sup>9</sup> Bagehot, Walter, *Lombard Street: A Description of the Money Market*, Kegan, Paul & Co., London, 1873.

<sup>10</sup> Rockoff, Hugh, “Walter Bagehot and the Theory of Central Banking,” Chapter 5 (pp. 160-180) of *Financial Crises and the World Banking System*, F. Capie & G. Wood, Eds., St. Martin's Press, New York, 1986.

less of its financial condition. It is widely recognized that individual, poorly managed banking institutions will be rescued by the central bank in its capacity as lender of last resort. There are no longer any significant penalties either, because the discount rate is always kept below market rates. A number of banks have also been designated as “too large to fail.” In many cases the problem is not the inability of central banking to distinguish insolvency from illiquidity but the refusal to do so. Infusions of liquidity are used to mask insolvency. Under central banking this is done by granting banks immunity from general bankruptcy laws. There is no other industry so universally relieved of the obligation to pay its debts.<sup>11</sup> Declarations of insolvency often are avoided in order to “protect” the record of regulators who are said to be responsible for banking system safety.<sup>12</sup> Despite its shortcomings, 19th century central banking in Britain was constrained by the gold standard and prudent bank management, both vestiges of an earlier free banking era. Central banking powers in the United States for most of this century, however, have been subject to no rational constraints. Later in this chapter we elaborate on why lender of last resort powers have deleterious effects on the financial condition of the banking industry.

### 3. *Government Deposit Insurance*

Central banking is also characterized by the provision of government insurance of bank demand deposits. We have already discussed the imprecision inherent in central banking’s management of the money monopoly and the lender of last resort function. These functions do not provide any assurance that the banking system will be stable and free of panics and, as we will see, they actually tend to promote instability. As a result, government typically employs some kind of deposit guarantee to allay depositors’ fears. In the United States, Federal deposit insurance was instituted in 1934 in response to the 1930’s banking collapse instigated by the Federal Reserve’s gross mismanagement.<sup>13</sup> Instead of re-examining the money monopoly and lender of last resort powers of the central banking regime, government deposit insurance was simply superimposed on the existing institutional framework. The goal was to prevent bank failures, not to insure the financial soundness of individual banks or the system. Deposit insurance in the form provided by the FDIC was unobtainable in a free market because it priced all bank risks equally and was never intended to hold reserves sufficient to settle numerous bank failures. Fractional re-

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<sup>11</sup> Benston, George J. *et al.*, *Perspectives on Safe and Sound Banking*, MIT Press, Cambridge, 1986, p. 92.

<sup>12</sup> *Ibid.*, p. 114.

<sup>13</sup> Friedman, Milton and Anna Schwartz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, Princeton, 1963.

serve banking, prompted under central banking regimes, increases the likelihood of system-wide failures. Systemic risk is made possible by centralized reserve management, but it is uninsurable in a free market. Private insurers have neither the ability to issue fiat (nor any other) money nor access to a lender of last resort. It is widely admitted that any threatened depletion of deposit insurance reserves due to bank failures would be met by infusions from the central bank and the U.S. Treasury. A March 1982 Joint Congressional Resolution put the "full faith and credit" of the United States behind Federal deposit agencies<sup>14</sup> and the Federal Reserve was given authority to lend directly to the agencies. We will see shortly how deposit insurance further undermines the financial condition of the banking industry.

#### 4. *Entry, Portfolio and Geographic Regulation*

Central banking also is characterized by extensive regulation of the banking industry.<sup>15</sup> First, central banking restricts entry into banking by limiting ownership to financial companies, by isolating banking from other commercial industries, by restricting mergers and acquisitions, and by imposing branching restrictions. Increasingly, exit from the industry or from certain economic regions also has been restricted as banks are required to serve particular communities for "social welfare" reasons.<sup>16</sup> Central banking also regulates bank portfolios by imposing reserve requirements, interest rate ceilings, and geographic constraints on where banks may make loans or collect deposits. Geographic regulation and restrictions on branching impair diversification of bank assets and funding sources. These restrictions also weaken the financial condition of the banking industry.

Government regulation of banking practices is a natural outgrowth of the main features of central banking. It is by regulation that the central bank is said to "protect" the deposit insurance fund and the discount window (functions that arise because of the monopoly of money) against access by reckless bankers. But, as we will see below, central banking's main features tend to encourage such reckless banking practices. As a result, central banking must by necessity impose regulation of bank man-

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<sup>14</sup> Benston, George J. *et al.*, *Perspectives on Safe and Sound Banking*, MIT Press, Cambridge, 1986, p. 125.

<sup>15</sup> As we discuss in later chapters, this is the only central banking characteristic opposed by bank managers themselves, who interpret access to the lender of last resort and deposit insurance as beneficial and who are generally unaware of the historical government usurpation of the specie-based note-issuing function once conducted by many of their own institutions.

<sup>16</sup> The Community Reinvestment Act of 1974, for example, mandates that banks lend to poor credit risks.

agement practices and lead to more extensive political control over lending policies.<sup>17</sup> The politicization of credit follows necessarily from the politicization of money for two reasons. First, money and credit are inextricably linked because credit is simply money lent and repaid over time. Second, government control over money often is exploited for political purposes and as such tends to encourage imprudent banking practices. But it is the “freedom” of bankers to be reckless, not the role played by central banking in promoting recklessness, that usually is cited when greater regulatory controls are imposed. John Maynard Keynes recognized and encouraged the exploitation of this implicit connection between government macroeconomic and microeconomic intervention. In *The General Theory of Employment, Interest and Money* (1936), Keynes wrote “I am skeptical of the success of a merely monetary policy directed towards influencing the rate of interest. I expect to see the State, which is in a position to calculate the marginal efficiency of capital goods on long views and on the basis of general social advantage, taking an even greater responsibility for directly organizing investment” (p. 164). “It seems unlikely,” he argued, “that the influence of banking policy on the rate of interest will be sufficient by itself to determine the optimum rate of investment. I conceive, therefore, that a somewhat comprehensive socialization of investment will prove the only means of securing an approximation to full employment.” Keynes was not merely advocating a government public works program. He believed central banking alone had the power to promote economic prosperity and that “the duty of ordering the current volume of investment cannot be safely left in private hands” (p. 320). In practice, however, government credit allocation and controls do not lead to economic prosperity and efficiency but the opposite.<sup>18</sup>

## **B. How Central Banking Creates an Unsound Banking System**

Having examined the relevant characteristics of central banking, we now present a theory of how central banking’s main features undermine the financial condition of the banking system.

### *1. Diminished Capital Adequacy*

Capital adequacy in the banking system is likely to deteriorate under a

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<sup>17</sup> The inevitable connection is discussed in “Integrating Macro and Microeconomics: An Application to Credit Controls,” by Neil Wallace, in *Quarterly Review*, Federal Reserve Bank of Minneapolis, Fall 1980. Officials of the Federal Reserve System also recognize the relationship; see *Credit Allocation Techniques and Monetary Policy*, Federal Reserve Bank of Boston, 1973.

<sup>18</sup> See “Credit Allocation: A Critical View,” by Thomas Mayer, in *Government Credit Allocation*, Institute for Contemporary Studies, San Francisco, 1975. Also, see Edward Kane’s “Good Intentions and Unintended Evil: The Case Against Selective Credit Allocation,” *Journal of Money, Credit and Banking*, February 1977, pp. 55-69.

central banking framework. The central bank monopoly on fiat base money together with its politically motivated expansion leads to monetary growth rates in excess of the growth rates of real output. Since the money supply is comprised largely of demand deposits in the banking system, the balance sheet of the industry is likely to expand at rates in excess of the growth rate of its capital.

This problem is inherent in central banking because under such a regime banks represent the transmission belt from central bank creation of base money to bank loan and deposit creation. Under central banking, loan and deposit expansion is not related directly to expanding or contracting levels of production and trade. Any direct link between nominal and real economic variable is severed. Commercial lending and deposit creation does not solely discount commercial paper arising from trade or limit itself to bridging the time period from the production process to the final sale of output. Rather, base money is created by the central bank for many noneconomic, political motivations such as to influence elections, or to offset disequilibrium in the labor market, or to finance and facilitate the distribution of government securities, or to meet budget deficits, or to finance wars. A growing economic literature demonstrates these and other political motivations for the creation of base money.<sup>19</sup> In turn, banks finding themselves with excess reserves create deposits (as a multiple of base money) through the lending function. Central banking promotes the expansion of bank money and credit not because real capital has been accumulated nor because real trade has taken place, but simply by injecting a supply of fiat base money and reserves into the banking system.

The effect on the financial condition of the banking system is that loans and deposits tend to increase at rates exceeding the rates at which capital can be generated internally or attracted externally. To demonstrate why the internally generated capital base cannot keep pace with the expansion of bank balance sheets, suppose a bank with the following profile:

**THE SINGLE BANK**  
(Dollars in Billions)

Assets	Liabilities
Federal Reserve notes & reserves    \$5.7	Deposits    \$19.00
Government securities                    5.80	Capital
Commercial loans <u>13.63</u>	Equity <u>1.00</u>
Total Assets                                 \$20.00	Total Liabilities & Capital                 \$20.00

Consistent with industry experience under our current central banking

<sup>19</sup> Willet, Thomas D., Ed., *Political Business Cycles: The Political Economy of Money, Inflation and Unemployment*, Duke University Press, Durham, 1988.

framework we observe a reserve ratio of 3 percent and a capital ratio of 5 percent. Government creation of base money is undertaken by the open market purchase and sale of its own securities through the banking system, so that banks serve as the transmission mechanism for money creation under central banking. Suppose the money supply in the economy is \$22 billion (\$19 billion of demand deposits and \$3 billion of currency in public hands). By whatever motivation, the central bank decides to expand the money supply by 10 percent per annum, a common occurrence in the past few decades. This requires a \$2.2 billion increase, which can be achieved by a base money infusion of approximately \$66.1 million (given a reserve ratio of 3 percent, or a multiplier of 33.3 $\times$ ). By analyzing the stages of this process we can observe its full impact on the balance sheet of the banking system (see table below).

Column A represents the stage prior to base money infusion through open market operations and Column B represents the effects of central bank purchases of securities for cash and reserves. After the infusion, banks act to bring the reserve ratio back down to minimum requirements, from 3.35 percent to the original 3 percent, by lending out excess reserves. To maximize returns, banks minimize holdings of nonearning assets such as excess reserves. Central banking promotes lower reserve holdings by “promising” liquidity under any condition. Excess reserves in the banking system can be eliminated only by the process of lending and creating new deposits. We assume here that banks preserve the original proportion of government securities and commercial loans in the portfolio. This signifies that while central banking actively influences the aggregate supply of money and credit, the banking system manages its composition, subject to portfolio and geographic regulation. Deposit and credit expansion occur simultaneously because loan proceeds are deposited into accounts throughout the banking system.

**THE BANKING SYSTEM**  
(Dollars in Billions)

<i>Assets</i>	<i>A</i>	<i>B</i>	<i>C</i>
Federal Reserve notes & reserves	\$ .570	\$ .636	\$ .636
Government securities (29%)	5.80	5.73	6.431
Commercial loans (68.2%)	<u>13.63</u>	<u>13.63</u>	<u>15.113</u>
Total Assets	\$20.00	\$20.00	\$22.18
 <i>Liabilities</i>			
Deposits	\$19.00	\$19.00	\$21.18
Capital	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>
Total Liabilities & Capital	\$20.00	\$20.00	\$22.18
Reserve Ratio	3%	3.35%	3%
Capital Ratio	5%	5%	4.5%

Column C shows that this base money infusion lowers the capital ratio of the banking system by 10 percent (from 5 percent to 4.5 percent). To maintain the original capital ratio within this new, expanded balance sheet the banking system requires \$115 million of new capital. There would then be \$1.115 billion of capital supporting \$22.295 billion of assets. Without this additional capital, the capital adequacy of the system must deteriorate.

New capital required to support an expanded balance sheet can only originate from internally generated retained earnings and/or externally attracted equity investment. But the marginal revenue earned from the increase in bank assets (interest income) usually does not exceed the marginal costs incurred from the increase in bank liabilities (interest and other expenses) in sufficient magnitude to preserve the capital ratio. The excess of revenues over expenses (and taxes), or net income, is the source of internal capital. In banking today, net income is approximately 0.5 percent of assets and about 60 percent of it is retained as capital. The balance is paid out in dividends. In our example, a 0.5 percent return on average assets of \$21.1 billion and a retention of 60 percent generates only \$63 million of internal capital, far short of the \$115 million needed to preserve the capital ratio at 5 percent.

One solution might be to pay no dividends and retain all earnings, but this still would bring only \$106 million of internal capital. Further, a bank stock paying no dividends would not be well accepted in the capital markets, severely restricting a bank's access to external capital. Investors expect returns in the form of dividends and capital gains. They would avoid banks that pay no dividends and whose retained earnings were still short of the amount required to preserve its long-run solvency. If 40 percent of net income were paid out in dividends and 60 percent were retained, the return on assets would have to be nearly 1 percent. This profitability on assets is achieved by few banks, especially when money and credit are expanded faster than 10 percent a year, as in our example. If less than the required capital is generated internally, the system relies heavily for its new capital on external sources. The dilution to existing shareholders resulting from such significant externally raised equity would be strongly resisted by bank managers. Market anticipation of such a possibility would be reflected in a lower stock price. It is unavoidable that bank capital adequacy deteriorates in the face of central bank monetary policy. For political reasons, central bank policy inflates money and credit, and hence the balance sheet of the banking system, at rates that exceed banks' sustainable rates of growth.

Coincident with central banking's unrestricted monopoly on fiat notes and bank reserves is its power to determine the quality of bank reserves

and to set actual reserve-to-deposit ratios in the banking system. As described, public choice theory suggests that a central bank often is guided by political (not economic) criteria, and for its own benefit will maximize the capacity of the banking system to inflate the supply of money and credit.<sup>20</sup> We would expect therefore that the central banking regime would act over time to sanction ever-riskier fractional reserve banking, by introducing lower-quality fiat characteristics into that which qualifies as reserves, and by promoting lower reserve-to-deposit ratios than would otherwise exist under a free banking framework. The problem of reserve quality and reserve ratios is examined more fully below in the discussion of the effects of central banking on banking system liquidity. Here it is only necessary to observe that the progressive introduction of lower-quality reserves, the gradual lowering of reserve ratios, and the increasing discretionary overproduction of reserves results in a higher and rising deposit expansion multiplier. In sum, we would expect that the enhanced inflating capacity inherent in central banking indirectly deteriorates the capital adequacy of the banking system through which money creation takes place.

Individual banks that wish to preserve their capital adequacy by not increasing their loans and deposits too rapidly often find themselves at a competitive disadvantage. They will be reluctant to refuse loan requests or deposits from customers when other banks are expanding. Central banking transforms the usually beneficial effects of competition into a detrimental competition of imprudent expansion.

The lender-of-last-resort function inherent in central banking also encourages capital inadequacy in the banking system. The central bank agrees to lend reserves to illiquid banks even if they also are insolvent. The lender of last resort is not concerned with the cause of the illiquidity, even if it arises due to depositors anticipating a bank's insolvency. The illiquidity, not the insolvency, is seen as the problem requiring a solution. When illiquidity arising from the threat of bank insolvency is remedied by such nonmarket "lending" as the central bank provides, and when such lending is promised unconditionally as a matter of policy, capital adequacy is further undermined, or at least not rectified.

The expectation that central bank lending is unconditional and unlimited derives from the fact that it is not actually lending at all. Last resort

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<sup>20</sup> White, Lawrence H., "Inflation and the Federal Reserve: The Consequences of Political Money Supply," *Policy Analysis No. 8*, The Cato Institute, April 15, 1982. White lists the major motivations to inflate as 1) the government's ability to erode the real value of its debt by debtholders who do not anticipate its inflation, 2) the automatic supplement to tax receipts due to a progressive income tax structure and artificially inflated business profits, and 3) the government's ability to costlessly obtain real resources with paper money.

lending by a central bank does not have its source in some existing supply of capital or reserves. In the marketplace, "lending" consists of the transfer of existing purchasing power from one party to another, in which one foregoes its use over time in return for interest. But a central bank committed to rectifying banking system liquidity does not lend or transfer existing reserves. It "creates" reserves, not out of real resources or capital but solely by virtue of its monopoly power over fiat base money creation. This monopoly power sanctions risky banking and promotes banking system leverage through enhanced inflating capacity. Advocates of central banking believe that such a reserve base is beneficial because it is nearly costless. But the creation of fiat reserves costs the banking system its long-term strength.

Central banking's provision of deposit insurance with artificial ceilings on interest rates paid on those deposits also diminishes capital adequacy in the banking system. Finance theory demonstrates that firms (banks included) will choose a proportion of debt and equity in their capital structure that minimizes the blended cost of capital. But a government-guaranteed deposit system that is backed by a central banking institution with a monopoly on fiat base money creation, lender-of-last-resort powers, and the right to limit deposit rates, artificially lowers the cost of debt financing for banks and increases the proportion of debt (and lowers the proportion of capital) in the balance sheet of the banking system. Banking is the only industry in which the government agrees to guarantee the short-term liabilities of every participant. It is an arrangement that naturally encourages the use of debt (deposits) instead of capital to finance asset growth. There is a substitution of "public capital" (government-insured deposits) for "private capital" (equity that would have been employed in the absence of government-guaranteed deposits).<sup>21</sup> The imposition of corporate taxation and the tax-deductibility of interest expense (but not dividends) also reflects government intervention and further promotes leveraging and capital inadequacy in the banking industry. Although the banking industry shares with other industries this tax-driven motivation to employ more debt than capital, corporate taxation and tax-deductible interest nonetheless remain nonmarket factors bearing on the decision to leverage. They would not be operative in a free market.

Although most central banks are legislatively independent of deposit insurance funds, the mechanics of a separately established deposit insurance agency (*i.e.*, with a fund that potentially could be depleted) do not change the fundamental, underlying incentives for bankers to substitute

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<sup>21</sup> Peltzman, Sam, "Capital Investment in Commercial Banking and Its Relationship to Portfolio Regulation," *The Journal of Political Economy*, January/February 1970, pp. 1-26.

guaranteed demand liabilities for equity. As discussed, such an agency possesses *de facto* if not *de jure* support of the Federal Treasury and/or access to the central bank's fiat note issue monopoly in the event of depletion of the deposit insurance "reserve." Just as the government as lender of last resort is not actually engaged in "lending," so the government as insurer of deposits is not actually engaged in "insuring." Central bank deposit insurance lacks market-driven, risk-based "premiums" and operates with inadequate loss reserves. Without a lender of last resort or access to taxing power, the system cannot survive, and both of these funding sources are unobtainable in a free market. According to one analyst, "with a flat schedule of deposit insurance premiums the manager of a bank can maximize the value of the subsidy to shareholders by pushing contributed capital as close to zero as permitted by regulators."<sup>22</sup> The problem is not simply that government deposit insurance is mispriced. "Market-based pricing" of government deposit insurance is a contradiction in terms and ineffective because government has no advantage over the market in accurately judging and pricing risk.

Central banking also restricts entry into the banking industry by establishing an artificial separation between banking and commerce and by limiting mergers and acquisitions within the industry. We would expect this feature of central banking to discourage the attraction of external capital into the industry and give further impetus to deterioration in banking system capital adequacy.

We would expect that despite central banking's intention to minimize the insolvency of individual banks, the net effect of its main features would be to encourage a lower level of capital adequacy of the banking system in general. If central banking is a fundamental source of capital inadequacy in the banking system, then no form of regulation mandating banks to maintain higher levels of capital will prove effective. Presumably, the institutional structure of central banking cannot be both the reason for and the solution of deterioration in bank capital adequacy.<sup>23</sup>

## 2. *Lower Quality and Lower Proportionate Liquidity*

Central banking also decreases the level and quality of liquidity in the banking system, further undermining its financial condition. One of the main purposes of a central banking framework is to centralize the liquid reserves of the banking system and place them under government control. This removes effective control over aggregate liquidity from private man-

<sup>22</sup> Benston, George J. *et al.*, *Perspectives on Safe and Sound Banking*, MIT Press, Cambridge, 1986, p. 231.

<sup>23</sup> Mayne, Lucille S., "Supervisory Influence on Bank Capital," *The Journal of Finance*, June 1972, pp. 637-651.

agers of the banking system and brings it under the control of the monopolist issuer of notes and reserves. Under such an arrangement we would expect lower liquidity levels than might otherwise exist under free banking.

The best demonstration of commercial banking liquidity is the unquestioned ability of banks to meet their obligations by converting demand deposits to base money on demand (or by converting on demand, deposits into private bank notes or demand deposits and notes into specie as under free banking) and to meet all other obligations as contracted. Whether this is achieved by selling bank assets or attracting substitute funds is immaterial to the conversion commitment. But the political motivations inherent in central banking (including the desire to maximize the capacity to inflate, to facilitate the sale of government securities, or to salvage insolvent or illiquid banks) tends to encourage lower system liquidity. In the early stages of central banking, government was delinquent and intermittent in enforcing demand deposit contracts and encouraged or explicitly sanctioned the suspension of convertibility of notes and deposits into specie.<sup>24</sup> Central banking also tends to lower required reserves once fractional banking is sanctioned. As reserve requirements are lowered, government expands the banking system's ability to inflate. More deposit creation can be supported on a smaller base of reserves. The central bank can more easily finance government deficits.

To maximize discretion and to maximize the capacity to inflate we would further expect central banking to lower the *quality* of reserves by removing specie from the banking system and replacing such market-determined reserves with a potentially unlimited supply of government securities and monopoly notes. The reserves held by the central bank itself in backing its own notes also tend to diminish in quality. Once fractional reserve banking and suspensions of deposit convertibility are sanctioned in the central banking framework, the new incentive structure leads bankers to significantly lower their reserve-to-deposit ratios still further. As in the case of declining capital adequacy, central bank regulations mandating minimum reserve ratios turn out to be superficial, ineffective and, as mentioned, continuously amended downward. Since it is central banking that imparts an inflationary bias and itself is a fundamental source of banking system illiquidity, there is little that can be done in the way of regulation to force bankers to be more liquid.

Central banking's role as lender of last resort, as the ultimate provider of liquidity to the banking system, ironically leads to chronic illiquidity in

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<sup>24</sup> Gorton, Gary, "Bank Suspension of Convertibility," *The Journal of Monetary Economics*, 1985.

the system. Instead of private managers in the banking system determining proper levels of aggregate liquidity according to prevailing market conditions, they surrender the ultimate power to create and manage such reserves to the central bank in return for the expectation that liquidity will be provided when needed. Elasticity of reserve management under free banking is substituted for inelasticity under central banking. Reserve requirements fail completely in making banks liquid because if managers comply with the minimum (say, 3 percent of deposits) and hold no excess reserves, no reserves are available to pay depositors. Moreover, flexibility is lost when the supply and demand for liquidity does not bear any direct relation to real underlying production and trade and when there exists a strong central bank bias for the expansion of reserves. Although private managers in the banking system retain the option of voluntarily raising relative liquidity levels, central banking is the sole and ultimate provider of aggregate liquidity and provides an incentive structure for the banking system to reduce its liquidity ratios to the lowest levels possible.

Deterioration in banking system liquidity also is a consequence of Federal or state deposit insurance schemes. By guaranteeing bank demand liabilities, central banking tends to promote the use of short-term obligations on bank balance sheets at the expense of longer-term obligations. This also encourages banks to make longer-term and less liquid loans, because deposit insurance seems to forestall the payment of short-term liabilities (demand deposits). With less emphasis on asset shiftability, and the promise of government guarantees for short-term liabilities, duration in the banking system balance sheet increases under central banking. This nonmarket, artificial balance sheet structure, coupled with central bank-induced fluctuations in interest rates, plainly fosters deterioration in bank asset quality and volatility in earnings.<sup>25</sup>

To compensate for the dangers inherent in banking system illiquidity, the central bank promises banks unlimited assistance in its capacity as lender of last resort and as the ultimate source of cash for the deposit insurance system. As a consequence of the central bank's political motivations to inflate and its inability to distinguish insolvency from illiquidity, however, we would expect an uneven performance of central banking functions, with the central bank sometimes providing too much, other times too little, liquidity.

Finally, we would expect geographic restrictions inherent in central banking regulations to impair banking system liquidity. Prohibitions against branching undermine banks' ability to diversify their core deposits, forc-

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<sup>25</sup> Fekete, Antal E., "Borrowing Short and Lending Long: Illiquidity and Credit Collapse," *The Committee for Monetary Research and Education*, June 1983.

ing them to rely on large deposits from remote and unreliable sources. Banking liquidity under central banking is thus transformed from the commitment to hold reserves for deposit conversion, to the dubious ability of banks to "borrow" funds in the market during crises.<sup>26</sup> The trend toward banks relying on purchased deposits represents not more sophisticated, but more desperate means of liquidity management.

### 3. *Poorer Asset Quality*

The central banking monopoly on fiat base money and reserves and the central bank's promotion of lower levels of reserves and hence a higher money multiplier leads to monetary growth rates that are both volatile and in excess of growth rates in real economic output. Expansionary monetary policy is only aimed at monetary and credit aggregates and promotes lending and deposit creation in the banking system above and beyond that required to finance real production and trade. The result is that banks finance a greater number of inefficient and uneconomic transactions than would otherwise be financed, and at longer maturities than those of shorter-term production cycles. The financing of uneconomic projects due to inflationary central bank finance lowers the quality of bank assets (loans). These "mistakes" are often uncovered only when, due to political pressures, the central bank inflation of the monetary base is lowered in periods of disinflation or reversed in deflations. Even the resort to more continual, persistent monetary inflation only masks, but does not alter the fundamental malinvestment undertaken by the banking system. We would expect periods of more volatile inflationary and disinflationary finance and a greater magnitude of uneconomic investment and declining bank asset quality under central banking than under free banking.

Monetary theory and practice have shown that a major consequence of money supply inflation by the central bank is a general rise in nominal interest rates across the entire maturity spectrum, because creditors demand compensation for being repaid in cheaper money. Rising interest rates lower the asset value of the longer-maturity assets that tend to accumulate on the banking balance sheet under central banking. The effect is most damaging when the assets also are held at fixed or slowly repriced interest rates. Banks try to offset the damage by pricing such assets at floating rates but the risk remains because interest rate volatility cannot always be accurately forecasted. Moreover, floating-rate loans

<sup>26</sup> Gruenwald, Alan E. and Alex J. Pollock, "Money Managers and Bank Liquidity," *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, May 1-3, 1985, pp. 552-562. This article demonstrates how suspicious corporate money managers have become of their deposits in banks, and hence, the tenuous nature of the "purchased liabilities" approach to bank liquidity management.

merely shift interest rate risk to borrowers, adding to the default risk of the asset. Banks cannot escape the detrimental effects of the volatile interest rate environment engendered by central banking. Volatile or rising interest rates inherent in central banking impair the debt-servicing capabilities of bank borrowers, further lowering bank asset quality. Sophisticated hedging techniques provide some relief but are ineffective when forecasts of political motivations, not economic fundamentals, are required; in any case continual hedging is much more costly than the resources required to manage risk under freer monetary arrangements.<sup>27</sup>

Geographic restrictions imposed by central banking further reduce bank asset quality as a result of prohibitions on prudent portfolio diversification. Anti-branching and anti-merger restrictions tie individual banks to particular geographic pockets of the economy that are dependent on the rise and fall of particular companies and industries. Periods of prosperity invite banks to build loan portfolios aggressively in narrow areas and periods of recession and bankruptcies lower the quality and value of those same portfolios.

Asset quality in the banking industry is most severely impaired by the system's own financial deterioration. As the creditworthiness and credit ratings of banks themselves fall, these institutions gradually lose their historic role and competitive advantage as credit intermediaries for other more creditworthy companies and industries. The cost of capital in the banking system rises as its credit ratings fall relative to other industries and the system is bypassed in the credit intermediation process. Commercial paper increasingly is issued directly to investors instead of being underwritten by banks. The banking system's lending spread (profitability) narrows or disappears. Banks respond by substituting financially sound borrowers with riskier, less creditworthy ones that can afford higher loan rates. This process has its origin in all those factors discussed above that lead to deterioration in the financial condition of the banking system under central banking. Moreover, the process is self-perpetuating; as lower quality (albeit higher yielding) assets are acquired, the banking system is further undermined by significant, periodic writeoffs of poorer quality assets.

#### *4. Unstable, Deficient Profitability*

Central banking is likely to promote lower and less stable profitability compared to banking in a market-oriented context. The central bank monopoly on note issue leads to inflation and the depreciation of asset

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<sup>27</sup> Friedman, Milton, "The Resource Cost of Irredeemable Paper Money," *Journal of Political Economy*, 1986, pp. 642-647.

values. Inflation also translates into higher and rising nominal interest rates; over long periods this erodes bank profitability because deposit insurance promotes a mismatched balance sheet and the marginal cost of funds (from deposits) is repriced at higher rates more quickly than are marginal revenues (from assets). The inevitable disinflation (or deflation) that follows central bank inflation helps create borrower defaults on bank loans, further undermining bank profits. The lender-of-last-resort function ensures that imprudent bank lending is pursued.

Central banking's manipulation of the money supply and interest rates undermines bank profitability by distorting the yield curve, that is, the relationship between short-term and long-term interest rates. All else equal, investors prefer a higher yield the longer the maturity date of the debt obligations they hold, so that the yield curve is upward sloping over the maturity spectrum. When this normal condition holds bank profits are not threatened, because bank loans have longer maturities (and higher interest rates for revenue) and bank deposits have shorter maturities (and lower interest rates for expenses). But when the central bank engages in a policy of inflation, it makes the yield curve steeper and artificially inflates bank profits by lowering short-term interest rates (due to excess liquidity and the open-market purchase of short-term government securities) and raising long-term interest rates (a premium is built into long rates too due to inflation expectations). Banks are given a false sense of prosperity and expand their operations excessively. Then the central bank inflates at a lower rate and flattens or even inverts the yield curve, creating massive losses for banks as their deposit costs rise and their loan revenues fall. This roller-coaster policy of central banking undermines both the stability and magnitude of bank profitability.

Anti-branching laws and the artificial segregation of the financial services industry (into commercial, investment and savings banks) also tend to perpetuate more numerous but smaller and more vulnerable banking institutions than a free market would warrant. This fosters excessive, artificial competition that depresses profit rates.

### *5. Imprudent Bank Management*

A very distinctive profile of bank managers also tends to develop under a central banking regime. Having lost to the central bank monopolist the ability or right to decide aggregate levels of money and credit in accordance with market-based production and trade, bank lenders and managers become less adept at judging the efficiency and legitimacy of real production and trade processes. Central banking supplies aggregate levels of money and credit in a volatile fashion, while the banking system is left to allocate the supply to particular borrowers, under increasingly

regulated conditions. The central banking promise of last resort lending and deposit insurance tends to reward risk-taking and imprudent bank management, which becomes increasingly careless in its lending and liquidity policies. In the interbank competition for market share, conservative banks are penalized for their caution; by refusing to accept assets at artificially low yields or excessively high risks, the market share of prudent banks declines. No correction takes place if riskier banks fail, for they are often rescued by the central bank and do not lose their ill-gotten market share. Bank management under central banking tends to concern itself primarily with “selling” the money for which their system is the transmission belt, with diminishing concern for its repayment.<sup>28</sup> The ability to judge creditworthiness, to counsel potential borrowers against speculation, to finance real economic production and trade, or to meet depositor demand for real money and transactions accounts often give way to irresponsible money-selling, the financing of riskier, more economically marginal ventures, and the emission of an increasingly depreciated money supply.

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<sup>28</sup> Chan, Yuk-Shee, Stuart I. Greenbaum, and Anjan V. Thakor, “The Deterioration of Bank Asset Quality,” *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, May 1-3, 1985, pp. 268-284. Central banking has lowered “banks’ willingness to undertake costly search for high-quality assets.”

## IV.

### THE HISTORICAL RECORD OF CENTRAL BANKING IN THE UNITED STATES: WEAKENING THE COMMERCIAL BANKING INDUSTRY

#### A. Historical Overview

**T**HE U.S. banking system formally has been under central bank management for more than 75 years, since the formation of the Federal Reserve System in 1913. However, we can locate the origins of the basic features of central banking both before and after that crucial date. The development of the U.S. central banking system has been evolutionary, not revolutionary.

Likewise, technically, for approximately 75 years *prior* to 1913 the United States experienced some (but not all) of the characteristics of free banking, especially from 1838 to 1863. However, certain basic features of free banking also can be identified as preceding and following that era. This is more fully developed in Chapter VI.

As we discussed in Chapter I, the task of testing empirically the thesis that central banking undermines the financial condition of the banking industry does not require that we locate eras characterized by pure systems of central banking or its opposite, free banking. Economic processes and the institutional structures surrounding them are evolutionary in character and in the United States there has been a chronological transition from a system of free banking (1838-1863) to national banking (1864-1912) and then to central banking (1913-present). The central banking era itself includes transition phases from lesser to purer forms of central bank management. However, guided by the characteristics that are basic to central and free banking and how those characteristics influence the soundness of the banking system, historical investigation of "unpure" eras can prove fruitful. We begin by characterizing the various periods in U.S. banking history as having greater or lesser forms of central banking and then examine the financial condition of the banking system in those periods.

#### B. Central Banking in Practice

A review of the empirical record of central banking's effect on commercial bank stability is best undertaken by dividing the 75-year period into three distinct phases. These divisions are based on the degree to which central banking characteristics dominated during such phases. Within the central banking era there is a chronological transition to purer forms of central banking. The first 20 years (1913-33) had vestiges of the less-centralized, pre-central banking era and the last 22 years (1968-present)

have characteristics that are almost exclusively those of pure central banking.

### *1. Phase I (1913-1933)*

#### a. Characteristics of the Period

The Federal Reserve Act introduced Federal Reserve notes as the monopoly paper money of the banking system and centralized all banks' reserves with the Federal Reserve and the U.S. Treasury. These features replaced the individual note issues of banks, effectively nationalized the clearinghouses of the banking system for purposes of check clearing, and removed a significant proportion of specie reserves (which the market had placed with the banking system) into the U.S. Treasury.

At the same time, however, Federal Reserve notes were not pure fiat money, otherwise fundamentally a central banking feature. The United States remained on a gold standard (which had been resumed in 1879) and the Federal Reserve Act mandated a gold reserve equivalent to 40 percent of Federal Reserve notes and 35 percent of member bank deposits. Gold backing and convertibility for notes and deposits represented vestiges of a freer banking era. But the role of gold differed under central banking because currency was issued by a monopolist bank and specie was transferred from the private banking system to the government. There was no longer a free market clearing of gold reserves to prevent overexpansion by individual banks. The Federal Reserve Act forced the banking system to rely solely on the monopoly provision of Federal Reserve notes and deposits at the Federal Reserve for liquidity. The goal of the Act had been to provide for an "elastic" currency and to forestall bank panics and system illiquidity but the centralizing of reserves at the Federal Reserve was an inducement to the banking system to carry lower reserves and to rely on a single undiversified source of system liquidity. The detrimental effects of such unilateral reliance on monopoly liquidity management would be felt fully by the banking system in the 1920's and 1930's.

The Federal Reserve Act also reduced bank reserve requirements by more than 50 percent from the levels that had been in place prior to 1913 under the National Bank Act. A further inducement to lower liquidity levels in the banking system, this also doubled the theoretical money multiplier, and hence the inflating capability of the Federal Reserve and the banking system.<sup>1</sup> In June 1917, 3 months after the United States entered World War I, Congress amended the Federal Reserve Act and

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<sup>1</sup> By "theoretical" money multiplier is meant the maximum deposit creation potential inherent in any reserve ratio requirement. The assumption is that under central banking banks will minimize excess reserves, the late 1930's being the only important exception to this general practice.

enhanced its inflating capacity by lowering reserve requirements still further, by forcing banks to turn their gold reserves over to the government, and by permitting Federal Reserve notes to be more easily issued against gold supplies coming into the United States from abroad.<sup>2</sup> According to one source at the time, “the machinery of central banking was exploited indirectly to create credit with which to finance the War.” Banks were not only encouraged to purchase newly issued government bonds, but to finance the purchase of bonds by individuals. It was “a process which increased the deposits of the banking system...and a policy encouraged and facilitated by the policies of the U.S. Treasury and the Federal Reserve.... There ensued a great increase in purchasing power that was unaccompanied by an equal increase in production and hence resulted in inflation.”<sup>3</sup>

The Federal Reserve functioned as lender of last resort in this early phase of central banking but unlike today, there were limitations on the central bank’s lending powers. Section 13 of the 1913 Act required that the central bank lend only against sound, short-term commercial paper or agricultural loans pledged by member banks and originally made to finance real production and trade. This provision was a vestige of the free banking era when prudent bankers operated by the “real-bills” doctrine. Following the prudence of the real-bills doctrine, Section 13 explicitly prohibited the Fed from lending to banks that presented speculative loans for cash. In total then, the Federal Reserve could back its note issue 40 percent by gold and 60 percent by real commercial paper. But the combination of central bank inflation and a prudent, free banking standard of lending and liquidity management would have serious repercussions in the 1930’s banking collapse. Although the real-bills doctrine was a prudent standard under free banking, it could not be managed effectively under central banking. Central bankers were many steps removed from the lending and production processes of the market, making accurate judgment difficult if not impossible. Moreover, the Fed’s own policies in the 1920’s promoted speculative credit expansion by the banks. When the speculative bubble burst at the end of the decade, Fed officials cited Section 13 and their obligation not to lend to member banks that presented speculative loans to the Fed’s discount window. A liquidity crunch and a banking collapse ensued in the 1930’s. Throughout the 1920’s bankers had

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<sup>2</sup> Anderson, Benjamin, *Economics and the Public Welfare: A Financial and Economic History of the U.S., 1914-1946*, Liberty Press, Indianapolis, 1949, pp. 5-7.

<sup>3</sup> Phillips, C. A., T. F. McManus and R. W. Nelson, *Banking and the Business Cycle: A Study of the Great Depression in the United States*, Macmillan, New York, 1937, p. 19. The Federal Reserve purposely inflated not only to finance U.S. bonds but also to sanction Great Britain’s wartime inflation and its unrealistic attempt to return to the gold standard in 1925 at an artificially high exchange rate (\$4.85 to the pound sterling).

come to rely on the lender of last resort as they observed unbridled liberality in the central bank's policy of reserve creation. They became far less cautious in their lending policies and no doubt expected the Fed's liberality to be extended to its discount window policy. When bankers discovered that it would not, it was too late, for their speculative loans already had been made and the central bank that helped create them would not help liquidate them.

The central banking feature of guaranteeing short-term bank liabilities (deposit insurance) was not in place in this early phase of central banking except in the informal sense of the Federal Reserve monopoly control of reserves and its promise to function as lender of last resort to the banking system. A crude form of "insuring" the viability of deposits near the end of this phase (1930-33) was the resort by government to bank "holidays," in which authorities simply prevented depositors from converting their deposits into currency by closing banks. This was an early example of central banking's tendency to promote the breaking of contracts and to obscure the distinction between sound and unsound banks. Yet the absence of any formal government deposit insurance fund was also a vestige of a freer banking era, when greater system stability made such a fund unnecessary.

Free branching for banks was illegal and highly restrained under this phase of central banking, preventing the prudent diversification of portfolios and deposits. Banks were largely confined by law to small pockets of the economy. During periods of growth banks lent too much to these areas and during recessions suffered greater loan losses than would have occurred with freer diversification.<sup>4</sup>

#### b. Banking System Financial Condition (1913-1933)

##### Capital Adequacy

The capital adequacy of the banking system deteriorated precipitously during the first 20-year phase of central banking, culminating in a banking collapse in the 1930's. The capital-to-assets ratio of the system declined dramatically from 17 percent in 1913 to 13.5 percent in 1929 at the time of the stock market crash. The capital ratio hit a low point of 11.3 percent in 1920. In fewer than 7 years under central banking management, the system's capital adequacy had declined by more than a third from its pre-central banking status. Central banking had a detrimental impact on the

<sup>4</sup> Blair, Roger D. and Arnold A. Heggstad, "Bank Portfolio Regulation and the Probability of Bank Failure," *Journal of Money, Credit and Banking*, February 1978, pp. 88-93. See also Cohen, Kalman J. and Samuel Reid, "Effects of Regulation, Branching and Mergers on Banking Structure and Performance," *Southern Economic Journal*, October 1967, pp. 231-249.

financial condition of the banking industry, at least so far as its capital adequacy is concerned. The deteriorated capital position does not appear to have been a result of any persistent weakness in the economy. In fact, the sharp recession of 1920-22 coincided with a *rising* capital ratio in the banking system and the post-recession boom characterized by unprecedented monetary inflation and a “roaring twenties” optimism witnessed a return to the trend of bank capital deterioration. Although the banking system increased its capital accounts by 2.2 times during this 20-year phase, assets were disproportionately increased by 2.8 times. Moreover, deposits increased during the same period by 2.9 times, from \$20 billion to \$58 billion. In accordance with the theory of central banking we outlined earlier, the expansion of the banking system’s deposits and assets far outpaced the growth in real production during the period. Between 1913 and 1929 real gross private domestic product increased by only 30.8 percent, less than a quarter of the growth rate of bank deposits.

Lower capital ratios did not reflect improvement in the way banks were managed. The theory that central banking has an inherent bias toward enhanced monetary inflating capacity, however, is confirmed in this period. A higher money multiplier in the banking system was the direct result of the lowering of reserve requirements under the Federal Reserve Act and contributed significantly to the overexpansion of bank balance sheets. Prior to the formation of the Federal Reserve, banks held their own reserves and the average minimum ratio was 21.1 percent. The Federal Reserve Act of 1913 slashed those reserve ratios by 45 percent to an average minimum of 11.6 percent and as amended in June 1917 (as mentioned, to accommodate World War I financing) the Act decreased required reserves further to an average minimum of 10 percent. These changes alone increased the theoretical money multiplier to 10 times under central banking from under 5 times prior to 1913.<sup>5</sup> Central banking substantially increased the inflating capacity of the fractional reserve banking system.

Not only the lowering of reserves but also their centralization with the Federal Reserve gave further impetus to money and credit inflation since the Federal Reserve itself was only required to keep specie reserves of 40 percent against its notes and 35 percent against member deposits. Central banking introduced a double leveraging of specie reserves in the system; that is, the Federal Reserve issued its own notes far in excess of its specie and in turn banks were encouraged to issue a greater multiple of deposits against Federal Reserve notes. The above ratios in Table 1 show that this

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<sup>5</sup> Phillips, C. A., T. F. McManus and R. W. Nelson, *Banking and the Business Cycle: A Study of the Great Depression in the United States*, Macmillan, New York, 1937, pp. 25-27.

Table 1  
**CAPITAL ADEQUACY, 1913-1929**  
(Dollars in Millions)

Year	Capital	Assets	Ratio	Year	Capital	Assets	Ratio
1913	\$4,443	\$26,103	17.0%	1922	\$6,599	\$50,368	13.1%
1914	4,503	27,349	16.5	1923	6,818	54,144	12.6
1915	4,643	28,363	16.4	1924	7,073	57,420	12.4
1916	4,718	32,697	14.4	1925	7,384	62,232	11.9
1917	4,988	37,540	13.3	1926	7,841	65,079	12.0
1918	5,133	41,097	12.4	1927	8,301	67,893	12.2
1919	5,409	47,603	11.4	1928	8,954	71,121	12.6
1920	6,019	53,094	11.3	1929	9,750	72,315	13.5
1921	6,385	49,633	12.9				

Source: *Historical Statistics of the United States Through 1970*, Series X580-587.

potential for deposit inflation was being exploited to the detriment of the banking system during the early phase of central banking.

### Bank Failures

One of the more definitive signals of capital inadequacy in the banking system is the actual number of individual bank insolvencies or failures. A single bank might have survived the 33 percent capital ratio decline actually suffered by the banking system from 1913 to 1920, but this decline was only an average for all banks. Some individual bank ratios declined more, some less. Statistical records demonstrate clearly that the first 20 years of central banking exhibited the most extensive number of bank failures in all of U.S. banking history. Depositors lost more money in this early phase of central banking (1913-1933) than earlier depositors had lost in the entire 75-year free banking period (1838-1913).

Bank failures reached record proportions even before the Great Depression of 1929-33 and the collapse of the banking system in 1930. From 1913-1922, bank failures averaged 166 per year and the failure rate increased to 692 per year from 1923-1929 despite that period's economic boom. As weaker banks exited the system through bankruptcy the industry's capital ratio reversed its decline and began rising, from 11.9 percent in 1925 to 13.5 percent in 1929. But this improvement in capital adequacy was more than anything influenced by the free banking belief, shared by Secretary of the Treasury Andrew Mellon and others, that unsound credits should be liquidated instead of extended indefinitely. Unlike future phases of central banking this phase was not characterized by any deliberate policy of perpetually sustaining unsound credits or bailing out failed banks. The extent of the banking system collapse from 1930-1933 has already been extensively examined in the economic literature but that the magnitude of the disaster has its origins in a central banking system is not

widely recognized. But some economists at the time showed how central banking was inherently inflationary and imposed detrimental distortions on an otherwise stable private banking system.<sup>6</sup> By monopolizing money, centralizing the reserves of the banking system, and then manipulating those reserves without restriction and for political purposes, central banking removes all checks against overexpansion of money and credit, permitting banks to inflate uniformly. As we will see below, deflation and illiquidity then follow when the monetary inflation is suspended.

A total of 9,106 banks failed in this 4-year period, representing 35.6 percent of the banks that had been in existence in 1929. With the liquidation of unsound credits and unsound banks, the capital ratio of the banking system improved over the period, despite the absolute decline in capital levels.

### Asset Quality

Recognizing the interrelatedness of measures, we might ask whether deteriorating capital adequacy was somehow justified because of higher-quality asset portfolios. Yet asset quality in the banking system also deteriorated during this early phase of central banking. Having centralized reserves and lowered reserve requirements, the Federal Reserve encouraged the banking system to expand its balance sheet faster than the growth of real production and faster than the growth of its capital base. The first inflation of credit was conducted to finance World War I and ended in a steep recession in 1920-22. After that experience the central bank engaged in a longer period of money inflation. The effect of inflation on bank asset quality was as predicted. Bank loans extended during the easy credit and artificial boom of the 1920's, especially in real estate and farming, grew unsound in the later part of the decade when money growth slowed.

According to one interpretation of the banking collapse, both real and monetary factors forced the closing of banks, many of which already were weakened by regulatory constraints and regional economic difficulties. "The strict limitations on branching produced an industry of predominantly single-office banks which were particularly susceptible to economic fluctuations in contrast to the branching banks of Canada."<sup>7</sup>

One feature of central banking, the limitation on branching and portfolio choices, accelerated the collapse of the system. Prudent diversification was made illegal. In Canada, as a contrast to the United States, the banking system consisted of ten banks with numerous branches. By law, the United

<sup>6</sup> *Ibid.*, p. 12.

<sup>7</sup> White, Eugene Nelson, "A Reinterpretation of the Banking Crisis of 1930," *Journal of Economic History*, March 1984, pp. 119-138. White rejects Friedman and Schwartz's view that banks in this period were not harmed by asset deterioration.

Table 2  
**CAPITAL ADEQUACY, 1930-1933**  
(Dollars in Millions)

Year	Capital	Assets	Ratio
1930	\$10,372	\$74,290	14.0%
1931	9,872	70,070	14.1
1932	8,525	57,295	14.9
1933	7,388	51,359	14.4

Source: *Historical Statistics of the United States through 1970, Series X580-587.*

States had over 30,000 banks each with many single offices and few branches. Bank failure rates were minimal in Canada in the 1930's although it too experienced real economic shocks.

The significant volatility and deterioration in asset quality under central banking became evident as the banking system collapsed. But instead of citing unlimited central bank reserve expansion in promoting excessive and unsound credit, economists and central bank officials denounced the deflation that was its necessary consequence. In the future, central bank policy would be biased in favor of prolonged and persistent inflation, a policy that would force the banking system to suffer a long-term secular decline in asset quality and capital adequacy.

### Liquidity

The growing liquidation of unsound credits accelerated depositors' demand for liquidity from the banking system at the same time that the banking system under central bank management had lost direct management of its reserves. Depositors' demands for a higher ratio of currency to deposits meant a run on the banking system, not just on particular banks.<sup>8</sup> People doubted the very strength of the banking system and because reserves were centralized at the Fed, banks could not easily distinguish their financial strength from competitors. This experience is consistent with the theory that central banking primarily undermines the banking system. Illiquidity was not merely an allocative inefficiency but an aggregate one, made possible by central banking.

There is little evidence to suggest that the resort to lower capital adequacy and lower asset quality was purposely undertaken by bank managers and offset by higher levels of liquidity. For liquidity in the banking system, as measured by total cash reserves-to-deposits, *also* declined, from nearly 23 percent at the inception of central banking in 1913, to 15.6 percent in 1929. The practice of managing bank liquidity in the opening

<sup>8</sup> Friedman, Milton and Anna J. Schwartz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, Princeton, 1963.

phase of central banking changed from the decentralized management of reserves adequate for currency and deposit conversion to the notion that the Federal Reserve would provide the ultimate reserve if needed and that the banking system need only concentrate on the relative liquidity of its other assets such as loans and securities. Liquidity ratios fell due to the incentives of central banking, not to any greater confidence by bank managers that they could meet depositor withdrawals of limited specie. But as unsound banks were liquidated in the period 1929-33, liquidity ratios in the banking system increased despite a fall in absolute cash balances. This is similar to the improvement in capital adequacy seen during the liquidation phase. As unsound banks dropped from the system, the survivors contributed to an improved aggregate balance sheet. Although the contraction brought with it severe human costs in terms of unemployment and dislocation, it also expunged unsound banking practices and laid a stronger foundation for economic expansion in the 1940's and 1950's. Thereafter, central bankers would continue to undermine the banking system by excessive reserve expansion, but it would never again permit a contraction to restore the system to financial health.

### Profitability

Bank managers also did not purposely lower capital and liquidity ratios or asset quality out of any greater confidence in the level or consistency of profits. In fact, the banking system experienced quite volatile profit rates during the first 2 decades of central banking. Profit rates rose from 1913 to 1920 before falling sharply in the recession of 1921-22. That recession was widely understood to have been the result of government's escalation of war financing and monetary inflation. Bank profit rates remained flat in the middle 1920's before collapsing under the strain of massive loan losses in the early 1930's. Even in the late 1930's, profit rates barely reached half the level of 1919 (0.6 percent vs. 1.2 percent). The banking industry had never witnessed such profit volatility in its freer, pre-central banking history. Even when profits were made in this phase of central banking they were never sufficient to internally supplement the system's capital base or to attract external capital. That is, the capital base of the

Table 3  
**LOAN LOSSES AS A PERCENTAGE OF TOTAL LOANS, 1919-1934**

<i>Loss</i>		<i>Loss</i>		<i>Loss</i>		<i>Loss</i>	
<i>Year</i>	<i>Ratio %</i>						
1919	0.26	1923	0.77	1927	0.54	1931	1.36
1920	0.34	1924	0.69	1928	0.49	1932	2.41
1921	0.91	1925	0.62	1929	0.54	1933	3.30
1922	0.98	1926	0.56	1930	0.78	1934	3.61

Source: *Banking and Monetary Statistics, 1919-41*, Federal Reserve Board.

Table 4  
**LIQUIDITY, 1913-1933**  
(Dollars in Millions)

Year	Cash	Deposits	Ratio	Year	Cash	Deposits	Ratio
1913	\$4,853	\$21,245	22.8%	1924	\$9,034	\$48,690	18.6%
1914	5,125	22,387	22.9	1925	9,903	52,949	18.7
1915	5,300	23,226	22.8	1926	9,806	51,797	18.9
1916	6,385	37,414	17.1	1927	10,156	57,350	17.7
1917	7,250	31,515	23.0	1928	9,454	58,787	16.1
1918	6,837	33,742	20.3	1929	9,222	58,918	15.6
1919	8,286	38,659	21.4	1930	11,201	61,014	18.4
1920	8,489	42,526	20.0	1931	10,405	57,823	18.0
1921	6,980	39,638	17.6	1932	7,407	46,218	16.0
1922	7,830	41,952	18.7	1933	7,793	42,411	18.4
1923	7,595	45,096	16.8				

Source: *Historical Statistics of the United States through 1970*, Series X580.

banking system could not keep pace with the inflated asset and deposit growth resulting from central banking management. This result is consistent with our theory of central banking's effect on system profitability and capital adequacy.

### Bank Management

During this first phase of central banking bank managers began to develop a profile unlike that of their counterparts only a few decades before, including a greater willingness to underwrite speculative and questionable credits. The best known examples of excessive and unsound credit expansion are the loans against securities on stock exchanges and the artificial inflation of land and agricultural loans. As we shall see in Chapter VI, the free banking era had financed the rise of the Industrial Revolution. But in the 1920's banks expanded into consumer lending. Loans were tied not to production but to consumption, a phenomenon anathema to free bankers. "Consumer credit was not absent from the nineteenth-century economy but it was extended almost exclusively by sellers of goods. Bank loans helped sellers to finance such credit extensions, but the scope for consumer borrowing of any duration was quite limited. By the end of the 1920's some bankers had taken the plunge of lending direct to consumers." In 1900 personal loans and mortgages at commercial banks represented only 6 percent of total loans, but this share grew to 20 percent by 1939.<sup>9</sup>

Also, for the first time, in the 1920's banks began lending to Latin American governments, even selling those governments' securities to

<sup>9</sup> Trescott, Paul B., *Financing American Enterprise: The Story of Commercial Banking*, Harper & Row, New York, 1963, p. 177.

bank customers. Although these countries had far greater promise than they did in the 1970's, country lending still involved a level of risk-taking unique to central banking systems. In the free banking era the only securities underwritten were the stocks and bonds of productive enterprises engaged in the Industrial Revolution. There was also a significant rise in the financing of U.S. stock market speculation in the 1920's with little consideration for real underlying values. Excessive lending to the real estate and agricultural sectors also was widespread and disastrous. In 1916 the Federal Government established its first farm credit institutions, the Federal Land Banks. The 1920-21 recession had begun with the collapse of farm product prices and land values. According to one banking historian, "numerous examiner reports cited bank failures as due to 'generosity to borrowers'...with insufficient attention paid to discipline, the result of which is detrimental to both borrowers and lenders in the long run. The conventional bank insistence that borrowers limit their debts in relation to their ownership capital, maintain liquidity, and make systematic reduction of debts, imposes standards which, however unpopular they may be, operate to protect borrowers as well as lenders."<sup>10</sup> But under central banking, bank management was no longer "conventional." The free banking era had witnessed the financing of agricultural production and distribution, but under central banking more credit was extended by mortgage, geared to land values. The more imprudent loans extended under central banking defaulted in the Great Depression, causing widespread bank failures.

If we observe the last 20 years of central banking, we see that bankers continued to operate under central banking incentives to lend indiscriminately to poor countries, stock market speculations, real estate and farming. In the decades after the economic contraction of the 1930's, the real-bills doctrine was continually denounced in theory by economists and gradually abandoned in practice by bankers.

<sup>10</sup> *Ibid.*, p. 111.

Table 5  
PROFITABILITY, 1919-1938

Year	ROA (%)						
1919	1.2	1924	1.0	1929	1.2	1934	-0.6
1920	1.2	1925	1.1	1930	0.7	1935	0.5
1921	0.9	1926	1.1	1931	-	1936	1.0
1922	1.1	1927	1.1	1932	-0.7	1937	0.7
1923	1.0	1928	1.1	1933	-1.1	1938	0.6

Source: *Banking and Monetary Statistics, 1919-41*, Federal Reserve Board, p. 264.

The excessive expansion of aggregate supplies of bank reserve credit by central bankers in the 1920's made good and bad credit risks less distinguishable. Imprudent bankers and bad loans had existed in the era prior to central banking, but not on so wide a scale. What had been an exception became the rule. The conservative, prudent banker of the free banking era increasingly gave way to the incautious and free-wheeling financiers of the central banking era.

### c. The Lessons of Phase I of Central Banking

Deterioration in the financial condition of the banking system from 1923 to 1929 and its collapse from 1930-33 might well have been avoided had the banking system retained full decentralized control over its reserves and had it been fully and solely responsible for the proportion of those reserves to deposits and private bank notes. The banking system would have continued to employ reserves of specie, or the notes and deposits of other sound, specie-based banks. Such an arrangement, a foundation of indestructible commodity money as had existed prior to 1913, would have made impossible both the substantial nominal expansion of bank balance sheets in the 1920's and the inevitable, consequent wholesale destruction of money and credit supply that occurred in the 1930's. Higher reserve ratios also would have been likely, as had been in place prior to 1913, preventing wide swings in both the expansion and contraction of money and credit.

Under decentralized banking individual banks that resorted to the irresponsible inflation of bank notes, deposits and loans beyond prudent levels would have suffered the consequences singularly, but would not have engendered system-wide deterioration, system-wide mistakes, and system-wide collapse. Free branching and portfolio diversification would have minimized the number of individual bank failures. Branches, not banks, would have been closed.

Central banking had been adopted in the United States on the premise that a free banking system was inherently unstable and chaotic. It was believed that central banking represented a rational, scientific management of the money and banking system by government officials. This had been the conclusion of the voluminous publications of the National Monetary Commission, establishment economists, and advocates of central banking prior to forming the Federal Reserve in 1913. Yet in less than 2 decades after instituting central banking, the banking system suffered unparalleled financial deterioration and collapse, depositors lost millions, and unemployment soared to a quarter of the population. In practice, central banking policy proved to be arbitrary, political, and irrational — the opposite of what the theorists had advised.

Yet the advocates of central banking did not question the underlying premises of the system or fully appreciate the perverse incentives it offered to the private banking system. They concluded from the contraction of the 1930's that the Federal Reserve had insufficient power and discretion. Both were expanded considerably in subsequent reform legislation. Three main assumptions guided the reforms, all of which meant the phasing out of free banking elements. First, because of its allegedly limited supply and the requirement that the supply of Federal Reserve notes be brought back in line with required gold reserve ratios, the use of gold as money and as a reserve for convertible currency was blamed for the 1930's contraction. In fact, the supply of gold is never "limited" as long as it is properly priced in relation to the supply of money it backs. It was the Fed's excessive expansion of money and credit that made money and credit contraction necessary. An objective check against monetary inflating, not the deliberate policy of monetary inflating itself, was abandoned.

Second, the real-bills doctrine of lending on short-term and productive credit was dismissed and the Fed began providing unrestricted supplies of bank reserves without reference to the source of bank loans, whether they were for production, speculation, or consumption. The Fed began more active "open market" operations, buying and selling government securities with banks, a form of consumptive financing on the widest scale. Finally, the freedom of bankers to make management and lending decisions was increasingly circumscribed and regulated by government. Reformers observed that imprudent bankers brought about banking instability and failures but ignored the fact that such bankers could best flourish under central banking. By expanding central banking but regulating the decisions of all bankers, regulatory reforms would only blur the distinction between good and bad bankers. Not only would poor banking practices not diminish, they would increase over subsequent decades with the growth of central banking. Bankers who had learned the painful lessons of operating under a central banking system, who had been prudent and recognized the importance of the gold standard and sound lending practices, could not resort to free banking. The next phase of central banking encompassed still purer elements of a central banking system.

## *2. Phase II (1934-1968)*

### *a. Characteristics of the Period*

Two main features inherent in any pure central banking framework were added in this 35-year phase of central banking, largely in response to the collapse of the banking system. Instead of a solution favoring freer banking, regulators expanded the scope of the problem (central banking). In the Glass-Steagall Act of 1932 not only were banks prohibited from the lucrative securities business, but the Federal Reserve was given the power

to back its notes with government securities. Pure fiat money was then fully implemented by the suspension of the convertibility of Federal Reserve notes (or member bank deposits) into specie. This was the aim of the Gold Reserve Act of 1934. The “notes” of the Federal Reserve were no longer a promise to pay anything to the holder. Neither did the notes become “money” by the fact that their production was undertaken without limit by a political agency. Specie was taken into the Treasury and the Federal Reserve was issued gold certificates. In the opening phase of central banking, specie was transferred by the banks (on behalf of its depositors) to the government in return for its notes, its deposits and its promise to redeem. But in Phase II, the government effectively confiscated and nationalized these reserves, removing any remnant of objective, decentralized discipline on money and credit creation.

In just the 2 decades since its inception in the United States, central banking had completely removed gold from the money and banking system. Analyzing this evolution some 20 years ago, current Federal Reserve Chairman Alan Greenspan observed that “the abandonment of the gold standard made it possible for the welfare state to use the banking system as a means to the unlimited expansion of credit. Statists created paper reserves in the form of government bonds that — through a complex series of steps — the banks accept in place of tangible assets and treat as if they were an actual deposit, *i.e.*, as an equivalent of what was formerly a deposit of gold.”<sup>11</sup> Subjective, politically based fiat money was thereby forced into the market in the place of objective, market-based gold money.

Voluntary resort by banks to sound reserve values (specie) was made impossible and ownership of specie was made illegal. Although the “gold cover” for Federal Reserve notes and member deposits was retained, it was done so in name only. The lack of any specie-convertibility feature for Federal Reserve note holders created an unlimited potential for central bank money and credit inflation. For the banking system, this meant an unlimited potential for its balance sheet to be expanded beyond economic necessity, for money is represented largely by deposits, and credit by loans. The history of the lowering and then the elimination of the “cover” is recounted in Table 6.

It took only 2 decades for Federal Reserve policies to bring about nearly 10,000 bankruptcies in the banking system and then to go bankrupt itself by defaulting on its notes (suspending gold redeemability of the Federal Reserve dollar) for if its notes were a “promise” to pay anything, they were a promise to pay specie. Convertibility was only available to other

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<sup>11</sup> “Gold and Economic Freedom,” in *Capitalism: The Unknown Ideal*, New American Library, 1967, p. 94.

Table 6  
THE GOLD COVER, 1913-1968

Period	Federal Reserve Notes	Deposits
1913-1934	40%	35%
1934-1945	40	35
1945-1965	25	25
1965-1968	25	0
1968	0	0

Source: *Documentary History of Banking and Currency in the United States, Volumes III and IV*, Samuelson and Kroos, 1983.

central banks, which in turn pyramided their own fiat money supplies on the U.S. dollar itself in the Bretton Woods scheme concocted in 1944. The Federal Reserve defaulted on this obligation in 1971 after a prolonged phase of inflation. Whereas in 1913 a structure was put in place to promote double leverage in the U.S. banking system, in 1944 a structure was put in place to double leverage international central banking. A gold standard managed by a private banking system prior to 1913 was replaced by a gold standard managed by a central bank from 1913-1934 that was then replaced by a gold exchange standard managed by a world of central banks. This chain of events confirms the impression that central banking creates a bias for imprudence, for money and credit inflation and as a consequence, an unstable banking system. The example was set for all private banks to see: the central bank, the overseer of the entire banking system, managed imprudently and failed to meet its debts, but did not go out of existence. This is exactly how much of the private banking system has been managed ever since under the central banking regime.

In 1934, along with the nationalization and removal of sound, indestructible specie reserves as the basis of the banking system, government deposit "insurance" was instituted through the Federal Deposit Insurance Corporation. Legal ceilings on deposit interest rates also were instituted. This had the unprecedented effect of providing a government guarantee of most of the short-term liabilities (and their cost) of the entire banking industry, a benefit provided to no other industry in the market. Coverage was initially only for deposits of \$2,500 but was successively increased to \$5,000 (1935-49), \$10,000 (1950-65), \$15,000 (1966-68), \$20,000 (1969-73), \$40,000 (1974-79), and \$100,000 (1980-present),<sup>12</sup> each time providing enhanced "guarantees" to the banking system's depositors. Since 1971 these increases have had no relation to the deposit level typically maintained by the "small depositor" the insurance alleges to protect.<sup>13</sup> But it

<sup>12</sup> *FDIC Annual Report*, 1986, p. 64.

<sup>13</sup> Kareken, John H., "The First Step in Bank Deregulation: What About the FDIC?," *American Economic Review*, May 1983, pp. 198-203. Kareken shows that the aim is simply to prevent bank runs.

also gave further incentive for the substitution of these liabilities for capital by the banking system. The prohibition against paying interest on demand deposits in 1935 not only led to overreliance on that form of financing but eventually brought about a massive disintermediation of depositors' funds. Instead of questioning the prudence of lower reserve ratios and the dangers of volatile deposit expansion and contraction inherent in higher money multipliers, legislators in the 1930's simply created the FDIC in order to have deposits "guaranteed." No other industry before or since has enjoyed the privilege of having its accounts payable guaranteed by the government. Instead of allowing free branching and portfolio diversification and preventing the dislocations of the 1920's and 1930's, even greater restrictions were placed on bank managers.

Long before Federal deposit insurance was imposed, there was ample evidence that it had a damaging effect on the banking system because state deposit insurance systems had exhibited disastrous consequences. When such a system was employed in Texas in the 1920's, it was said that "the plan made too many banks and too few bankers. All kinds of incapable people tried to start a bank under the protection of the fund. The system gave a false sense of security — people looked to the fund for protection and paid no attention to the soundness of the banks themselves, nor to the ability of the managers. Prosecution of bank wreckers and crooks was made impossible. The depositors got their money from the fund, so they were not particularly interested in prosecuting the unscrupulous or incompetent men who caused the banks to fail. Such an unsound system of banking weakened the financial structure of the entire state."<sup>14</sup> Not only was reckless banking encouraged by government deposit guarantees, but prudent bankers were penalized in the process. This perverse aspect had been recognized even earlier, for at the turn of the century the president of the First National Bank of Chicago objected to deposit insurance when he asked, "Is there anything in the relations existing between banks and their customers to justify the proposition that in the banking business the good should be taxed for the bad; ability taxed to pay for incompetency; honesty taxed to pay for dishonesty; experience and training taxed to pay for errors of inexperience and lack of training; and knowledge taxed to pay for the mistakes of ignorance?"<sup>15</sup> Federal deposit insurance was instituted in 1934 under political pressure and expediency, despite these prescient warnings and frequent references to the most basic rudiments of economics.

To meet growing deterioration in the banking system, in the 1950's

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<sup>14</sup> Harr, Luther and W. Carlton Harris, *Banking Theory and Practice*, McGraw Hill, New York, 1936, p. 141.

<sup>15</sup> James B. Forgan in a 1908 speech, quoted in Kurt Schuler's "Deposit Insurance Déjà Vu," *The Freeman*, July 1989.

banks began forming holding company structures in this phase of central banking to diversify into other fields. But Congress countered with the Bank Holding Company Act of 1956, put a strict limit on this process, and circumscribed allowable bank activities. The Act also formalized the central banking policy of maintaining an artificial separation between banking and commerce. This would have a number of bad effects on bank stability. First, capital adequacy could not be improved by the injection of new capital into the banking system from nonbanking industries. Second, asset portfolios could not be diversified nor asset quality thereby improved, as banks were prohibited from making equity investments in other industries. Third, profitability could not be smoothed or enhanced with equity investment or fee income as banks were limited primarily to earning only interest income on debt instruments. Finally, bank managers responsible for poor financial results would be protected by regulatory barriers to entry and the prohibition against any real market for corporate control in banking. Despite their very poor record of management, central bank officials and bank regulators became responsible for deciding who could own banks and how they would be managed. By this method, central banking would not only promote imprudent banking, it would positively institutionalize it.

The other main features of central banking that have already been discussed were expanded upon in this period, including the central bank monopoly on note issue and the lender-of-last-resort function. As mentioned, both were imprudently liberalized, the first by specie suspension and the removal of the gold cover and then by the willingness of the central bank to discount more than sound short-term commercial paper. Banks were now able to offer government securities or lower quality loans for sale to the Federal Reserve. The use of "open-market operations" accelerated. The Fed became more active in buying and selling government securities through the banking system, thereby manipulating money and credit more extensively. This could only serve to make bankers less cautious about the assets they took onto their books. In the event of bank illiquidity, the central bank agreed as a matter of policy to pay for bad assets with printed fiat notes or a simple deposit credit.<sup>16</sup> The principle that banks primarily finance short-term trade credit was abandoned. Although some government securities would be short term, they could easily be issued in longer maturities, and no matter what the maturity they did not originate in real production and trade. The Secretary of the Treasury joined the Fed's Board and there was an explicit "accord" between the two agencies in

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<sup>16</sup> The significance of this incentive has been highlighted in central banking bailouts of failed banks in the 1980's, in which billions of dollars of bad loans are acquired by regulators and the banks that originate the loans often remain in business.

which the Fed promised to help the Treasury issue securities by buying them directly or promising to pump reserves into the banking system so that banks would purchase them. This arrangement was exploited most during and after the years of World War II when government financing needs were not fully met with taxes. This evolution in policy conforms to the theory of central banking, especially its tendency to promote excessive, often unsound money and credit through the banking system for purposes of financing a burgeoning government.

#### b. Banking System Financial Condition (1934-1968)

##### Capital Adequacy

As we might expect, the capital ratio of the banking system deteriorated further and more precipitously under Phase II, because reformers adopted an even purer form of central banking than had existed earlier. In the first 2 decades comprising Phase I of central banking capital adequacy had fallen by more than a *third*. In the first 10 years alone of Phase II the capital adequacy of the banking system declined again, this time by more than *half*, from 14.1 percent in 1934 to 6.2 percent in 1945. Over the full period, capital adequacy fell by 43.2 percent to 8 percent in 1968. This phase of central banking was not even marred in any significant way by recessions in real economic output or incomes, although significant production of nonconsumer goods during World War II did depress living standards. Once again, as we would expect under central banking, the balance sheet of the banking system was expanding faster than its capital base, resulting in declining capital adequacy. Moreover, it was happening most rapidly precisely when the financing of a growing government was accelerated. Deterioration was most pronounced during World War II when the Federal Reserve accommodated the government's financing requirements by inflating money and credit.

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Table 7  
CAPITAL ADEQUACY, 1934-1968  
(Dollars in Millions)

Year	Capital	Assets	Ratio
1934	\$ 7,865	\$ 55,915	14.1%
1939	8,236	73,193	11.3
1945	10,126	162,169	6.2
1950	13,577	179,165	7.6
1955	17,663	229,626	7.7
1960	23,857	282,872	8.4
1965	34,124	412,493	8.3
1968	38,351	479,590	8.0

Source: *Historical Statistics of the United States Through 1970*, Series X580-87.

Table 8  
**LIQUIDITY, 1934-1968**  
(Dollars in Millions)

Year	Cash	Deposits	Ratio	Year	Cash	Deposits	Ratio
1934	\$10,158	\$ 47,175	21.5%	1952	\$41,668	\$184,147	22.6%
1937	15,520	59,485	26.1	1955	42,013	208,845	20.1
1940	25,603	70,854	36.1	1958	44,628	238,369	18.7
1943	26,696	107,297	24.9	1961	46,541	263,316	17.7
1946	33,163	159,293	20.8	1964	54,247	333,073	16.3
1949	34,967	156,448	22.3	1967	66,397	420,748	15.8

Source: *Historical Statistics of the United States through 1970, Series X580.*

In the late 1950's regulators began to recognize this negative secular trend in capital adequacy. They required banks to file "ABC" forms (for "Analysis of Bank Capital"), and began issuing "guidelines" for minimum capital ratios. But the basic features of central banking that gave rise to the deterioration were never identified or altered. Consequently, the long-term trend in capital adequacy would continue to deteriorate over the next 30 years. Since the guidelines, the rules, the relaxation of guidelines and the passage of regulation all failed to question central banking, they all failed to stem the tide of deterioration. In 1962 the Comptroller of the Currency proposed a solution to bank capital inadequacy that "permitted" banks to include certain types of long-term debt as "equity." This merely sanctioned the growing deterioration in capital adequacy without reversing it. In 1968 more formal regulations were put in place but with long-term "leniency" periods and exceptions for banks that fail to meet minimum capital ratios. The persistence of regulators' inability to reverse the trend toward capital inadequacy seems to confirm that capital adequacy in banking deteriorates for fundamental, institutional reasons that no amount of regulation can effectively counter. Central bankers and regulators may pose as the prudent protectors of system capital adequacy but in fact it is central banking that brings about its deterioration.

### Bank Failures

Prior to the acceleration of the monetary inflation during World War II, bank failures continued from 1934 to 1942 albeit at lower rates than prior to deposit insurance. Still, 487 banks failed in this period, representing over \$500 million in total deposits.<sup>17</sup> With the institution of Federal deposit insurance, sound banks that could pay premiums began funding the insurance system for the benefit of depositors of unsound banks. The deposit insurance system showed how central banking was biased against sound banks. In the postwar period through 1968 fewer than ten banks

<sup>17</sup> *Historical Statistics of the United States through 1970, Series X741, U.S. Department of Commerce, Washington, D.C., 1975.*

failed each year. But by itself the bank failure rate can be a deceptive measure of the health of the system. Although we can see why widespread bank failures, as had occurred during the Great Depression, necessarily reflected trouble, the absence of bank failures does not necessarily suggest that all is well. This is especially the case under central banking, where the government has the power to print money, bail out bad banks, and liquify the system at will. For some banking historians, low failure rates in the 1950's and 1960's seemed to mask the significant system-wide deterioration in bank capital adequacy.

### Liquidity

The banking system worked to restore liquidity ratios after the Great Depression and the disastrous consequences of relying on the central bank as guarantor of system liquidity. Liquidity ratios increased dramatically and doubled from 18.4 percent in 1933 to a peak of 36.1 percent in 1940, just prior to the monetary inflation initiated for war financing purposes. Bankers had become so cautious in the late 1930's, and so suspicious of central bank policies, that liquidity ratios were far in excess of the minimum ratios required by the Federal Reserve. Although excess liquidity also reflected a depressed economy and weak loan demand, the banking system had a new-found caution and a commitment to manage its own reserves prudently, as it had done prior to the imposition of central banking.

Not until the significant expansion of reserves by the Federal Reserve to accommodate Treasury financing of World War II from 1941 to 1946 did bank liquidity ratios decline once again to 20.8 percent. As mentioned, the Fed's policy of financing the government reflects the fact that central banking practice often seems motivated by political, not economic considerations and when it is, the banking system suffers accordingly. Conversely, when political considerations are less immediate, the deteriorating trend is ameliorated. As expected, liquidity ratios did not deteriorate

Table 9  
**TIME DEPOSIT RATIOS, 1944-1968**  
 (Dollars in Millions)

Year	Time Deposits	Total Deposits	Ratio
1944	\$ 21,269	\$116,235	18.3%
1948	35,795	138,162	26.0
1952	39,333	162,365	24.2
1956	51,446	187,299	27.5
1960	68,408	214,425	31.9
1964	120,153	286,133	42.0
1968	191,889	397,275	48.0

Source: *Historical Statistics of the United States Through 1970*, Series X602-06.

during the relative monetary conservatism of the central bank in the 1950's, a conservatism marked by the Fed-Treasury Accord of 1951 when the central bank withdrew its commitment to "monetize" Treasury securities actively. Banking system liquidity ratios only declined from 20.8 percent in 1951 to 19.2 percent in 1960. Between 1960 and 1966, however, liquidity ratios declined by nearly 20 percent to 15.5 percent as the Kennedy-Johnson Administration's Vietnam War financing required renewed Federal Reserve monetary inflation.

In the early 1960's, after more than 20 years of government prohibitions against paying demand deposit interest and, simultaneously, Federal Reserve inflation of reserves and demand deposits, banks began resorting to the "purchase" of liquidity through the issuance of large certificates of deposit. Since central bank reserve inflation is primarily initiated through a handful of money center banks in New York, these banks were disproportionately induced to expand their loans and investments. But at the same time, branching restrictions severely limited their ability to collect local deposits. As a result, the larger banks began issuing certificates of deposit to large depositors. This was a major shift toward riskier methods of liquidity management resulting from central banking interventions such as deposit guarantees, interest and branching prohibitions. No longer was the focus on maintaining proper reserve levels in relation to deposits or on preserving liquid, short-term loan portfolios. As bank asset portfolios became less liquid, increasing reliance was placed on "borrowing" liquidity in the open market, a violation of the very purpose of maintaining "reserves" in times of illiquidity or crises. Periods when depositors demanded an increase in the currency-to-deposit ratio did not coincide with the banking system's desire to seek deposits. For the individual bank, periods of depositor suspicion about insolvency or liquidity were precisely the times when bank borrowing in the market became most difficult. "Liability management" became not a solution to the problem of bank illiquidity but a rationalization for it.

Statistics in the postwar period show a marked increase in reliance on borrowing instead of preserving liquidity. This dangerous trend would accelerate in Phase III of central banking.

#### Asset Quality

The middle years of central banking witnessed a continuing increase in the duration of loan portfolios as banks gradually extended credit beyond the more limited, cautious confines of short-term commercial paper. Central banking promoted this trend. The Banking Acts of 1933 and 1935 limited bank activities in corporate security markets, leading banks to substitute term lending. The establishment of deposit insurance in 1933 also

encouraged lengthening of the maturity of bank loan portfolios. Bank balance sheets were increasingly mismatched. Long-term lending was financed not by real capital or long-term savings but by the creation of short-term demand deposits. To further promote this trend, Federal Reserve rules changed in 1933 to allow loans of all maturities to be used as assets for discounts and advances at the central bank. Under a revision of bank examination standards in 1934, term loans were no longer classified as "slow" or nonperforming loans. In 1939 term loans accounted for a fourth of the dollar volume of business loans; by 1946 this increased to a third of all loans.<sup>18</sup>

The onset of more volatile inflation and interest rates in Phase III of central banking would bring out the real risk of such portfolios. Prohibitions against underwriting corporate debt and equity did not mean banks were encouraged to avoid long-term investments in business. Rather, it meant that such investment would not be rewarded with any dividends or capital appreciation, could not be easily traded in a secondary market for liquidity, and could not escape the vagaries of interest rate volatility. Due to Glass-Steagall, commercial bank holdings of corporate stocks and bonds as a percentage of earning assets fell from 29 percent in 1929 to only 5 percent in 1960.<sup>19</sup>

Consumption lending continued to boom in this middle phase of central banking. According to one source, "Commercial banks were the largest single source of the \$50 billion expansion in consumer credit from 1945 to 1960."<sup>20</sup>

### Profitability

Relative stability marked the postwar period in banking until 1970. But the potential was accumulating for future deterioration and instability in bank profitability as a result of lengthened loan portfolios, more consumptive loans, mismatched balance sheets, and the economic disruption resulting from price inflation and interest rates.

### 3. Phase III (1969-Present)

#### a. Characteristics of the Period

Central banking in its purest form has been established in the past 2 decades and as our theory suggests, its impact on the financial condition of the banking system in actual practice has been especially damaging.

<sup>18</sup> Merris, Randall C., "Business Loans at Large Commercial Banks: Policies and Practices," *Economic Perspectives*, Federal Reserve Bank of Chicago, November/December 1979, pp. 15-23.

<sup>19</sup> Trescott, Paul B., *Financing American Enterprise: The Story of Commercial Banking*, Harper & Row, New York, 1963, p. 209.

<sup>20</sup> *Ibid.*, p. 229.

In 1965 the Federal Reserve removed the 25 percent gold cover on member bank deposits and in 1968 removed the requirement that 25 percent of its notes be backed in gold. Having suspended domestic convertibility of deposits and notes into specie in 1934, it took central banking only 3 decades to deplete these reserves by the inflationary overissuance of Federal Reserve notes and member bank reserves. Meanwhile, the banking system was building deposits at ever greater multiples of the expanding reserve base. The process was accelerated when foreign central banks, which under the Bretton Woods system established in 1944 retained the right to convert their dollars into gold, began doing so in the 1960's in response to the Fed's inflation. The specie convertibility for foreign central banks was suspended in August 1971 as the Federal Reserve defaulted on its international obligations. Any private company or bank that defaulted on such a massive scale would have been put out of business. Yet the Fed remained in operation, on the theory that it was a sovereign, not a private bank.

Today, officials at the Fed and the Treasury Department claim to offer solutions to "Third World" debt defaults, even though the U.S. Government engaged in its own massive default by going off the international gold standard in the early 1970's. Only because the dollar was internationally accepted, because of its historical gold backing, was the U.S. Government able to default on its obligations with seeming impunity. This default set an example for foreign "sovereign risks" and for the U.S. banks that lent such countries billions of dollars in the decade that followed. In suspending convertibility of the dollar in 1971, the U.S. Government in effect decided to hoard its supply of gold despite the belief of Keynesian economists and Federal Reserve officials that gold was an unimportant "relic" of no future consequence to a modern monetary system and their repeated denunciations of people who tried to hoard gold in the 1930's to preserve their purchasing power.

The final step of instituting complete specie inconvertibility in 1971 introduced the final phase of central banking, characterized in its purest form. The supply of money and credit was now to be provided under *completely* arbitrary and unscientific discretion by a politically motivated central bank. No vestiges of free banking characteristics remained other than the private ownership of banks. With the growing government take-over of failed banks and more intensive regulation of surviving ones, even this remaining free banking feature is threatened.

The monopoly production of Federal Reserve notes and bank reserves in this phase became completely discretionary with no effective limit. Under the Monetary Control Act of 1980, the "assets" that the Federal Reserve deemed eligible for discount were extended to include *any* asset that

it found to be acceptable in its own discretion, including obligations of foreign governments such as in Latin America. This provision permits the U.S. Government (taxpayers) to bail out debtor foreign governments and it has been used in the recent effort of the U.S. Treasury to bail out Mexico.

Deposit insurance coverage was more than doubled in Phase III from \$40,000 of a deposit to \$100,000, completely superseding the typical deposit maintained by the "small" depositor that central banking alleges to protect. This unwarranted expansion of deposit insurance coverage gave further encouragement to the substitution of government-guaranteed liabilities for private capital and to mismatched balance sheets.

Reserve requirements also were lowered further in the Monetary Control Act, including the complete elimination of reserves on some deposits. This effectively allows for an infinite money multiplier and unlimited inflating capacity. The Act also extended the control of the Federal Reserve beyond member commercial banks to all depository institutions.

Direct bailouts of large insolvent banks concurrently have become explicit central banking policy, especially since 1984 when Continental Illinois was bailed out and nationalized. In that year the Comptroller of the Currency declared that large banks were "too large to fail." Numerous other failures routinely have been masked by regulators who hastily arrange "mergers" of unsound banks into stronger ones. The Chemical Bank acquisition of Texas Commerce is an example. Regulators now "acquire" the bad loans in order to create a healthier bank; that is, the banks receive liquid assets for illiquid, unsound assets. Earlier methods employed to *close* all banks even when some still were sound (the "holidays" of the 1930's) have been replaced with the policy of keeping most banks *open* even when most are unsound. Either way, sound banks are harmed by having to fund deposit insurance systems and by having their reputations questioned along with those of imprudent banks. Regulators in some cases have criticized banks that promote themselves as more conservatively managed than competitors, saying that the government, not private bank managers, bears the responsibility of banking safety.

In Chapter III we discussed the tendency of central banking to lead to the socialization of credit. Government agencies, including the central bank, become increasingly involved in allocating bank credit among politically preferred recipients. In the most recent phase of central banking this evolution has been most pronounced. Even when central banking was first established in 1913, Section 13 of the Federal Reserve Act outlined certain types of loans that the government required private banks to make if they were to have access to central bank liquidity. Government also has encouraged banks to provide credit during times of war by purchasing its

bonds. But government intervention in the lending process has accelerated in recent decades. Since the 1930's, special subsidies and encouragement have been given for the extension of credit to the farming and housing sectors. In recent decades, government policy also has encouraged lending to education, for small business, and to foreign countries.

Government agencies and programs designed to allocate credit have either directly brought about widespread loan defaults, taxpayer losses and corruption, or promoted unsound lending practices in the private banking system itself. These include the Farm Credit System, the Federal Home Loan Bank System, the Federal Housing Administration, the Farmers Home Administration, the Student Loan Mortgage Association, the Small Business Administration, the Commodity Credit Corporation, the Export-Import Bank, the International Monetary Fund, the World Bank, the Credit Control Act of 1969, and the Community Reinvestment Act of 1974.<sup>21</sup> The direct and indirect (bank loan guarantees) obligations of these agencies has risen from \$20 billion in 1970 to over \$700 billion in 1989. Billions of dollars of unsound loans have been made at the encouragement of these agencies and as a result of the general inflationary expansions of central banking.

Instead of repealing the central banking powers that make this profligacy possible, however, government officials have extended the central banking intervention still further. In the 1980's the Fed, the Comptroller of the Currency, the FDIC, and state banking regulators have dramatically increased their intervention in the lending process of private banks by issuing still more rules, this time on lending to consumers, to the real estate sector, and to "highly leveraged transactions (HLTs)." Since 1986, government regulators have been permanently placed on location at the country's dozen largest banks.<sup>22</sup> The banking system progressively weakens not in spite of central banking but because of it. Yet government bailouts have become more widespread and government control over bank management practices has become more intensive. Rapid growth in micro-economic bank regulation has characterized this latest phase of central banking and will continue to do so in the future if the basic features of central banking remain in place. Government nationalization of the banking system is happening not by outright expropriation but by gradual evolution and literal default.

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<sup>21</sup> For a summary of government intervention in credit allocation and its effect on bank lending practices, see "How to Make Bad Loans and Get Away With It," *Research Reports*, American Institute for Economic Research, December 5, 1988. See also William Gale's "The Big Debt Overhang," *The Wall Street Journal*, October 25, 1989.

<sup>22</sup> "Examiners Placed in Biggest Banks on Full-Time Basis," *American Banker*, February 5, 1986.

## b. Banking System Financial Condition (1969-Present)

Central banking in its purest form has accelerated the deterioration in the soundness of the banking industry in the last 2 decades, especially in the 1980's. Government deficits have reached unprecedented proportions and the need to finance them has led our central bank to double the money supply in 1 decade alone, from \$400 billion in 1980 to \$800 billion in 1990. Yet real production and trade have not doubled. Speculation in the stock and real estate markets has been extensive. And although we have not suffered a recession for nearly a decade, if we consider capital inadequacy or illiquidity, problem loans, declining profitability or bank failures, the banking system currently is in its worst financial condition since the Great Depression. The main difference is that today there is no limit to central banking's power to inflate money and credit and, therefore, no limit to its power to undermine the private banking system.

### Capital Adequacy

Deterioration in the capital adequacy of the banking system has continued its secular trend downward over the past 2 decades, especially for larger banks that bear the initial and fullest impact of Federal Reserve open market operations. Compared with earlier phases of central banking, today there are fewer and briefer periods in which capital adequacy improves because government officials generally oppose any real liquidation of unsound credit and unsound banks. From 1971 to 1989 capital ratios for the entire banking system decreased 24 percent, from 7.4 percent to 5.6 percent.

The central banking policy of monetary inflating undermines capital adequacy. One banking professor has noted during this phase that "inflation is a key to present bank capital adequacy problems. For as we experience double digit inflation, the basic money supply of bank deposits grows, and the amount of each loan request grows. Thus bank deposits and assets expand in size. Yet the bank's capital does not grow to match the expansion in the other two. A bank finds that its capital quickly becomes inadequate."<sup>23</sup>

Not only the level of capital in relation to bank assets but also its quality and composition have deteriorated in this phase of central banking. Bank regulators have promoted this trend. Since 1962, when the Comptroller of the Currency introduced the policy of accepting long-term debt as "capital," regulatory definitions of capital have been watered down further to

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<sup>23</sup> Nadler, Paul S., "Managing the Bank Capital Position," *Bankers' Monthly Magazine*, April 15, 1981, p. 6.

Table 10  
**CAPITAL ADEQUACY, 1971-1988**  
(Dollars in Billions)

Year	Capital	Assets	Ratio	Year	Capital	Assets	Ratio
1971	\$44.4	\$ 598.9	7.4%	1980	\$109.8	\$1,384.9	7.9%
1972	49.4	660.3	7.4	1981	126.7	1,543.7	8.2
1973	54.2	746.3	7.3	1982	133.0	1,704.0	7.8
1974	60.1	852.0	7.1	1983	137.0	1,865.2	7.3
1975	64.8	896.6	7.2	1984	140.2	2,135.6	6.6
1976	72.0	957.0	7.5	1985	151.3	2,303.0	6.5
1977	81.8	1,074.2	7.6	1986	170.9	2,498.1	6.8
1978	89.9	1,215.0	7.4	1987	170.6	2,719.6	6.2
1979	98.9	1,272.7	7.8	1988	188.8	2,931.6	6.4
				1989*	181.6	3,238.6	5.6

\* December 31, 1989.

Source: *Federal Reserve Bulletin*, Table 1.25 (for June 30 or nearest available date), 1971-90.

include even goodwill and loan loss reserves (since 1976) as capital. This has not solved capital inadequacy in banking because mere regulation will not alter the distinguishing characteristics of debt and equity contracts.<sup>24</sup> This process of redefining capital represents regulatory attempts to obfuscate, not solve the problem of capital adequacy deterioration. In fact, regulators have developed elaborate theories of "forbearance" that involve deliberately relaxing standards of prudence and safety so that unsound banks will continue to operate.<sup>25</sup> According to banking professor Paul Nadler, "when banks needed more capital, the regulators simply changed from generally accepted accounting principles to regulatory accounting principles." These offer considerably more liberal accounting.<sup>26</sup>

Today, many large banks are operating with capital ratios below 5 percent. But even these ratios overstate capital adequacy in the banking system because banks do not adjust the value of their loan portfolios to reflect market values. The resort to accounting gimmickry to mask weakness in the banking system is not new, although it is accelerated when that weakness becomes widespread. One economist notes that "indeed, the use of book value accounting in banking was promoted by regulators in the 1930s to deliberately mask the banks' poor financial condition.... It appears that opposition to market value accounting comes less from banks

<sup>24</sup> Boczar, Gregory E., "Bank Holding Company Long-Term Debt: Is it Capital?," *A Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, May 1980, pp. 241-242.

<sup>25</sup> See Dean Forester Cobos, "Forbearance: Practices and Proposed Standards," *FDIC Banking Review*, Spring/Summer 1989, pp. 20-28.

<sup>26</sup> "Nudity is Not Clothing; Accounting is Not Capital," *American Banker*, November 6, 1989.

themselves than from the regulators.”<sup>27</sup> The practical difficulties of marking loans to market value are starting to be overcome with the rise of a secondary market for bank loans. But this market is simultaneously providing evidence of how far bank loan values are overstated. For example, most banks have written down loans to Latin American countries by 25 percent, carrying them in effect at 75 cents on the dollar. Yet the secondary market for such debt shows its market value to be approximately 25 cents (as of late 1989) and declining rapidly, from 65 cents only 1 year earlier.<sup>28</sup> Many money center banks would wipe out their equity cushion by recognizing the market value of these loans alone. The market for bank stocks has reflected this fact better than bank accountants and regulators (who should know better), as investors discount bank stock prices in relation to book values. Capital adequacy also has been overstated to the extent that banks have moved a significant amount of their liabilities off the balance sheet in the form of credit commitments, interest rate swaps, and standby letters of credit.<sup>29</sup> The most important point is that regulatory obfuscation and accounting gimmickry, not genuine reform, have been the preferred approaches of central banking with respect to capital inadequacy in banking.

The dramatic expansion of money and credit associated with the central bank’s unlimited power to create fiat money in this phase resulted in bank loans and deposits dwarfing capital. Further, the nonmarket guarantee of these deposits, first instituted in 1934 with the introduction of the FDIC, has been found by an increasing number of economists to promote the substitution of insured deposits for equity.<sup>30</sup> Economists also have shown that regulatory concern for capital adequacy in banking is primarily for purposes of protecting the fundamentally flawed deposit insurance system, not out of any fundamental commitment to prudent banking.<sup>31</sup>

### Bank Failures

In the past 10 years the rate of bank failures, the growth of what regulators deem “problem” or near-insolvent banks, and the number of bank

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<sup>27</sup> Kaufman, George G., “The Truth About Bank Runs,” in *The Financial Services Revolution*, Kluwer Academic, Boston, 1988, pp. 9-40.

<sup>28</sup> *American Banker*, October 31, 1989.

<sup>29</sup> Nelson, Richard W., “Off-Balance Sheet Banking and Bank Capital,” *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, May 1-3, 1985, pp. 511-527.

<sup>30</sup> Peltzman, Sam, “Capital Investment in Commercial Banking and its Relationship to Portfolio Regulation,” *The Journal of Political Economy*, January/February 1970, pp. 1-26. See also Buser, Stephen A., Andrew H. Chen, and Edward J. Kane, “Federal Deposit Insurance, Regulatory Policy, and Optimal Bank Capital,” *The Journal of Finance*, March 1981, pp. 51-60.

<sup>31</sup> Friedman, Benjamin M., “Bank Capital: The Deposit-Protection Incentive,” *Journal of Bank Research*, Autumn 1975, pp. 208-218.

Table 11  
BANK FAILURES, 1971-1988

Year	Banks Closed or Bailed Out	Problem Banks	FDIC Disbursements (In Millions)
1971-76	46	na	\$3,957
1977	6	368	27
1978	7	342	546
1979	10	287	90
1980	10	217	152
1981	10	223	1,000
1982	42	369	2,177
1983	48	642	3,544
1984	80	848	7,598
1985	120	1,140	2,714
1986	145	1,484	4,587
1987	203	1,623	4,834
1988	211	1,400	8,175

na Not available.

Source: *Statistical Abstract of the United States*, 1989, Table 810 for banks closed and problem banks. FDIC 1988 *Annual Report* for banks bailed out and FDIC disbursements.

bailouts has accelerated. Although many of these failures were of small, undiversified banks, the most remarkable aspect of this trend is the growing failure of larger banks such as Franklin National (1974), First Pennsylvania (1980), Seafirst (1982), Continental Illinois (1984), Texas Commerce (1986), First City Bancorp (1987), and First Republic (1988). In each of these cases the FDIC found it necessary to rescue the banks or assist in their survival, to the point now where it still owns 45 percent of the common stock of Continental Illinois and over half of First City. One prominent professor of banking has set out a proposal by which the FDIC would nationalize failed banks, arguing, rather inconsistently, that this would "inject genuine and productive market discipline" in banking.<sup>32</sup>

The deteriorating condition of the FDIC itself is further evidence of the poor financial condition of the industry.<sup>33</sup> The agency now holds record levels of defaulted loans taken off the balance sheets of failed banks that it "rescued." To obscure the fact that the insurance fund reserve levels are inadequate to handle the current "problem bank" list, the FDIC has begun issuing notes and capital certificates to banks — not cash liquidity available for depositor withdrawal but mere "promises to pay" in the future. For regulatory accounting purposes banks are allowed to count these as

<sup>32</sup> Benston, George J. *et al.*, *Perspectives on Safe and Sound Banking*, MIT Press, Cambridge, 1986, p. 106. The "modified trusteeship" proposal is that of George Kaufman.

<sup>33</sup> Kane, Edward J., *The Gathering Crisis in Federal Deposit Insurance*, MIT Press, Cambridge, 1985.

capital, a further dilution of capital quality (and liquidity) in the system promoted by central banking. The FDIC's \$14 billion reserve fund (down from \$18 billion in 1986) represented an all-time low of 0.8 percent of insured deposits in 1988. In effect, an insignificant fraction of the nearly \$2 trillion in banking system deposits need default in order to wipe out the FDIC fund. The ratio is low to begin with, but it has declined continuously, from 2 percent in 1941.<sup>34</sup> According to a Brookings Institution study, the FDIC is overstating its reserves by billions of dollars because of its exposure to hundreds of insolvent banks it refuses to close down. The FDIC — actually, American taxpayers — faces the same fate as the failed FSLIC.<sup>35</sup>

The “problem bank” list compiled by regulators is not made available to the public and statistics are not available on the size or location of the banks on the list, but the narrow capital ratios of the larger banks and the very reluctance of regulators to reveal the list suggest that many of the problems are with larger money center banks.

### Liquidity

Liquidity in the banking system has deteriorated more significantly in the latest phase of central banking, due primarily to the excessive expansion of deposits and loans on a base of inflated reserves. With all limits on the inflating capacity of the central bank lifted in the past 20 years, liquidity fell by 44 percent to a cash/deposits ratio of 10.7 percent. Even this ratio overstates liquidity, since the “cash” at a bank now primarily includes deposits with other banks and with the Federal Reserve. To include interbank deposits in liquidity measures is double counting. The ratio of actual vault cash to deposits has been approximately 1 percent in the past decade. As with bank capital adequacy, liquidity has deteriorated both in direction as well as composition. There is strange irony in the fact that greater inflating capacity on the part of central banking would lead to illiquidity. But it is precisely the “easy money” policies of the Fed, together with active “open market” operations, that induce banks to lower liquidity and rely solely on the Fed. Lower reserve requirements in the Monetary Control Act of 1980 also play a part.

### Asset Quality

Central banking in 1971, newly freed from its last token connection to any specie standard, brought about a tremendous rise in monetary and price inflation. Banks were induced to extend excessive volumes of money and credit to farming, housing, oil and gas industries, and to impoverished

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<sup>34</sup> *FDIC Annual Report*, 1988, p. 74.

<sup>35</sup> “Analyst Sees Decline in FDIC Strength,” *American Banker*, November 20, 1989.

Table 12  
**LIQUIDITY, 1971-1988**  
(Dollars in Billions)

<i>Year</i>	<i>Cash</i>	<i>Deposits</i>	<i>Ratio</i>	<i>Year</i>	<i>Cash</i>	<i>Deposits</i>	<i>Ratio</i>
1971	\$ 96.6	\$502.4	19.2%	1980	\$150.6	1,048.1	14.3%
1972	91.6	544.8	16.8	1981	169.8	1,165.9	14.5
1973	90.9	606.7	15.0	1982	165.4	1,284.8	12.8
1974	105.2	679.1	15.5	1983	176.9	1,402.7	12.6
1975	113.3	722.2	15.7	1984	179.1	1,535.5	11.7
1976	125.1	782.8	16.0	1985	190.1	1,657.1	11.4
1977	139.1	861.9	16.1	1986	196.0	1,791.9	10.9
1978	166.8	965.7	17.3	1987	207.1	1,924.9	10.7
1979	146.3	971.3	15.0	1988	221.6	2,044.4	10.8

*Source: Federal Reserve Bulletin, Table 1.25 (for June 30 or nearest available date), 1971-90.*

Latin American countries. The magnitude of this excessive credit expansion has been unprecedented in banking history. The dramatic rise in government programs for credit allocation and guarantees, from the Farm Credit System to the IMF, played a major part in this expansion.

The artificial inflation of land and commodity values could not be sustained in the face of the monetary disinflation undertaken in the early 1980's to bring down peak price inflation rates of 14.5 percent and peak interest rates of 21.5 percent of the late 1970's. Anti-branching restrictions encouraged banks in the Southwest and Midwest to lend disproportionately to the major industries of those regions, namely oil and gas, real estate and farming. Without portfolio and deposit diversification, these banks were doomed to fail, especially in the aftermath of an inflationary cycle. The high rates of bank failure in Texas and Illinois offer a prime example of this problem. These were the country's two "unit banking" single-office states that artificially tied banks to local industries. Texas banks made too many oil loans. Illinois banks, such as Continental, had to rely on distant, unreliable deposit sources. Anti-branching laws have been reformed only as a last resort, such as in Texas, where the banking system effectively collapsed in the mid-1980's. Every major Texas bank failed, and regulation was the problem, not the solution. Overlending to the farm belt was further exacerbated by explicit and implicit government guarantees of farm credit not obtainable under free banking. The massive losses (nearly \$12 billion) suffered by the \$70 billion Farm Credit System alone is a testament to the disastrous consequences of a pure central banking regime.

The massive increase in loans by money center banks to socialist Latin American countries was also a consequence of the central banking regime. Government guarantees, explicit and implicit, from such central banking

institutions as the International Monetary Fund, the World Bank, the Federal Reserve and the U.S. Treasury further promoted commercial bank lending to uncreditworthy, backward countries.<sup>36</sup> Many international bankers justified "Third World" lending on the view that they were innocently "recycling" OPEC deposits. But many of the loans clearly were for purposes of consumption, not production, and were made to socialist governments, not private sector enterprises. As we shall see in the next chapters, free banking is more dedicated to financing production, not consumption.

Another common view of some bank executives toward Latin America was that "sovereign risks don't default." They failed to recognize the extent of socialism in those countries. When government already owns or controls most of a country's resources, there is hardly much more to access when times are tough. There also was evidence of massive capital flight out of these Latin American countries and in many cases the magnitude matched the amount of money lent by the commercial banks to that region. This did not stop the banks from lending *and* profiting by capital flight deposits. In the 1960's, U.S. banks were lending less than \$10 billion to Latin American countries. By 1989, after default by Mexico (1982), Bolivia (1984), Peru (1985), Argentina (1986), Brazil (1987), and Venezuela (1988), those banks had lent over \$250 billion. In 1987 banks earned only \$3.7 billion vs. \$17.9 billion in 1986, a result of taking \$18 billion in writeoffs in connection with Latin American debts. In 1989 banks wrote off a record \$22.2 billion more of such loans, almost 10 percent of capital.

Only central banking could make possible and promote such wide-scale malinvestments. Despite widespread defaults and the deleterious effect of these loans on bank asset quality, today government continues to encourage bank lending to defaulted countries as evidenced by the "Baker Plan" advocated by the U.S. Treasury Secretary in 1985.<sup>37</sup> To enlist support, the U.S. Treasury during this phase of central banking actually has begun lending directly to Latin American countries. More recently, the U.S. Treasury assisted banks in a partial bailout of Mexico — costing taxpayers \$500 million.<sup>38</sup> Such imprudence and irresponsibility would be virtually impossible under free banking. The banks' disastrous experience

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<sup>36</sup> O'Driscoll, Gerald P. and Eugenie D. Short, "Safety-Net Mechanisms: The Case of International Lending," *The Cato Journal*, Spring/Summer 1984, pp. 185-204. In the same journal, see also "The Politics of IMF Lending," by Fred L. Smith, pp. 211-241.

<sup>37</sup> The plan advised, incredibly, that \$40 billion in *new* loans be extended by banks to these same countries, over a 3-year period. Although it has been superseded by the Brady Plan, the U.S. Government continues to prop up "Third World" lending.

<sup>38</sup> "Treasury Plans to Sell Mexico Cut-Rate Bonds," *The Wall Street Journal*, January 8, 1990.

with "Third World" lending has not prevented them from aggressively pursuing lending to Eastern Europe.<sup>39</sup> Again, the major incentive to such lending is the continued existence of central banking and government-supported agencies such as the IMF and the World Bank that guarantee such loans.

Another phenomenon characteristic of the last decade is banks' resort to financing "leveraged buyouts" and acquisitions, in many cases a form of consumptive, not productive, loans. Such loans usually exceed 5 years in term and borrowers have little or even negative tangible equity. Years of central banking inflation, together with companies' use of historical cost accounting, made the assets on corporate balance sheets considerably undervalued at the same time that revenues and profits were inflated and overstated. Meanwhile, the 1980's saw government debt triple from \$1 trillion to \$3 trillion and the money supply double from \$400 billion to \$800 billion. All of these factors, together with government's promotion of private debt through tax-deductibility, encouraged the boom in "leveraged acquisitions."

The magnitude of the deterioration in loan quality in the banking system is evident in the ratio of net loan losses to average total loans. This measure has increased dramatically in the last decade.

As the financial condition of the banking system has deteriorated, bank credit ratings also have fallen precipitously. As recently as 1980 Moody's Investor Services ranked fourteen major banks as AAA, their highest rating. Today only one U.S. bank is rated AAA. This deterioration has raised the cost of capital for banks by means of lower stock prices, lower price-earnings ratios, and lower discounts of market value to book value. This has had the severest impact on the larger commercial banks whose balance sheet growth has been the fastest, whose capital is the most inadequate, and who must access equity markets to attract external capital. Over the past 25 years, bank price-earnings ratios have significantly lagged market price-earnings ratios and stock prices have traded at ever-steeper discounts to stated book value. According to Salomon Brothers, price-earnings ratios of 12 money center banks fell gradually from 19.2 times in 1961 to 10.8 times in 1971 and to 5.0 times in 1981 before recovering somewhat to 8.0 times in 1985 in the less-inflationary 1980's. Regional banks have not fared much better, with price-earnings ratios falling from 19.9 times in 1961 to 5.7 times in 1981 before rising to 9.9 times in 1985. In either case, investors are willing to pay less than half of

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<sup>39</sup> "Western Bankers Wait for Politicians to Take Lead on East Bloc," *American Banker*, November 14, 1989. In this article, representatives of Manufacturers Hanover, which lost billions in Latin America, discuss East Bloc lending as potentially "very rewarding," but that financing must be supported by the IMF and World Bank.

what they did 20 years ago for bank earnings. This trend defies cyclical variation and does not match any similar trend in other industries. Price-earnings ratios of money center banks as a percentage of ratios of the Standard and Poor's 500 have deteriorated continually from 95.3 percent in 1962 to 56.4 percent in 1985.<sup>40</sup> This is the markets' negative assessment of the financial deterioration of the banking system.

The ratio of bank stock prices to book values also has deteriorated markedly in this purest stage of central banking. The massive inflation of the 1970's caused market-to-book value ratios of the top 35 banks to fall from 140.7 percent to 59.2 percent in 1980. The less-inflationary 1980's enabled a recovery to 114.0 percent in 1986, still well below the level of 15 years ago. The money center banks have not traded at book value since 1973.<sup>41</sup> Raising capital is prohibitive in the face of these trends. This financial profile further retards the inflow of new capital into the industry.

One effect of the greater cost of capital for banks is that its interest rates on loans to higher quality borrowers are not competitive with commercial paper rates as an alternative funding source. Banks no longer possess the highest, unquestioned credit ratings, and they have lost considerable, high-quality short-term corporate lending business as a result. Many top bank borrowers have higher credit ratings than their banks. The commercial paper market, virtually nonexistent before 1970, totaled over \$250 billion for nonfinancial corporations in 1987. Considering that commercial banking has lost this business, yet its loan portfolios have expanded over the same period, presumably the portfolio composition has shifted from higher quality to lower quality credits. Between 1975 and 1986, banking's share of short-term borrowings by large manufacturing firms (assets in excess of \$1 billion) fell continuously from 48 percent to 27 percent.<sup>42</sup> The FDIC reports that the ratio of bank commercial and industrial loans to total outstanding commercial paper has fallen dramatically from 99:1 in 1966 to 13:1 in 1976 and 6:1 in 1986.<sup>43</sup> In effect, the 90-day loan to IBM to finance inventory production prior to shipment (characteristic of earlier banking) has been replaced with the 20-year loan to Brazil, the 8-year acquisition loan to a leveraged company in a cyclical business, the long-term real estate construction loan, oil and gas, and farm loans extended against inflated values, and consumer and other consumption loans.

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<sup>40</sup> "Historical Perspective of Money Center and Regional Bank Absolute and Relative Price/Earnings Multiples, 1960-85," *Salomon Brothers*, March 20, 1986.

<sup>41</sup> "Historical Perspective of Market Price to Stated Book Value Ratios for 35 Banks, 1970-86," *Salomon Brothers*, November 20, 1986.

<sup>42</sup> "Regulatory Burden Handicaps Low-Risk Banking," *Chicago Fed Letter*, No. 5, January 1988.

<sup>43</sup> "Mandate for Change," FDIC, October 1987, p. 6.

Table 13  
**NET LOAN LOSSES**  
**AS A PERCENTAGE OF AVERAGE TOTAL LOANS, 1978-1987**

Year	Loss Ratio	Year	Loss Ratio
1978	.37%	1983	.68%
1979	.34	1984	.76
1980	.38	1985	.84
1981	.36	1986	.98
1982	.56	1987	na

na Not Available.

Source: *Statistical Abstract of the United States, 1988, Table 779.*

### Profitability

Over the past 15 years profitability has fallen in the banking industry, especially for larger banks, due to bad loans and prohibitions against entry in more profitable markets. The massive central banking inflation also has hurt profitability. One banking professor notes that "instead of gaining more retained earnings in a period of inflation, bank earnings growth frequently slows. This is due to the rising costs of doing business, coupled with the problem of being stuck with long-term loans yielding less than the going market rates as interest rates rise in an inflationary era."<sup>44</sup> For money center banks in the 1980's, even these deteriorating profitability rates are overstated, as regulators and accountants have sanctioned the policy of larger banks lending money to Latin American nations to pay interest on their debt.

An extensive study of this deterioration in bank profitability over the past 15 years was recently conducted by the Federal Reserve Bank of New York.<sup>45</sup> Among the "causes" cited for this deterioration are 1) the deregulation of deposit interest rates, 2) competition for transactions accounts from savings and loan associations, 3) the erosion of banks' special advantages as sources of information about the needs and borrowing capacities of large commercial borrowers, and the resulting rise of "securitization," 4) the "major acceleration of inflation," 5) the "unprecedented" rise in the level and volatility of interest rates, and 6) the effects of cyclical disinflation on asset prices. Although the study does not identify it, these are all symptoms of central banking:

1) The uncertainty and cost associated with "deregulating" deposit interest rates comes from the fact they were regulated to begin with. For

<sup>44</sup> Nadler, Paul, "Managing the Bank Capital Position," *Bankers' Monthly Magazine*, April 15, 1981, p. 6.

<sup>45</sup> "Recent Trends in Commercial Bank Profitability," A Staff Study, Federal Reserve Bank of New York, 1986.

Table 14  
**RETURN ON ASSETS, 1979-1987**  
 (Percent)

1979	1980	1981	1982	1983	1984	1985	1986	1987
.88	.78	.77	.72	.64	.63	.66	.64	.13

Source: *Statistical Abstract of the United States, 1987*, and the FDIC.

decades banks had been induced to fund their loans disproportionately with short-term deposits. Yet even deposit interest rate deregulation would not so severely squeeze bank profits if interest rates were not so high and deposits so short term (subject to "repricing" upward). These two phenomena are a result of central banking; high interest rates result from inflationary policy, and artificially short liability structures are a result of Federal deposit insurance.

2) "Competition for transactions accounts" from thrift institutions is not competition in the sense of laissez-faire banking. For it is central banking restrictions that artificially segregate the financial services industry into commercial banks, thrift banks, and investment banks.

3) The "erosion of banks' special advantage as a source of information" in credit intermediation results from decades of being excluded from the field of investment banking, a consequence solely of central banking restrictions. Banks have not profited from "securitization" because they are legally forbidden to participate in the securities markets.

4) The "major acceleration" of price inflation in the past 15 years certainly erodes bank capital adequacy and profitability, but is the proximate, not the fundamental, source of these problems. The central bank is responsible for monetary inflating (hence bank deterioration) and central banking in its purest form, especially since 1971, is responsible for the "major acceleration" of price inflation.

5) The "unprecedented" rise in the level and volatility of interest rates also undermines the profitability and the financial condition of banks but this also is a result of central banking's inflation of money and credit.

6) Bank assets do decline in price and require periodic writeoffs due to "cyclical disinflation," but central banking inflating is a precondition for disinflation.

#### Bank Management

Bank managers have never been so imprudent, so incautious as during this pure phase of central banking. Conservative management practices in banking have given way to widespread irresponsible lending and balance

sheet management. Managers do not fully expect to be held accountable for their mismanagement and many are not even cognizant of the fundamental determinants of their growing risk-taking. Bank mismanagement is ambiguously attributed to “economic conditions” without a comprehension of the wider institutional structure (central banking) that promotes risk-taking. Merger and acquisition activity in the industry remain largely resisted or delayed by regulators, giving further comfort to poor managers.

It would be a mistake to believe that the long-term secular decline in capital and liquidity ratios in the banking system merely reflects a more sophisticated management of bank balance sheets by more capable bank managers. Bank managers are surely taking steps to minimize noninterest earning reserve levels and leveraging the banking institution to maximize return on equity. But the removal of deposit insurance, the lender of last resort, and the decentralization of reserves would require dramatically different, more prudent bank management. These are features exclusive to a central banking regime, not to *laissez-faire* money and banking. If anything, greater management sophistication would be required under *laissez-faire* banking and the absence of any alleged “safety net.”

There still are bankers in the system today who are competent, conscientious, and honest. To their credit, many have developed important and innovative solutions to the inherent instability imposed by central banking. When restrictions imposed by the Glass-Steagall Act in the 1930’s prevented banks from underwriting securities and doing business with the best U.S. companies, they invented term loans. When branching and new product opportunities were blocked by law and harmed banks in the 1950’s, they created holding companies to permit growth and diversification. When interest rate ceilings and restrictions on deposit gathering, together with inflation-driven high interest rates, led to an outflow of deposits in the 1960’s and 1970’s, they created certificates of deposit. When central banking brought volatility to foreign exchange markets and interest rates in the 1970’s and 1980’s, banks created hedging products to enhance stability.<sup>46</sup> To the extent there has been any stability in the banking sector under central banking, it has been achieved by the creative efforts of skilled private bankers — *in spite of* central banking, not because of it. The point is not that competent, conscientious, and honest bankers do not exist today — it is that they become fewer in number under central banking because it is a system that rewards the opposite: the incompetent, the reckless, and the unscrupulous. Central banking offers the would-be

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<sup>46</sup> Finally, in response to double-digit growth rates in money and credit that ballooned bank balance sheets and dwarfed capital, they invented “securitization,” the process of preserving liquidity and capital adequacy by packaging loans and selling them in the secondary markets.

banker unlimited access to easy credit, a discount window, regulatory favoritism, lax accounting practices, and guarantees of most of his liabilities (deposits). Even if the banker fails with all this help, he is offered a bailout and his losses are masked or made up by still more central bank inflation, or by taxpayers, or by a deposit insurance fund that is replenished by higher levies on prudent banks. This is a system that inherently cannot avoid attracting less capable managers while penalizing successful and honest ones.

### **C. Money, Credit and the Business Cycle (1913-1988)**

#### *1. Money and Credit*

Bank failures and system weakness were extensive in Phase I of central banking, the system seemed to strengthen and regain stability in Phase II, and the system shows signs of real deterioration again in Phase III. Many economists have defended central banking as having provided stability to an otherwise unstable industry by citing the relative infrequency of bank failures since the formation of the FDIC. Bank failures from 1913-1933 are attributed largely to "insufficient powers" of the Federal Reserve. Since the formation of the FDIC, bank balance sheets have continued to deteriorate and lately, bank failure rates have risen while the basic signs of financial health have fallen precipitously.

While the bank failure rate has increased, it is often a narrow indicator of the health of the system. Massive bank failures are certainly a symptom of an unsound system. But the lack of high bank failure rates does not signify a sound system, especially when balance sheet ratios are deteriorating and government officials make explicit a policy of rescuing failed banks or merging them into healthier ones, thereby artificially understating their number. One revealing measure of the health of the banking system, beside those already cited, is the purchasing power of money. For one of the arguments for central banking is its alleged ability to save depositors from losses associated with "chaotic" free banking. The banking system is a substantial repository for the wealth and purchasing power of the economy that must be protected. Yet in more than three-quarters of a century of central banking, the purchasing power of the dollar under the monopolistic management of the Federal Reserve has dropped from \$1 in 1913 to less than 10¢ in 1988.<sup>47</sup> Had the money and banking system remained on a specie-based reserve system of money and credit, no such loss would have been experienced. For example, the purchasing power of gold over the same period actually has increased. We will see in the following chapters that, alternatively, free banking entailed sustained

<sup>47</sup> Welker, Edward P., "How Safe Is Your Bank?," *Economic Education Bulletin*, September 1987, American Institute for Economic Research, Great Barrington, p. 66.

purchasing power of money. Central banking has promoted and sanctioned a sort of “wildcat banking” of a magnitude that no free banking experience could match. One could fairly question the value of central banking to a depositor who is not allowed to suffer due to a failed bank, but who nevertheless loses 90 percent of the real value of his or her money over the course of a lifetime. Central banking as a system not only fails to protect but actually destroys the real value of money and deposits in the economy.

## 2. *The Business Cycle*

Certain characteristics of central banking have a profound effect on business cycles, such as reserve ratios, which are lower than under free banking, the deposit multiplier (and contractor), which is higher, and reserves, which are fiat and subject to arbitrary management. Consequently, central banking also has promoted wide swings in the business cycle, which takes place through its monetary policy and the banking system. Money and credit since 1913 have been expanded at rates far in excess of the growth rates of production and trade. Especially since 1971, when the last link of money to gold was severed, the result of central banking has been limited growth in real output, volatile and persistently high rates of price inflation, interest and unemployment. Business-cycle volatility has been greatest in the last 2 decades, during the purest form of central banking.

## 3. *The Evolution of Central Banking*

From its origins in 1913 to its latest interventions of the 1980's, our system of central banking has not had a favorable effect on the financial condition of the banking system. Although the statistics amply demonstrate the point, the impracticality of interventionism, well known from experience in other areas of the economy, is only recently being recognized in banking theory and practice. Despite attacks on 19th century free banking at the turn of the century, the actual source of agitation for the Federal Reserve was a desire for political control. The Congressional debates on the Federal Reserve Act in the fall of 1913 contained two distinct approaches. According to Senator John Shaforth of Colorado, “Our people have set their faces like steel against a central bank.” He went on, “The Democratic Party is opposed to a central bank, and well it should be, because of the fact that it would concentrate in one place such a combination of wealth as could be used to the disadvantage of the United States.”<sup>48</sup> Senator Shaforth had great foresight. The mistakes and manipulations of a single, monopoly bank would have far greater repercussions than was pos-

<sup>48</sup> Quoted in Timberlake, Richard, “Seventy-Five Years of Managed Money,” *Durell Journal of Money and Banking*, November 1989, p. 4.

sible under free banking. But there was another side to the debate. In support of the Act, Senator Gilbert Hitchcock of Nebraska said "The central bank consists of central control, and that is provided in this bill ... when you get your control centralized, you have a central bank." According to Hitchcock, the Federal Reserve "is established as a public utility. It is not to make money; it is to protect the depositors against loss; and it is to give the borrowing public a stable and uniform low rate of interest." In this, Hitchcock, unlike Shaforth, was not very prescient. He was more accurate when he stated, "We believe in Government control, real and actual, all the time, and we do not believe that banking interests in any community should be entrusted with that power to control the monetary system."<sup>49</sup>

Senator Hitchcock, of course, won the day. Despite its failure in the 1930's and the 1970's, central banking's control was extended. The evolution is summed up succinctly by banking professor Richard Timberlake: "The Acts of 1935 and 1980 formally changed the Fed from a system in which the Federal Reserve banks were autonomous and the Federal Reserve Board a referencing committee, to a system in which the board in Washington is all powerful and the Federal Reserve banks not much more than administrative units; from an occasional discounter of real bills at the initiation of member banks, to a constant and momentous monetizer of government securities at the initiation of the Open Market Committee; from an institution specifically subordinated to the gold standard, to one that has a monopoly on the initial creation of money, with no vestige of a gold standard remaining; from a lender of last resort for banks, to a perpetual motion machine for money creation; from an institution with an avowed interest in providing liquidity in support of sound banks, to one where every act is to enhance the power and prestige of itself and the government."<sup>50</sup>

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<sup>49</sup> *Ibid.*, p. 5.

<sup>50</sup> *Ibid.*, p. 37.

## V.

### THE THEORY OF THE EFFECTS OF FREE BANKING ON THE FINANCIAL CONDITION OF THE COMMERCIAL BANKING INDUSTRY

**I**N this chapter, we examine the basic features of free banking as they bear on the financial condition of the banking industry, primarily to provide a theoretical contrast to the primary features of central banking. After highlighting its main features, we present a theory of why free banking tends to promote a banking industry with a safer, more sound financial condition than is possible under central banking.

#### A. Relevant Characteristics of Free Banking

##### 1. *Decentralized, Market Provision of Specie Money*<sup>1</sup>

Under free banking the provision of money and credit is the sole function of the banking system. As required of other industries in a free market, those banks succeed that provide what individuals and enterprises demand in the way of money and credit. Historically, economists have observed that free market participants, given a choice among alternative monetary arrangements, have chosen specie (and/or paper money convertible into specie) as money, because of its properties, its universal acceptance, and its stable purchasing power.<sup>2</sup> In a free bank market participants find an institution willing to specialize in the storage, transfer, and lending of this medium of exchange, all at the direction of and in contract with the owner of the money. Free banks issue promissory notes (currency) and demand deposits in return for specie coin or bullion deposits to economize on specie and make it convenient for borrowers and depositors to conduct market exchange. A bank note is an unqualified promise to pay to the bearer on demand a sum of money (specie) specified on the face of the note. The money supply consists of private bank notes and demand deposits as well as the specie and subsidiary coin held by the public. Coins and bank notes are employed when exchange calls for money in bearer form, while checking deposits are used when the risk of transferring base money is too great and the payee is specified. Under free banking, depositors are free to convert their specie to bank notes or deposits

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<sup>1</sup> This section and those that follow draw heavily upon the following books: White, Lawrence H., *Competition and Currency: Essays on Free Banking and Money*, New York University Press, 1989; Selgin, George A., *The Theory of Free Banking*, Rowman and Littlefield, 1988; Glasner, David, *Free Banking and Monetary Reform*, Cambridge University Press, 1989; and Dowd, Kevin, *The State and the Monetary System*, St. Martin's Press, 1989.

<sup>2</sup> White, Lawrence H., "Free Banking and the Gold Standard," Chapter 6 (pp. 113-128) of *The Gold Standard: An Austrian Perspective*, Lexington Books, Boston, 1985.

and back again, according to contract, and free banks are not allowed to violate such contracts by suspending conversion with impunity.

The government's only role under free banking is to uphold voluntarily constructed contracts in the banking and money market. This includes bankers' promises to meet depositor withdrawals or transfers of specie coin on demand, just as bank borrowers must satisfy their promise to repay the banking system's loans when contracted.

The government conducts its finances in the medium of exchange accepted in the market, for it would not choose to receive in payment of taxes that which is not readily accepted by market participants. Government must undertake its market purchases by using the market-accepted medium of exchange.

Free banking does not prohibit various forms and quality of reserves; banks are free to issue notes and deposits without giving a depositor the right to convert into specie coin, or perhaps with conversion into nonspecie commodities, other banks' notes, or into no particular reserve at all. Mere electronic book entries, too, could be offered as reserves to those who find value in them. Under free banking it is only required that a bank not conceal its reserve practices, nor deliver other than what is contracted, nor defraud users of their property right in the deposited medium of exchange. Many of today's economists would advise bankers to dispense with specie-based bank management and adopt some alternative, subjective form, as above. However, history suggests that free banks with specie-convertible notes and deposits and high reserve ratios would out-compete banks with other forms of reserves and lower reserve ratios.

In contrast to central banking, the supply of money and credit under free banking is determined by the underlying level and volume of real production and trade in the economy willingly financed by banks, and by the banks' continuous contractual obligation to issue notes and deposits convertible into specie. The result is that free bankers "create" money only to the extent that heterogeneous commercial paper is discounted and converted into homogeneous paper money, and when they accept specie on deposit. Individual banks that overissued notes or deposits would face an adverse clearing balance, be drained of reserves and face illiquidity or insolvency. The supply of money and credit under central banking, as discussed, is determined in the aggregate by unscientific, political, and often arbitrary means.

Free banks transform existing credit created in the economy on the basis of real underlying production and trading transactions. Credit extension is likely to be in accordance with the "real bills" doctrine whereby banks lend against short-term self-liquidating commercial paper. How-

ever, longer-term production loans are not prohibited; they are more likely conservatively funded by bank capital and time deposits. Free banking does not prohibit banks from lending for nonproductive purposes (consumption or speculation) or from lending out the reserves required for note and deposit conversion. A free banking system leaves banks free to face the risk inherent in such unsound credit. The lending process does not genuinely create any net addition to the economy's supply of money and credit (if capital and time deposits are their source) but rather transforms a heterogeneous exchange between market participants into homogeneous money and credit and substitutes media appropriate in indirect exchange for media relevant to direct exchange.

## 2. *Private Clearinghouses*

The free banking system recognizes the benefits of economizing on specie and note transfer and organizes clearinghouses to settle interbank balances and to bring uniformity to bank note values.<sup>3</sup> Each bank finds a benefit in joining a clearinghouse and thereby having its notes widely accepted. Depositors, borrowers, and customers of separate banks engaged in indirect exchange demand from the banking system uniform note and deposit values. At the clearinghouse, banks in possession of the notes of competitors settle net differences and can convert their holdings into specie, ensuring an inherent natural check on overissuance of bank notes and deposits. Banks intent on avoiding this clearinghouse test or failing even to participate in a clearinghouse find their notes discounted in market exchange. Such notes fall into disuse relative to the notes of other banks. Such a bank loses business, and potentially goes out of business. Any unilateral resistance to convert is perpetually checked by the competing clearinghouses and by depositors themselves, who retain their contracted right to convert over the counter at the bank of issue. Clearinghouses under free banking offer the further, indirect, benefit of requiring banks to report their financial condition and improve it if necessary.

## 3. *Interbank Lending*

As there is no legal monopoly on note issue or reserve creation under free banking, there is no "lender of last resort," no method for the system to forestall artificially the liquidation of unsound credits or unsound banking institutions. There is a role, however, for private interbank lending in cases where banks face temporarily insurmountable reserve with-

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<sup>3</sup> Klein, Benjamin, "The Competitive Supply of Money," *Journal of Money, Credit and Banking*, November 1974, pp. 423-454. White, Lawrence H., "Competitive Money, Inside & Out," *The Cato Journal*, Spring 1983, pp. 281-300. See also White's "Competitive Payments Systems and the Unit of Account," *American Economic Review*, September 1984, pp. 699-712.

drawals (deposit or note conversions), whether due to seasonal swings in money demand or due to suspicion about the financial integrity of a particular bank.<sup>4</sup> Interbank competition operates to check the proliferation of this practice or its extension to the support of permanently unsound banking practices. Competitor free banks have no advantage in becoming permanent creditors to a failing bank.

#### *4. Free Branching and Diversification*

Under free banking there exist no artificial regulatory restrictions on the location or extent of bank branches nor any broader restrictions on the composition and management of bank balance sheets, on the types and forms of bank products and services, or on the ownership of banks. There are no artificial distinctions between banking and the securities industry, between commercial banks and savings banks, between banking and insurance, or between banking and commerce. Banks are free to practice the prudence of diversification, whether geographically or by product line. Free banking does not require government deposit insurance. Safety and soundness are promoted by decentralized reserve and liquidity management, by the obligation to uphold contracts, by the incentive to discount sound commercial paper, and by the freedom to practice geographic and portfolio diversification.

### **B. Why Free Banking Entails a Sound Banking System**

Having examined the pertinent characteristics of free banking, we next present a theory of this system's effect on the financial condition of the banking industry.

#### *1. Greater Capital Adequacy*

In theory, a free banking system would entail greater bank capital adequacy, measured in all its aspects, including the proportion of the banking system capital structure comprised of equity as opposed to debt, and the proportion of equity capital to assets. First, the reserves of a free banking system are decentralized and (by market preference) likely to be a nonfiat economic good such as specie.<sup>5</sup> Second, deposit contracts specifying the convertibility of bank notes and deposits into the market-adopted reserve are enforced and contract violations adjudicated. Bank depositors and creditors have access to judicial remedy and banks are not immune from bankruptcy laws, as under central banking. Finally, the money multiplier

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<sup>4</sup> Timberlake, Richard H., Jr., "The Central Banking Role of Clearinghouse Associations," *Journal of Money, Credit and Banking*, February 1974, pp. 1-15.

<sup>5</sup> King, Robert G., "On the Economics of Private Money," *Journal of Monetary Economics*, July 1983, pp. 127-162. See also Sargent, Thomas J. and Neil Wallace, "A Model of Commodity Money," *Journal of Monetary Economics*, July 1983, pp. 163-196.

under free banking is much lower (with less potential for monetary and credit inflation) than under central banking. To the extent reserves are fractional, those fractions are lower under free banking, as we discuss further in the analysis of system liquidity below. The full effect of these features is to restrain growth rates in the actual underlying level of market-determined reserves (specie production is not costless), as well as the attendant growth rates in the level of loans, bank notes and deposits. The level and growth rate of money and credit approximates more fully the natural growth rates and level of specie and other real economic goods. The absence of a politically directed base money monopolist operating with unrestrained, unscientific discretion to expand the supply of fiat money and credit via the banking system prevents expansion of the banking system balance sheet beyond economic necessity. Assets (reserves and credit) and liabilities (notes and deposits) are likely to grow in more constant proportion to the capital base of the banking system.

Not only are capital ratios more likely to be sustained under free banking, they also would tend to be higher in absolute proportion to loans and deposits. The absence either of a monopolist lender of fiat reserves as a last resort or of government guarantees of deposit liabilities would cause the banking system to employ a greater proportion of equity in its balance sheet. Depositors and creditors would have to be convinced of the financial integrity and strength of each bank and of the banking system and not rely solely on judicial remedies (which might be time-consuming and costly) against mismanagement and bankruptcy. Bank financial managers would have to rely on private capital, not on the artificially supplied “public” or quasi-capital made possible by a government guarantee of short-term bank liabilities.

Insolvent banks would not only be “allowed” to fail under free banking but would positively be closed down and liquidated in bankruptcy if they did not meet their contractual obligations to depositors or creditors. This too would enhance the capital adequacy of the banking system, by justly eliminating those unsafe banks that are by definition insolvent. The financial weakness of individual banks would not be artificially protected and institutionalized; the result would be greater capital adequacy systemwide.

The feature of free banking allowing free entry and exit in the industry without ownership or portfolio investment restrictions would also enhance the capital adequacy of the banking system by inviting capital from without and by permitting the termination of unprofitable operations from within.

## *2. Higher Quality and Greater Proportionate Liquidity*

The characteristics essential to free banking also are likely to enhance

the financial condition of the banking system by promoting higher proportions of liquidity and higher quality reserves. Reserves under free banking are decentralized. Each banking institution has the responsibility of maintaining reserve ratios adequate to meet contract provisions for deposit and note conversions and debt repayments. Banks are not permitted to break contracts arbitrarily, suspend convertibility, or defy creditors with impunity. With no safety valve other than intermittent interbank trading of reserves, and with no central bank as ultimate guarantor of liquidity, we would expect banks to be more liquid under free banking. The higher quality of reserves under free banking also enhances liquidity. Specie, the market-designated reserve, could neither be created nor destroyed at will, giving greater quality and stability to banking system liquidity.<sup>6</sup>

The lack of any government guarantee of demand deposits or artificial ceilings on deposit rates would raise the cost of demand deposits (*vis-à-vis* under central banking) and lead free banks to employ a lesser share of demand deposits and a greater share of time deposits, long-term debt, and equity in capital structures, all of which enhance liquidity. The asset side of the bank balance sheet also would be more liquid under free banking because loan maturities would be shorter, the creditworthiness of borrowers greater, and the quality of assets higher. This facilitates asset sales, improves the likelihood of receiving full repayment if loans are called in, reduces default risk, and minimizes interest rate risk.

### 3. Greater Asset Quality

Free banking's features also seem likely to promote greater asset quality in the portfolios of the banking system than under central banking. As discussed, free banks accept specie (or other tangible assets) of depositors in a free market; this practice alone provides a foundation of indestructible, preserved value in the bank portfolio not achievable (or permitted) under central banking. The market is not overridden in its recognition of specie as the ultimate form of liquidity and value. Specie is not representative of some other form of value and it cannot be created or destroyed arbitrarily. Specie is an asset, not a debt, as are central bank "notes."

Moreover, other assets of the banking system are likely to be of greater quality, including loans to individuals and enterprises, government securities, or equity and real estate investments. Loans are more likely to be short term, owing to normal production and trade cycles and the duration of deposits. The real-bills doctrine and the free bank commitment to uphold contracts and redeem deposits and notes for specie or other re-

<sup>6</sup>Taub, Bart, "Equilibrium Traits of Durable Commodity Money," *Journal of Banking and Finance* 9, 1985, pp. 5-34.

serves when due create a higher-quality asset portfolio as well as a more stable money supply.<sup>7</sup> Credit under a free banking system is more likely to be extended on the basis of real production and trade. A borrower from a free banking system must demonstrate a flow of income deriving from real production and trade, must present evidence either in the form of commercial paper or sales evidence commitments to receive income, in order to secure bank credit. Bankers are free to finance other riskier endeavors as they do under central banking, such as speculation or consumption or unprofitable production and trade, but they do so exclusively at their own risk. Free banking would not offer much hope for such imprudent lending. Longer-term assets are likely to be financed by longer-term deposits and capital or take the form of equity investments, not loans, due to their greater risk of return. Free banking insures not that bank loans and investments will always be repaid at a profit, but it does insure that banks have no other alternative but to go out of existence if their investment and lending policies are unsuccessful. Without access to a monopolist fiat money issuer to mask mistakes, banks would better scrutinize the business trade they finance and focus on sound extensions of credit. This would enhance the quality of bank portfolios.

Under free banking, the aggregate supply of credit is not determined by the government central bank but by the sum of all credit extended incrementally by individual banks making discrete credit judgments about individual borrowers. This is an important incentive to the creation of sound assets. The knowledge of individual borrower creditworthiness is not available to central bankers who focus on promoting aggregate levels of money and credit indiscriminately. Under central banking, crude, wholesale, aggregate additions and subtractions are made to the supply of money and credit without reference to microeconomic credit risks and standards. Under free banking, the microeconomic creation of money and credit is undertaken without reliance on some last-resort monopoly supplier. If lending mistakes are made under free banking, an individual bank or even a cluster of banks suffers, but the entire system does not deteriorate as under central banking.

Free banking based on market-determined specie reserves and the obligation of banks to redeem notes and deposits by contract also restrains inflationary growth in the money supply.<sup>8</sup> Indirectly, such monetary conservatism prevents increases in nominal interest rates. The inability of specie to go out of existence also guards against money and credit deflation

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<sup>7</sup> Humphrey, Thomas M., "The Real Bills Doctrine," *Economic Review*, Federal Reserve Bank of Richmond, September/October 1982.

<sup>8</sup> Sargent, Thomas J. and Neil Wallace, "The Real Bills Doctrine Versus the Quantity Theory: A Reconsideration," *Journal of Political Economy*, June 1982, pp. 1212-1236.

under free banking.<sup>9</sup> The result is lower and less volatile interest rates, which enhance the quality of asset portfolios in the banking system by virtue of lower interest rate risk.

The overall enhanced financial condition of banks under free banking also contributes to better credit ratings of banks themselves and hence a lower cost of capital. This enables free banks to attract a higher-quality, more creditworthy borrower with competitive interest rates on loans. This too enhances the quality of bank asset portfolios.

#### *4. Higher and More Stable Profitability*

Free banking is likely to entail higher and more stable profitability than banking under central government management. One obvious reason is that unprofitable, near-insolvent banks are not kept in business by a central bank through last-resort “lending” and deposit “insurance.” With more creditworthy borrowers under free banking, banks are more likely to preserve loan values, avoiding the need for the periodic liquidation and write-off of unsound loans indigenous to central banking. The diversification of loan portfolios made possible by free banking also is likely to minimize the risks of unsound loans and subsequent writeoffs that impair profitability. Free entry into other fields offering higher rates of return than banking and free exit from unprofitable areas also enhance the stability and level of banking system profitability in ways prevented under central banking.

#### *5. Prudent Bank Management*

Bank managers under free banking are likely to be more prudent and more conservative in their extensions of credit and their management of bank balance sheets. Their mistakes are not offset by access to a central bank, or indirectly, to taxpayer funds. They are likely to be better-trained, more-experienced credit analysts, more scrupulous judges of business conditions and practices, not mere money salesmen. Banks are not “affected with a public interest” as under central banking; with private money at risk and private self-interest in control, bank owners will demand the most able and experienced managers available. Bankers in a free system also are likely to extend credit for more-productive, less-consumptive or speculative purposes. Production loans provide their own source of revenue and income for repayment. Bank managers are more likely to promote savings and capital accumulation as the ultimate source

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<sup>9</sup>Of course the relative allocation of specie will change both within the domestic banking system and between countries in accordance with international trade flows. But just as banks that inflate beyond the confidence level of their depositors would lose reserves at the clearinghouse, so would countries whose banks inflated in the aggregate tend to lose specie to other countries. In either case there is a natural check against monetary inflation.

of new productive loans and investments because there is no reliance on fiat money creation as a source of credit expansion.

Free bankers have a distinct informational advantage over central bankers and regulators that promotes safer, more stable and efficient banking. Private bankers are more knowledgeable about local credit conditions because of their proximity to customers and their economic self-interest in providing profitable service. There is a division of labor in knowledge that cannot be achieved by political bureaucrats.

Free bank managers would be motivated to compete for the confidence of depositors and borrowers, stressing their own integrity, reputations, sound judgment, profits, and long history. Bank stock analysts and debt rating firms also provide the market with judgments of bank quality.

### C. Free Banking in Economics Textbooks

Our overview of the attributes and effects of a free banking system draws heavily upon recent scholarly research in the field. Readers should be aware, however, that for generations economics students have heard free banking summarily dismissed as chaotic and destructive. Typical was the treatment afforded free banking by MIT professor Paul Samuelson, whose introductory economics textbook has been used more than any other, by millions of students, in the last 4 decades. In the first edition of *Economics* (1948), Samuelson claimed that central banking was established in the United States because “the country was fed up once and for all with the anarchy of unstable, private banking.” Samuelson goes on in his chapter on money and banking:

“Certainly if one reviews the history of private, small scale nineteenth century banking, there is plenty of gloom to be found in it... All countries have long recognized that banking is one of those activities ‘affected with a public interest’ and in need of government control. They have created central banks, like the Federal Reserve System and the Bank of England, to correct the inherent instability of laissez-faire banking.... How is government action able to bring important change, without which our system of small unit banking would remain perilously unsafe?... The government can (and must!) use its *boundless emergency monetary powers* to avert collapse whenever a real financial crisis should arise.... Without government regulation and examination, without the Federal Reserve System, and without guaranteeing of bank deposits by the FDIC, our system of small unit banking would be intolerable.”<sup>10</sup>

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<sup>10</sup> Samuelson, Paul, *Economics: An Introductory Analysis*, McGraw Hill, New York (First Edition), 1948, Chapter 14.

Samuelson's vitriolic and emotional treatment of free banking lacked both theoretical rigor and empirical grounding, but the view nevertheless prevailed as gospel for decades. More recent editions of Samuelson's *Economics* do not even recognize the possibility of a system other than central banking. His enthusiastic, almost naive faith in the power and responsibility of the Federal Reserve in 1948, only a decade or more after its disastrous contributions to the 1930's banking collapse, is striking. Moreover, he fails to mention that "unit banking" was a government policy that severely restricted bank branching powers and destabilized the system.

Contrary to the Samuelson view, free banking is not "chaotic" or "unplanned" or destructive. It is a system that encompasses the plans of bank managers, borrowers, depositors, and investors in banks. A free banking system is devoid of planning by politicians, government bureaucrats, or "monetary statesmen." The choice is not "planning vs. chaos," but planning by politicians vs. planning by the market. Free banking is a system of laissez-faire money and credit governed by its own unique, practical, self-regulating principles, including the law of supply and demand, the law of bank-note reflux, market-determined interest rates, and economic self-interest as embodied in the profit motive. The system acts to perpetuate the prudent, the successful and strong banking institutions, minimizing the role played by the less-competent or dishonest ones.

## VI.

### THE HISTORICAL RECORD OF FREE BANKING IN THE UNITED STATES: STRENGTHENING THE COMMERCIAL BANKING INDUSTRY

#### A. Historical Overview

**F**OR approximately 75 years (1838-1913), the United States effectively operated without a central bank. Although the banking industry was not completely free of government intervention during this period, it was more so than at any other time in U.S. banking history.

In 1836 the Jackson Administration and Congress refused to renew the charter for the Second Bank of the United States, terminating the government bank and most Federal involvement in the banking industry. From 1838 to 1862 banks were chartered and regulated at the state level. This period usually is characterized as the “free banking era” of U.S. banking history because the politicized, often corrupt, system of incorporating banks under special acts of the legislature was replaced with a system of pre-established requirements, after the fulfillment of which a bank would automatically be granted a charter.

Appreciation for laissez-faire economics was so widespread at the time — and the public’s suspicion of government intervention in money and banking so great — that in 1837 President Andrew Jackson would write “now is the time to separate the Government from all banks. Receive and disburse the revenue in nothing but gold and silver coin, and the circulation of our coin through all public disbursements will regulate the currency forever hereafter. Keep the Government free from all embarrassments, whilst it leaves the commercial community to trade upon its own capital, and the banks to accommodate it with such exchange and credit as best suits their own interests — both being money making concerns, devoid of patriotism, looking alone to their interests — regardless of all others. It has been, and ever will be a curse to the Government to have any entanglement or interest with either, more than a general superintending care of all.”<sup>1</sup>

The free banking era was not laissez-faire banking but rather the state regulation of banking, free chartering, and the absence of any central bank monopoly on notes, reserves and aggregate-credit or any provision of government deposit insurance. The “freedom” of free banking was freedom of *entry* but not entirely of *operation*. Even entry was limited to

<sup>1</sup> Quoted in Bray Hammond, “Jackson, Biddle, and the Bank of the U.S.,” *The Journal of Economic History*, May 1947, p. 12.

Table 15  
STATES WITH AND WITHOUT FREE BANKING LAWS  
BY 1860

<i>States With Free Banking Laws</i>	<i>Year Law Passed</i>	<i>States Without Free Banking Laws</i>
Michigan .....	1837	Arkansas
Georgia .....	1838	California
New York .....	1838	Delaware
Alabama .....	1849	Kentucky
New Jersey .....	1850	Maine
Illinois .....	1851	Maryland
Massachusetts .....	1851	Mississippi
Ohio .....	1851	Missouri
Vermont .....	1851	New Hampshire
Connecticut .....	1851	North Carolina
Indiana .....	1852	Oregon
Tennessee .....	1852	Rhode Island
Wisconsin .....	1852	South Carolina
Florida .....	1853	Texas
Louisiana .....	1853	Virginia
Iowa .....	1858	
Minnesota .....	1858	
Pennsylvania .....	1860	

Source: Rockoff, Hugh, *The Free Banking Era: A Re-Examination*, Arno Press, New York, 1975, pp. 3 & 125-130.

some extent because more than a dozen states had no free banking laws or passed laws that prohibited banking outright. Free banking laws were passed in only 18 of the 33 states in existence at the time, and the laws were passed gradually over the period, not all at once.

With the onset of the Civil War and the government's need to finance it with a ready market for its securities, the National Bank Act was passed in 1863. This marks a second distinct phase of the free banking period, one that began to possess more features of central banking but that still was absent a central bank in the strictest sense. The chartering and regulation of banks at the national level was instituted, creating a "dual" banking system of state and national banks. The period from 1863 to 1913 is referred to as the "national banking era," although it retained many features of free banking.

Although there was no government bank or central bank during this second phase of free banking, the government did influence the money and banking sector through the financial dealings of the U.S. Treasury Department. In Phase I of free banking the Treasury influenced the banking system only so far as it passively used banks as depositories for its tax and expenditure accounts. In Phase II of free banking the Treasury in-

creased its influence on money, credit and the banking system somewhat by more active open-market purchase sales of its securities and by withdrawing and depositing funds with banks. The manipulation of Treasury deposits often was used to punish or benefit particular banks.

## **B. Free Banking in Practice**

A review of the empirical record of free banking's effect on the financial condition of the banking system is best achieved by dividing the 75-year period into two distinct phases. This division is based on the degree to which free banking characteristics dominated during each phase. In the first 25 years (1838-1862) banking was relatively less restricted, with state chartering and regulation of banking and the last 50 years (1863-1913) witnessed growing Federal regulation of banking but still no central bank.

### *1. Phase I (1838-1862)*

#### **a. Characteristics of the Period**

During this phase of free banking there existed no Federal Government intervention in banking, including no central bank with any money monopoly or lender-of-last-resort function, no Federal deposit insurance. State, but not Federal, regulation was in place. The banking system operated with decentralized reserves (with each bank holding its own reserves), typically specie or the specie-backed bank notes or deposits of other banks. The money supply consisted of specie in the hands of the public, private bank notes (currency) issued in the name of each bank, and to a lesser degree, bank deposits accessible by check. Noteholders and depositors had the right to convert their paper money into specie, the ultimate reserve that originally had been placed on deposit. Most free banking laws gave state governments the power to liquidate unsound banks or those that did not meet their contractual obligations. According to two banking historians, "failure on the part of banks to redeem even one note for specie meant that the state would close the bank and sell all of the assets deposited with the state auditor to pay off noteholders. In many cases noteholders had preference over other banks' creditors in terms of claims on the remaining assets of the banks."<sup>2</sup> Private clearing-houses were formed under free banking to exchange bank notes and reserves, primarily to overcome the limitations of anti-branching laws.

Bank loans were extended primarily to finance short-term trade and production, not consumption. Banks that issued too many bank notes and deposits in relation to their reserves, or that extended unsound credit, ran

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<sup>2</sup> Rolnick, Arthur J. and Warren E. Weber, "The Causes of Free Bank Failures: A Detailed Examination," *Journal of Monetary Economics*, November 1984, pp. 267-292.

the risk of adverse clearings at the clearinghouse and, if these persisted, of going out of business. The economic self-interest of more conservative competitors placed limits on the credit that would be extended to inflationary banks at the clearinghouse. There was no lender of last resort with an unlimited capacity to finance the mistakes of disreputable banks.

Although free banking is closely associated with more liberalized chartering, the system was not completely free of government intervention, manipulation, or irresponsibility during this period. In three important ways dubious government policy undermined the financial strength of some banks. These included regulations of asset composition, restrictions on branching, and laws overriding deposit contracts.

The most serious and destabilizing intervention was the provision of free banking laws that required currency-issuing banks to pledge state bonds as collateral, a form of asset regulation.<sup>3</sup> In order to begin operations, banks had to purchase state bonds in the open market, usually those of the state in which they were chartered, and deliver them to state banking authorities to be held as collateral. These bonds were supposed to be held for the benefit of depositors who would be receiving currency from the new bank in exchange for specie deposits. If a bank failed, the bonds were to be liquidated and the proceeds used to repay depositors. In fact, this rarely happened. As we will see below, many states simply permitted suspensions of convertibility without liquidating bonds. The bond collateral provisions were supposed to protect noteholders from losses but their principal effect was to give states an assured source of funding. Many banks were financially stronger than the states that were "guaranteeing" their notes, especially states located on the U.S. frontier. The bond collateral provisions had a number of damaging effects on the financial condition of banks. They restricted the portfolio composition of banks and forced them to hold state securities that often had been issued for projects of dubious economic value. In addition, since the available supply of state bonds (instead of the needs of production and trade) governed bank note issuance, the laws created an inelastic currency. Finally, bond-collateral provisions encouraged "wildcat banking" in financially weak states on the frontier. The laws were written to permit bank notes to be issued against the par value instead of the market value of state bonds. But the market value of bonds issued by financially weak states often were much lower than par. The unscrupulous took advantage

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<sup>3</sup> The original idea for such a scheme was advanced in Britain by David Ricardo in his *Proposals for an Economical and Secure Currency*, published in 1816. The evolution of this idea and its incorporation in U.S. free banking laws is carefully documented by Fritz Redlich in *The Molding of American Banking*, Johnson Reprint Corp., New York, 1968, pp. 191-196.

of this by purchasing bonds in the market at the low price and delivering them to the state auditors in turn for the right to issue bank notes against the higher face amount of the bonds. This circumstance simply encouraged fraudulent wildcat banking.

Anti-branching laws were equally destabilizing. No bank could branch into other states and even branching within states was restricted. According to one banking historian, anti-branching laws fostered two major problems. First, “they increased banks’ vulnerability by restricting their opportunities to diversify their portfolios.” In addition, “they raised the cost of redeeming notes. This hindered the development of an effective note-clearing system and created problems of note depreciation and over-issue. Banks of issue were smaller and more numerous, and their notes often found their way to other counties or states where they sold at discounts reflecting the high costs of redeeming them and the unfamiliarity of the banks that issued them. The high cost of redemption in turn reduced the frequency of redemption and relaxed one of the constraints against over-issue.”<sup>4</sup> Anti-branching laws also impeded the movement of capital and savings from the more developed Northern and Eastern states to the West, which further hindered the development of sound banking practices on the frontier.

The destabilizing aspects of these restrictions led to occasional specie suspensions by banks. But even here, state governments were irresponsible in not upholding deposit contracts. Free banking requires freedom from government intervention, but government does have a proper role in legislating against fraud and adjudicating contract violations. In such a role government simply recognizes (but does not violate) the rights of all parties to the contract: bankers, depositors, and borrowers alike. In some episodes during the free banking era, state legislatures and courts either required or sanctioned bank suspensions of specie convertibility.<sup>5</sup>

For example, a bill passed in Michigan on June 12, 1837 not only temporarily condoned bank suspensions of specie payments to depositors but prevented banks from demanding loan payments during the moratorium. Yet the depositors of a particular bank were not always the same as its borrowers. Although the rights of depositors as well as banks were violated in the process, the Michigan Governor at the time said that “a law to this effect would avoid the constitutional question of impairing the obligation of contract.” The suspension allowances, he said, “will give uni-

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<sup>4</sup> Dowd, Kevin, *The State and the Monetary System*, St. Martin’s Press, New York, 1989, p. 132.

<sup>5</sup> Hammond, Bray, *Banks and Politics in America*, Princeton University Press, Princeton, 1957, pp. 629-695.

formity to the circulating medium, and prevent any bank from discrediting the bills of another.”<sup>6</sup> In other words, reputable banks were not permitted to distinguish themselves from unscrupulous or incompetent banks.

Suspension laws were further defended on the grounds they prevented bank failures. In fact, they only prevented depositors from obtaining restitution from failed banks. Moreover, state bonds that had been pledged as collateral rarely were liquidated because states did not want to depress the value of their bonds in the market, an obvious result of widespread sales.

From a different perspective, the suspensions simply were the inevitable consequence of the government interventions discussed above: bond collateralization for bank notes and anti-branching. As one author notes, “under free banking laws, if a single noteholder protested that his notes were not redeemed on demand, the state banking authority was required to redeem all notes of the bank out of the proceeds from the sale of state bonds held in trust for the purpose. No wonder the banking system might prove unstable under pressure.”<sup>7</sup> But this was a defect of interventionism, not laissez-faire banking. The policy fostered financial imprudence. Banks could keep fewer liquid reserves if they were to be relieved of their contractual commitments to meet depositor withdrawals.

The relevance of these government-sanctioned episodes is that they introduced a destabilizing, central banking element into an otherwise free and self-regulating banking system. The evolution has been duly noted by economist Richard Timberlake, who writes that “monetary control arose primarily because the paper currency was not redeemable in specie. If it was not redeemable, the monetary system could not be self-regulating. If it was not self-regulating, someone had to regulate it — Congress ideally and constitutionally, but the Treasury department practically and realistically.”<sup>8</sup> Of course the paper currency of the free banking era *was* largely redeemable in specie; Timberlake was simply stressing the inevitable consequence (intervention) of permitting the convertibility obligation to be violated with impunity.

Despite these early government interventions and the gradual introduction of central banking elements over the following decades, the free

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<sup>6</sup> “Michigan Bill Suspending Specie Payments and Message from Governor Stevens Mason Recommending the Bill, June 12, 1837,” in H. Kroos and P. Samuelson, *Documentary History of Banking and Currency in the United States*, Vol. 2, 1983, pp. 1219-1226.

<sup>7</sup> Rockoff, Hugh, “Institutional Requirements for Stable Free Banking,” *The Cato Journal*, Fall 1986, p. 623.

<sup>8</sup> Timberlake, Richard, *The Origins of Central Banking in the United States*, Harvard University Press, Cambridge, 1978, p. 216.

banking era nevertheless represented the freest experiment in banking the United States has ever known.

### b. Banking System Financial Condition

Based on available evidence on capital adequacy, asset quality, liquidity, and profitability, the banking system as a whole was remarkably sound in Phase I of free banking.

#### Capital Adequacy

With the demise of the Second Bank of the United States and the removal of its inflationary bias, the banking system restored its capital adequacy in the first decade of free banking from 40.5 percent in 1836 to 55.1 percent in 1842, the greatest capital adequacy level and the swiftest rise in the entire history of banking. Not only was the magnitude of capital in the banking system greater than the 5 percent now typical of the industry, but there was no appreciable deterioration of banking capital adequacy.

On the contrary, as Table 16 shows, the capital ratio at the end of Phase I (1862) was higher than at its beginning (1836). No other era in banking history has witnessed an actual improvement in the financial condition of the industry. Under central banking, we observed the damaging effect that rapid loan and deposit growth have on bank capital adequacy. If bank balance sheets grow too rapidly, banks cannot earn sufficient profits to build capital and keep pace with loan and deposit growth. Central banking encourages this by lowering liquidity reserve ratios and thereby raising the money multiplier. It then pumps excessive (in relation to real economic output) amounts of reserves into the banking system, ballooning its balance sheet. On the other hand, we observe here that free banking does not expand loans and deposits beyond the sustainable growth rate of capital. Profits are sufficient to support the system without dimin-

Table 16  
**CAPITAL ADEQUACY, 1836-1862**  
 (Dollars in Millions)

Year	Capital	Assets	Ratio	Year	Capital	Assets	Ratio
1836	\$ 252	\$ 622	40.5%	1850	\$ 217	\$ 532	40.8%
1838	318	682	46.7	1852	237	620	38.2
1840	358	658	54.4	1854	301	795	37.9
1842	260	472	55.1	1856	344	880	39.1
1844	211	427	49.4	1858	395	849	46.5
1846	197	456	43.2	1860	422	1,000	42.2
1848	205	512	40.0	1862	418	1,012	41.3

Source: *Historical Statistics of the United States Through 1970*, Series X580-87.

Table 17  
**LIQUIDITY, 1836-1862**  
 (Dollars in Millions)

Year	Cash	Deposits	Ratio	Year	Cash	Deposits	Ratio
1836	\$ 129	\$ 306	42.2%	1850	\$ 115	\$ 277	41.5%
1838	119	262	45.4	1852	137	343	40.0
1840	99	227	43.6	1854	163	444	36.7
1842	82	172	47.7	1856	167	461	36.2
1844	104	192	54.2	1858	170	392	43.4
1846	95	231	41.1	1860	196	517	38.0
1848	112	272	41.2	1862	221	541	40.9

Source: *Historical Statistics of the United States through 1970*, Series X580-87.

ishing capital adequacy. Since liquidity reserve ratios were approximately 40 percent (Table 17) and largely comprised of specie and sound, liquid paper, the theoretical money multiplier was only 2.5 $\times$ . This enabled the industry to expand its balance sheet in concert with the expanding economy, not at growth rates higher than its growth in profits and capital.

#### Bank Failures and "Wildcat Banks"

As we discovered in the early economics textbooks of Paul Samuelson, free banking often has been condemned as a disastrous economic experiment. The main charge leveled against free banking is that it encouraged so-called "wildcat banking." Such banks were named for their tendency to be located in remote areas, for the purpose of discouraging noteholders from redeeming their notes in specie. Also criticized was the alleged confusion caused by the outpouring of different currencies, which supposedly disrupted commerce and hindered economic development. Monetary and banking historians in the past 15 years have begun to question these assumptions.<sup>9</sup> Theoretical and empirical investigations of laissez-faire systems of money and banking have since grown voluminously (see bibliography).

The reinterpretation of the free banking era generally has attributed wildcat banking and instability to government regulation and control of banks, not to market incentives. In addition to requiring that state bonds be purchased and deposited with the banking authorities, free banking laws also permitted bank notes to be issued for the full par value of the bonds. Yet this legal price was not necessarily equal to the market price. According to Rockoff, "if the legal price exceeded the market price by more than the costs of printing the approved volume of bank notes plus

<sup>9</sup> Hugh Rockoff of Rutgers University appears to be the first economist and historian to explore this field in any scholarly way, as opposed to the standard anecdotal accounts. His initial contribution was "American Free Banking Before the Civil War: A Re-Examination," *Journal of Economic History*, March 1972.

the discounts those notes would bear, it paid entrepreneurs to set up banks which held no reserves in specie, since the banks would be profitable even if they collapsed after the notes were put in circulation.”<sup>10</sup>

The quick profits that could be gained, and that always look attractive to the “fly-by-night” operators of any era, represented the difference between the value of state bonds acquired (at a low market price) and the value of bonds used as a basis for note issuance with the state banking auditors (at a higher face amount). For such a bank to go into “business,” it merely had to issue, as quickly as possible, all of its newly approved notes in exchange for real values (usually specie). Meanwhile, recipients of the notes (depositors of specie) had no idea they were backed by bonds with market values far below the face amount of the bank notes. They were told not to worry, for the state government was preserving the value of the bank notes.

In fact, the opposite was occurring. The “bankers” would flee with the specie. Not surprisingly, the loophole was exploited most in states that had poor financial records and hence, with bonds trading at discount in the market. These states were not eager to close the loophole because it would mean they would lose a financing source. In effect, the bond collateral provision, promoted as a way to protect unsuspecting depositors from frauds carried out by financially unsound or dishonest banks, led to wildcat banks and the defrauding of depositors by financially unsound and dishonest state governments.

The following illustration suggests how such laws provided incentives for wildcat banks. A potential banker with \$50,000 in capital (specie) by law had to purchase state bonds with this capital and deposit the bonds with the state auditor. In exchange, the state would print \$50,000 bank notes in the name of the new bank. The banker would put his notes into circulation by exchanging them for specie deposits by customers, or by loans or additional purchases of state bonds. Below is the balance sheet of a free bank that purchased and pledged the bonds of a financially sound state. There is no built-in profit from the collateral used, since its par value equals its market value.

**Balance Sheet of the Free Bank**

(For state bonds, market value equals par value.)

Assets		Liabilities	
State bonds	\$ 50,000	Notes in circulation	\$ 50,000
Loans or specie	<u>50,000</u>	Capital	<u>50,000</u>
Total	\$100,000	Total	\$100,000

<sup>10</sup> Rockoff, Hugh, “American Free Banking Before the Civil War: A Re-Examination,” *Journal of Economic History*, March 1972, p. 418.

Wildcat banking was encouraged by financially unsound states that would value the bonds securing bank notes at par value, when the bonds actually were selling in the market at a discount, below par. According to Rockoff, "a state benefited from making its bonds the backing for its currency by way of lower interest charges on its debt."<sup>11</sup> States apparently were not unaware of the fact that their bonds traded at discounts. They knowingly approved the issuance of bank notes in excess of bond market values to unscrupulous swindlers with little or no reputation as bankers of ability or integrity. States had no monopoly power to print money. When revenues from taxation were exhausted, borrowing was the only alternative.

In short, there was clear motivation for states to elevate the value of their bonds, especially if they were at a discount. By purchasing discounted state bonds, wildcat banks could make a quick and easy profit. Using his same initial capital of \$50,000 the would-be "banker" could buy state bonds that had depreciated 50 percent, deposit them at the state auditor's office and receive \$100,000 (par value of the bonds) in new bank notes. The notes would be put into circulation in exchange for real assets (specie deposits of unsuspecting "customers" or loans to "friends" of the bank who could use the notes to purchase real goods). Having circulated the notes, the wildcat banker would flee. Receivers of notes would be defrauded by the extent of the discount of the state bonds, for their liquidation would not bring full restitution. When the fraud of a wildcat bank finally was discovered, its vaults were devoid of specie, but it was due to central banking-type interventionist incentives. The balance sheet below is shown prior to the "banker" fleeing with specie. The notes in circulation will be repaid only 50 cents on the dollar, with the liquidation of state bonds.

**Balance Sheet of the "Wildcat Bank"**  
(For state bonds, par value exceeds market value.)

Assets		Liabilities	
State bonds	\$ 50,000	Notes in circulation	\$100,000
Specie	<u>100,000</u>	Capital	<u>50,000</u>
Total	\$150,000	Total	\$150,000

As disreputable as were wildcat banks, historians have found that they were not very often associated with bank failures in the free banking era. Bank failure rates themselves were low compared to those reported under central banking. Recently, historians have found that free bank failures, to the extent they occurred, were attributable not to fraudulent behavior but

<sup>11</sup> *Ibid.*

almost exclusively to decreases in state bond prices that occurred after banks had purchased them for collateral.

In a study of free banking in New York, Indiana, Wisconsin, and Minnesota, Arthur Rolnick and Warren Weber found that only 7 percent of bank failures were attributable to fraudulent motivations (wildcat banking). They discovered strong correlation between falling bond prices and bank failures.<sup>12</sup> In another study, the two authors found that nearly 80 percent of free bank failures occurred during the relatively short periods when state bond prices were falling.<sup>13</sup> In either case, wildcat banking appears to have been a function not of laissez-faire banking but of government intervention in banking and the long historical pattern of government's need to capture a market for its bonds.

In their study of the various free banking experiments, Federal Reserve economists Rolnick and Weber have found that contrary to conventional exaggerations of the period, free bank failures were not numerous, free banks were in business for relatively long, not short periods, and free bank noteholders did not experience significant losses due to free bank failures.<sup>14</sup> New York had the largest, freest system and bank notes were based on the market value, not par value, of state bonds. Only 8 percent of New York banks failed from 1838 to 1863 and the expected value of a dollar in bank notes in that state never fell below \$0.99. Even for those New York banks that failed, noteholders received almost 75 cents on the dollar. Rockoff has estimated that total losses suffered by holders of free bank notes during this era totaled only \$1.8 million, or less than 1 percent of the average total of bank obligations of \$4 million. "By 1860, noteholders had probably lost less through the failure of free banks, including the wildcats, than they stood to lose that year from a 2% inflation."<sup>15</sup> Clearly, the textbooks of Samuelson and others have relied on sensationalist and anecdotal evidence to condemn free banking as "anarchic." Moreover, until recently the more probable sources of problems that did occur under free banking — *i.e.*, government interventions — were never fully investigated.

Hugh Rockoff has found that most of the wildcat banking stories passed down through the years followed closely on the heels of the specie suspension adopted by Michigan in 1837. He writes that "The first free

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<sup>12</sup> Rolnick, Arthur J. and Warren E. Weber, "Free Banking, Wildcat Banking and Shimplasters," *Quarterly Review*, Federal Reserve Bank of Minneapolis, Fall 1982, pp. 10-19.

<sup>13</sup> Rolnick, Arthur J. and Warren E. Weber, "The Causes of Free Bank Failures: A Detailed Examination," *Journal of Monetary Economics*, November 1984, p. 288.

<sup>14</sup> Rolnick, Arthur J. and Warren E. Weber, "New Evidence on the Free Banking Era," *American Economic Review*, December 1983, pp. 1080-1090.

<sup>15</sup> Rockoff, Hugh, *The Free Banking Era: A Re-examination*, Arno Press, New York, 1975.

banking law was adopted in March 1837 in Michigan. Shortly after its passage, Michigan suspended specie payments following the panic of 1837.<sup>16</sup> This set up a unique situation in which one could establish a bank and issue notes, but without the legal requirement of immediate convertibility. Perhaps 40 banks were set up under these conditions, many of rather dubious affairs. Banking historians have been strongly influenced by tales of wildcat banking from this episode, although they have tended to neglect the suspension of specie payments that facilitated the establishment of new banks."<sup>17</sup>

Rockoff's investigations also show that states with sound free banking laws (New York, Ohio, Louisiana) produced sound banking systems; states with free banking laws that refused to adjust bond security regulations to reflect bond discounts or that failed to uphold contracts by refusing to punish specie suspensions (Michigan, Indiana, Minnesota, Wisconsin, Illinois, New Jersey) produced unsound banking systems and some wildcat banks. States in which free banking laws set the legal price of eligible bonds far below the market price or that did not have a large supply of bonds available (Massachusetts, Iowa, Pennsylvania, Alabama, Florida, Georgia, Tennessee, Vermont) restricted the full development of banking.<sup>18</sup> The remaining states that simply outlawed banking (and all states, to the extent they prohibited branching) disrupted the efficient allocation of bank capital and prevented the formation of a national, integrated banking system.<sup>19</sup> Government intervention in banking, even at this early date, proves instructive, although few people then drew the right conclusions. Bond collateral provisions that based note issue on par values encouraged wildcat banking when state bonds traded at a discount, and discouraged any kind of banking when the bonds traded at a premium. Despite these impediments, on balance the free banking experience was a favorable one.

### Asset Quality

Banking practice in this phase of free banking was dominated by the "real bills" doctrine as banks restricted their lending primarily to the dis-

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<sup>16</sup> It is widely recognized that this panic resulted not from free banking but from the disinflation that followed from discontinuing the Second Bank of the United States.

<sup>17</sup> Rockoff, Hugh, "Institutional Requirements for Stable Free Banking," *The Cato Journal*, Fall 1986, p. 622.

<sup>18</sup> *Ibid.* See especially, Appendix D: Case Studies in free banking, pp. 94-130. In Massachusetts no free banks were established until 1859, even though a free banking law was passed 8 years earlier. Rockoff shows that bonds of the state traded at par value or at a premium to par during this period. As a result, the bonds were scarce and banks were priced out of the market.

<sup>19</sup> *Ibid.*, pp. 50-65.

counting of short-term commercial paper issued in connection with the production and trade of real underlying goods. Not all goods financed were of soundest quality, but individual banks, not the system as a whole paid the price for those mistakes. According to one banking historian, "in all areas the preferred loans were commercial loans par excellence — that is, loans to merchants and dealers in commodities, mostly for short terms, possibly secured by the goods themselves. In the great commercial centers, such as New York and New Orleans, many banks could operate almost entirely on such safe and liquid credit. In the North, bank credit was extended abundantly to manufacturing, particularly production loans of less than 12 months' duration."<sup>20</sup>

Consumption loans were not made to any great degree. Such credit was extended to customers by merchants, who were indirectly financed by banks. There existed a natural check on such lending. Merchants were more knowledgeable about the debt capacity and purchasing patterns of their customers than banks could be. Not until the central banking era did banks begin lending directly, and nearly without limit, to consumers. In the free banking era, banks financed manufacturers, wholesalers and retailers, not consumers. Furthermore, the successful bank financed such enterprises out of savings and capital, not out of demand deposits. The most extensive deterioration in asset quality occurred as a result of government intervention; for example, the state bond collateral requirements discussed above that proved disastrous.

### Liquidity

Banking system liquidity was far greater in this phase of free banking than under central banking, a consequence of conservative management practices as well as the legal commitment to meet note conversions and deposit withdrawals with specie redemption. The absence of either a monopolist lender of last resort or deposit insurance meant banks had to manage their own liquidity. There was no unlimited safety valve of reserves, as we have today. However, as discussed, states and courts did not always uphold contracts to redeem notes. Liquidity ratios may well have been even higher without branching restrictions, which made it cumbersome for noteholders or depositors to redeem at will. Not merely liquidity ratios but the quality of liquidity was greater than under central banking. Reserves were a real, indestructible, market-chosen good — specie, or other specie-backed bank notes and deposits.

Of significance is the fact that liquidity did not deteriorate during this pure first phase of free banking, a deterioration we have come to expect

<sup>20</sup> Trescott, Paul B., *Financing American Enterprise: The Story of Commercial Banking*, Harper & Row, New York, 1963, p. 35.

as characteristic of central banking. In 1862 the liquidity ratio was 40.9 percent, as it had been in 1836. Decades earlier defenders of a national bank cited the "shortage of specie" as a reason for expanding paper money. Under the free banking era, the California gold rush of 1848 resulted in a vast outpouring of specie; yet the banking system did not expand injudiciously on the growing reserve base.

### Profitability

Statistics on free banking profitability are not exhaustive, but it is possible to make some general observations. Bank profits as a percentage of capital in New York, Boston and Philadelphia from 1849-59 ranged between 6.18 percent and 9.52 percent.<sup>21</sup> With capital ratios of approximately 40 percent during this period (or an asset turnover of 2.5×) we can infer that return on total assets ranged from 2.47 percent to 3.8 percent, well above profit rates achieved under central banking.

Profitability under free banking can be deciphered in other ways. Supplements to the capital base of the banking system could only come from retained profits or the capital contribution of partners and public investors. We know that the capital ratio of the industry did not deteriorate over Phase I of free banking, a 25-year period. In fact \$166 million was added to capital, a result of profits retained annually and additional capital contributions. Whatever the relative composition of these two components, profits must have been more than satisfactory, both to supplement existing capital and to attract sufficient additional capital. This contrasts with central banking, in which both retained profits and public equity investment are insufficient to supplement the capital base adequately and keep pace with loan and deposit expansion.

### Bank Management

Banks in this period were careful to practice conservative lending and as a rule a moral and practical commitment was made to meeting depositors' requests for specie redemption. Failure to operate in this way meant certain bankruptcy. There was no government safety net to reward imprudence. For the sounder banks, lending was primarily short term and tied to real production and trade; some banks resorted to longer-term or more speculative lending for public projects, primarily as a result of political pressure to do so.<sup>22</sup> Fritz Redlich, a banking historian who has focused his research on the ideas and philosophies of banking theorists as

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<sup>21</sup> Rockoff, Hugh, *The Free Banking Era: A Re-examination*, Arno Press, New York, 1975, p. 52.

<sup>22</sup> Hammond, Bray, *Banks and Politics in America*, Princeton University Press, Princeton, 1957, pp. 674-687.

well as practitioners, describes the majority of 19th century bankers in favorable terms. They were prudent, experienced and well-respected in their profession and in the business community broadly. They often had their own capital at risk, and their integrity was beyond reproach.<sup>23</sup>

Under free banking creative methods were introduced to circumvent the costs of anti-branching laws, such as private clearinghouses, the first of importance being the New York Clearinghouse, formed in 1853. In New England the Suffolk Bank disciplined competitors' note issue function by establishing sophisticated systems of clearing and presenting notes to issuers. Inflation was checked and note discounts minimized.<sup>24</sup> According to one study by economist George Trivoli, "the Suffolk System was a free enterprise regional bank clearing system which operated with great success from 1825 to 1858, and which created lasting benefits for New England's economy." Moreover, Trivoli concludes, the system demonstrates "the feasibility of a private gold-related banking system which might well eliminate the necessity for a government-operated central bank."

Even the U.S. Comptroller of Currency at the time had to admit that "private enterprise could be entrusted with the work of redeeming the circulating notes of the banks, and it could thus be done as safely and much more economically than the same services can be performed by government."<sup>25</sup> Elsewhere in the country, the specie price of individual bank notes varied slightly depending on the location and financial condition of the issuing bank. Aside from clearinghouses and the Suffolk system, the market's response was a system of private brokers who exchanged bank notes for specie and published currency prices in "bank note reporters." Today their counterparts are bank rating agencies. Counterfeits were also made known. Specie-paying banks would trade at or near par.<sup>26</sup> "Most bank notes traded at small discounts from par, discounts that decreased over time, perhaps as a result of improvements in transportation and communication." In 1858 discounts ranged from a meager 0.5 percent to 3.5 percent.<sup>27</sup>

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<sup>23</sup> Redlich, Fritz, *The Molding of American Banking: Men and Ideas*, Hafner Publishing, New York, 1951.

<sup>24</sup> Mullineaux, Donald J., "Competitive Moneys and the Suffolk Bank System: A Contractual Perspective," *Southern Journal of Economics*, April 1987, pp. 884-898.

<sup>25</sup> Trivoli, George, *The Suffolk Bank: A Study of a Free Enterprise Clearing System*, Adam Smith Institute, London, 1979, pp. 5 & 28.

<sup>26</sup> Dillistin, William H., *Bank Note Reporters and Counterfeit Detectors, 1826-66*, Numismatic Notes and Monographs 114, New York, American Numismatic Society, 1949.

<sup>27</sup> Rockoff, Hugh, "The Free Banking Era," *Journal of Money, Credit and Banking*, May 1974, p. 144.

Arbitragers and speculators entered the banking field primarily in states where fraudulent behavior was promoted by government regulations and inducements, such as issuing bank notes based on the par, not the discounted market value of its bonds, or in states where branching restrictions or outright prohibitions of banking were predominant. States in which regulations promoted and sanctioned banking fraud attracted, not surprisingly, swindlers. States with fewer restrictions, note issues based on bond market values, and those with bonds that retained their value over time (New York, New England) developed, again not surprisingly, sound banking systems.

Most banks had enviable management records in the free banking area. It has been noted of the Northern and Eastern banks that banks "were able to maintain such a good performance because they were in the more developed regions where the shortage of capital was not such a desperate plight and where banks could find plenty of low-risk, short-term commercial loans. Environment as well as managerial prudence contributed to their longevity."<sup>28</sup> In these regions, banks did not try to, or have to, "create" capital with issues of paper money and deposits. Bond collateral regulations were not so onerous because state finances in these regions were more conservative, and their free banking laws did not designate par values of state bonds as the basis for bank note issues.

On the other hand, "unstable banking moved with the frontier. There the demand for credit was linked to investment in fixed capital, which often combined high potential productivity with high risk."<sup>29</sup> In these regions banks lent paper money, not accumulated real capital or savings.

## 2. Phase II (1863-1913)

### a. Characteristics of the Period

The National Bank Act of 1863 brought Federal Government intervention in the banking industry, although state regulation was retained, creating a two-level regulatory structure. Banks continued to be responsible for holding their own reserves including specie and specie-backed notes and deposits of other banks. In this respect there still was free banking, with no central banking monopoly of reserves. The National Bank Act, however, regulated bank note issues by mandating that they be uniform in appearance and that they be backed by collateral consisting of U.S. Treasury securities. As with state bond collateral requirements, this was primarily a way for government to create demand for the significant volume of securities it issued to finance the Civil War. As with state banking

<sup>28</sup> Trescott, Paul B., *Financing American Enterprise: The Story of Commercial Banking*, Harper & Row, New York, 1963, p. 23.

<sup>29</sup> *Ibid.*

regulations, the National Bank Act's collateral requirement regulated bank portfolio compositions, created an inelastic currency and hurt banks that held bonds that traded at a discount or that were likely to be defaulted. The costs of such intervention were similar to those that had occurred at the state level.

The requirement that notes be uniform in appearance with "U.S. Treasury" printed on them for the first time had the effect of removing the distinguishing characteristics of each bank's notes that had enabled note-holders to determine their legitimacy. The Act also levied a burdensome 10 percent tax on private bank notes still in existence. By doing so, the Federal Government took a major step toward the monopolization of currency because for the first time it waged a campaign against alternative, private currencies.

The Act also imposed a destabilizing scheme to centralize and pyramid reserves by segregating the industry into "central reserve city banks," "reserve city banks," and "country banks." By promoting a pyramid of reserves, the Act promoted the inflating capacity of the banking system, a precursor of the central banking period. Banks in major cities were to keep reserves of 25 percent while other banks throughout the country kept reserves of 15 percent. Country banks were told to include deposits in city banks in their definition of reserves. This feature of the Act introduced an element of illiquidity in the banking system and led to a series of panics, bank runs, and specie suspensions in 1873, 1893, 1897, and 1907.

The National Bank Act promoted illiquidity, but not insolvency. Banks simply were not permitted to accommodate changes in customer preferences for money holdings as reflected in their note-to-deposit ratios.<sup>30</sup> Fluctuations in the demand for currency in various parts of the country could not be accommodated under such an unsound structure. The problem was especially acute when seasonal, interregional changes in currency demand due to agricultural harvests and shipments could not easily be met. Moreover, after the Civil War the Federal Government began reducing and redeeming its outstanding supply of bonds to prepare for a resumption of specie payments in 1879. In itself this was a prudent policy, except that the National Bank Act had tied private bank currency issue to the supply of such bonds. Even after resumption was successfully achieved, government debt declined such that bank currency decreased 60 percent from 1881 to 1890.<sup>31</sup> The inelasticity of the currency, and the occasional bank panics that ensued, probably were deficiencies of inter-

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<sup>30</sup> Smith, Vera, *The Rationale of Central Banking*, P. S. King & Son, London, 1936, pp. 128-146.

<sup>31</sup> *Ibid.*, p. 131.

ventionism, not of laissez-faire banking.<sup>32</sup> Instead of dismantling the reserve pyramid scheme of the National Bank Act, however, central banking was instituted in 1913, creating a government monopoly on currency and reserves (the base of the inverted pyramid). The Federal Reserve Act then reduced the base through much lower reserve requirements than had existed even under the risky structure in place under the National Bank Act.

Phase II of free banking included more elements of central banking than had Phase I, but there still was an absence of any lender of last resort or Federal deposit insurance. Moreover, bank currency still circulated with the name of private banks, so the economy was not forced to use only one brand. The use of specie and specie-backed currency still was legal, and circulated widely. Anti-branching laws continued in place, however, with national bank laws no more liberal than state bank laws had been.

#### b. Banking System Financial Condition

With the introduction of more central banking elements in Phase II of free banking, there arose growing bank instability and some hint of deterioration in the financial condition of the industry.

#### Capital Adequacy

By sanctioning an inverted pyramid of reserves and undermining the prudence and conservatism in banking mandated by a free market, the National Bank Act lowered reserve ratios by nearly half in only 20 years, from 42.4 percent in 1864 to 21.6 percent in 1884 (Table 20), increasing the theoretical money multiplier from 2.4 $\times$  to 4.6 $\times$ . The result was an expansion in loans and assets faster than the rate of growth of bank capital. Because the National Bank Act had taxed state bank notes out of existence and began eliminating most of the distinguishing characteristics of bank notes of national banks, deposits became a growing proportion of the money supply, from 66 percent in 1863 to 96.7 percent in 1914. By introducing checking deposits, banks were solving the problem of inelasticity imposed by the bond-collateral provisions of the Act. However, a greater use of deposits and a rising deposit multiplier meant that the inflating capacity of the banking system was enhanced. These were the apparent consequences of introducing central banking characteristics into the system. As a result, bank capital adequacy fell by more than half, from 34.1 percent in 1863 to 16.5 percent in 1914, just after the formation of

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<sup>32</sup> Chari, V. V., "Banking Without Deposit Insurance or Bank Panics: Lessons from a Model of the U.S. National Banking System," *Quarterly Review*, Federal Reserve Bank of Minneapolis, Summer 1989, pp. 3-19.

Table 18  
**CAPITAL ADEQUACY, 1863-1914**  
(Dollars in Millions)

Year	Capital	Assets	Ratio	Year	Capital	Assets	Ratio
1863	\$ 412	\$1,209	34.1%	1890	\$1,558	\$6,358	24.5%
1866	560	1,673	33.5	1893	1,781	7,192	24.8
1869	616	1,736	35.5	1896	1,746	7,554	23.1
1872	748	2,145	34.9	1899	1,907	10,679	17.9
1875	847	3,205	26.4	1902	2,473	14,026	17.6
1878	826	3,081	26.8	1905	3,066	17,511	17.5
1881	864	3,869	22.3	1908	3,627	19,946	18.2
1884	1,036	4,221	24.5	1911	4,133	24,026	17.2
1887	1,259	5,193	24.2	1914	4,503	27,349	16.5

Source: *Historical Statistics of the United States Through 1970*, Series X580-87.

the Federal Reserve. Despite a trend toward greater central banking elements, the banking system's capital ratios were more than triple the 5 percent level seen today.

#### Bank Failures

In general bank failures were not widespread in this second phase of free banking, never approaching more than 1 percent of total banks (Table 19). Suspensions of specie redemption were sanctioned by courts in 1873, 1878, 1893 and 1908. Yet the effect of such "panics" was not detrimental to the banking system, at least in terms of failure rates. Panics were evidence of inelastic currency, an illiquidity that was fostered by bond security regulations, not by market-oriented reserve management.

As expected, interregional differences in bank failure rates reflected the relative freedom of banks. Failure rates were higher in the West, where nominal, not real, capital was lent (due to branching restrictions preventing movement of capital from the East and North) and par value

Table 19  
**BANK FAILURE RATES, 1870-1914**  
(Percent)

Region	1870-1891	1891-1904	1904-1914	1870-1914
New England	0.065	0.197	0.134	0.120
Middle Atlantic	0.225	0.176	0.212	0.195
South	0.428	0.727	0.110	0.429
Middle West	0.456	0.442	0.144	0.390
West	0.936	1.678	0.209	0.982
Pacific	0.335	1.423	0.140	0.571
<b>Average</b>	<b>0.407</b>	<b>0.774</b>	<b>0.158</b>	<b>0.448</b>

Source: Rockoff, Hugh, "Regional Interest Rates and Bank Failures, 1870-1914," *Explorations in Economic History*, January 1977, p. 92.

bond collateral regulations were in place. Sound free banking laws in New York, New England and Ohio produced a better result. Of relevance also is the actual improvement in the failure rate from the beginning of the period to its end.

It should be noted how the record of bank failures under free banking compares with bank failure rates under central banking. In the early 1930's banking collapse, 35.6 percent of all banks failed in a 4-year period due to central banking mismanagement. In the 1980's, bank failures represented 6.2 percent of total banks that began the decade.

### Asset Quality

Banks still operated primarily under the principles of the real-bills doctrine and consumption loans were the exception. As specie still was a sound and market-accepted reserve, bank asset quality was enhanced. As with the state bond collateral requirement, however, asset quality in banking deteriorated in this period as a consequence of national bond portfolio regulations. Southern banks required to hold Confederate bonds, for example, were harmed by the outcome of the Civil War.

### Liquidity

The introduction of central banking elements in this phase of free banking severely undermined the liquidity of the banking system. The liquidity ratio fell from 41.3 percent in 1863 to 22.9 percent in 1914. Still, absolute liquidity levels at the end of the period (22.9 percent) were twice as great as levels currently maintained under pure central banking (10.7 percent).

### Profitability

Public markets for bank equity still were not well developed in this

Table 20  
LIQUIDITY, 1863-1914  
(Dollars in Millions)

Year	Cash	Deposits	Ratio	Year	Cash	Deposits	Ratio
1863	\$ 307	\$ 743	41.3%	1890	\$1,123	\$4,702	23.9%
1866	480	1,068	45.0	1893	1,190	5,220	22.8
1869	418	1,101	38.0	1896	1,266	5,685	22.3
1872	490	1,332	36.8	1899	2,382	8,671	27.5
1875	527	2,327	22.6	1902	2,855	11,412	25.0
1878	493	2,221	22.2	1905	3,455	14,217	24.3
1881	782	2,962	26.4	1908	4,043	16,053	25.2
1884	678	3,144	21.6	1911	4,842	19,541	24.8
1887	999	3,886	25.7	1914	5,125	22,387	22.9

Source: *Historical Statistics of the United States through 1970*, Series X580-87.

phase of free banking, so profits were a major source of supplements to the capital base. As we saw, the capital base deteriorated in relation to assets in this phase. This is not to suggest a drop in bank profit rates. Instead, asset growth rates were far in excess of what ever could be achieved in profits, as a consequence of the introduction of central banking features. Still, rates of return were adequate and fairly stable during this second phase of free banking. In more developed regions such as New England and the Middle Atlantic states, profit rates were lower than in the South and West; anti-branching restrictions impeded the interregional allocation of bank capital, preventing any natural equalization of returns.

Given the relatively lower leverage of this period, returns on capital (Table 21) suggest relatively high rates of return on assets as well. From capital ratios in Table 18 we can estimate the degree of leverage and the profits being made on assets. For example, capital ratios from 1870-1891 averaged 30 percent. Stated alternatively, asset turnover, the link between return on assets and returns on capital, was 3.3x. Hence a return on assets of 3.15 percent during 1870-1891 would yield the return on capital of 10.39 percent shown in Table 21. Likewise, we can infer that return on assets was 1.56 percent in the period of 1891-1904 and 1.72 percent in the period of 1904-1914. As rough as these estimates may appear, profitability was significantly higher in this phase of free banking as compared to profitability rates under central banking. As we showed earlier in Table 14, the banking industry has not earned more than 1 percent on its assets for many years under central banking.

### Bank Management

On the whole, prudence continued to govern the management of banks in this phase of free banking. This was the age of America's Industrial Revolution and banks played an important role in financing such new industries as steel, textiles, food processing, railroads, petroleum, utilities

Table 21  
RETURN ON CAPITAL, 1870-1914  
(Percent)

Region	1870-1891	1891-1904	1904-1914	1870-1914
New England	6.99	5.32	7.26	6.57
Middle Atlantic	8.09	8.25	8.88	8.28
South	9.90	8.48	10.50	9.59
Middle West	9.94	7.76	9.21	9.09
West	13.63	8.12	13.55	12.02
Pacific	13.78	8.64	11.64	11.70
<b>Average</b>	<b>10.39</b>	<b>7.76</b>	<b>10.17</b>	<b>9.54</b>

Source: Rockoff, Hugh, "Regional Interest Rates and Bank Failures, 1870-1914," *Explorations in Economic History*, January 1977, p. 92.

and communications. The rise of the corporate form of organization meant a greater reliance on stock and bond issues for long-term funding. Banks began purchasing these securities or lending against them as collateral.

According to one banking historian, rural banks in the post-Civil War period “were not a major source of mortgage farm credit. Even when such mortgages were made, it was for no more than three or five years and at high rates ... commercial banks were more directly involved in making short-term production loans to farmers.... To many bankers (and quite a few economists from Adam Smith down) such commercial loans seemed the epitome of good banking. They were safe, short-term and liquid, and they meshed closely with the essential operations of production and distribution. A terminology grew up reflecting this attitude — such bills of exchange were said to be bona fide, relating to legitimate transactions. Loans outstanding at national banks in 1867 had an average maturity of about seventy days.”<sup>33</sup>

This philosophy of lending — conservatism, prudence, a concern with financing production instead of consumption — contrasts dramatically with the lending policies dominant today under central banking.

### C. Money, Credit and the Business Cycle (1838-1913)

#### 1. Money and Credit

Under free banking, private banks, not a central bank, were primarily responsible for the state of money and credit. Empirical investigation reveals that money retained its purchasing power well in the 75 years of free banking, in sharp contrast to the loss of 90 percent of its value under the same time frame of central banking.<sup>34</sup> Bank failures occurred under free banking, but the magnitude of the loss experienced by depositors and noteholders does not appear to have been significant. Whatever its magnitude, it certainly did not approach the 90 percent loss suffered under central banking.

Since credit was primarily extended by banks in a decentralized fashion, with no central “management” over credit aggregates by government authorities attempting to artificially lower interest rates and expand credit, free banking did not suffer periods of massive unsound credit expansion and liquidation such as central banking experienced in the 1930’s and

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<sup>33</sup> Trescott, Paul B., *Financing American Enterprise: The Story of Commercial Banking*, Harper & Row, New York, 1963, pp. 92-95.

<sup>34</sup> Welker, Edward P., “How Safe Is Your Bank?,” *Economic Education Bulletin*, September 1987, American Institute for Economic Research. Welker based purchasing power on the Wholesale Price Index issued by the U.S. Labor Department.

1980's. Instability in the free banking period took the form of wildcat banking, periodic specie suspensions and liquidity crunches. These were more localized than systemic, preventing any prolonged industry-wide deterioration. More importantly, they resulted from interventions, not from a free market in banking.

## *2. The Business Cycle*

Theory suggests that under free banking business-cycle swings would be narrower than under central banking, due to the fact that reserve ratios are higher, the money multiplier (and contractor) is therefore lower, and the reserves themselves (based on specie) are not created by fiat but tied to real output. In fact, the 75 years of free banking from 1838 to 1913 seem to be characterized by cyclical swings in business activity and output of far narrower dimension than we have suffered in this century of central banking. Financial "panics" occurred, but usually were decades apart and shortlived; they were associated primarily with the inverted pyramid of centralized reserves scheme mandated by the National Bank Act in the post-Civil War period. This was a quasi-central banking scheme.

By all measures of economic achievement, whether measured by output, employment, interest rate and price stability, or general living standards, the 75 years of free banking witnessed unprecedented economic advance. The purchasing power of money at the end of the free banking phase was comparable to that of the beginning. The era witnessed not only the origins but the rapid development of every major industry that comprises our current manufacturing base, including textiles and apparel, agriculture, machinery, gold production, railroads and telecommunications, oil and gas, steel, chemicals and automobiles. Free banking coincided with unprecedented (and as yet unmatched) advances in savings, capital accumulation, employment, real wages and income. The free banking systems of the 19th century were inextricably linked with the achievements of the Industrial Revolution, not some chaotic hindrance to economic development.

## *3. The Evolution of Free Banking*

It is unfortunate that the 75-year period of free banking was not characterized by a growing appreciation of laissez-faire banking and an extension of its benefits throughout the economy. Instead, the weaknesses of the money and banking system, primarily engendered by interventionism, were blamed on private banking. Each new crisis of interventionism served to justify new interventions, a pattern whose drawbacks have become so familiar in this century. Yet the achievements of free banking, to the extent it was permitted to exist, are undeniable. They serve as an example of what could be achieved today if we were to restore it.

## VII.

### ALTERNATIVE VIEWS OF BANKING INSTABILITY: DEREGULATION, MANAGEMENT INCOMPETENCE, AND FRAUD

**F**EW theories have been offered to account for the financial deterioration we have seen in the U.S. commercial banking industry in this century. This is due in part to the failure of many even to recognize the deterioration, but also to the general reluctance of economists to theorize or collect evidence on anything other than the most narrow and abstruse controversies. If there is concern, it is centered on the financial standing of individual institutions or the likelihood of large bank failures. Some of the more common explanations for such failures are weakness in the economy, mismanagement, or fraud. But as we discuss in greater detail below, these theories describe only the more obvious and proximate reasons for bank failure. They ignore the more basic question of whether particular institutional arrangements, such as central banking, actually tend to promote economic instability, mismanagement, and fraud. Moreover, few have argued that these factors are so widespread as to be an underlying source of prolonged and widespread deterioration in the entire industry. Rather, the main culprit they have pointed to is the alleged "deregulation" of the 1980's.

#### Deregulation

In the past decade deregulation has been the most-frequent explanation given for widespread bank failure. But to blame deregulation for banking system deterioration is an unwarranted attempt to resurrect the fallacy that free banking is inherently unstable. That this charge is repeated even today when we have a banking system thoroughly infused with unstable central banking features, is remarkable. Central banking has squeezed out so many of the remnants of free banking that by now even the last vestiges of that system, private ownership and operation, are being undermined. If the advocates of regulation are correct, we will have to adopt full, statist socialized banking before free elements in banking will ever be permitted to escape blame. But, of course, there will be no free banking to turn to when that happens.

The commercial banking and savings and loan industries in the United States remain the most regulated sectors in the economy. The only regulatory relief banks have received in the past decade has been a greater freedom to pay higher interest rates on deposits (a cost, not a profit), and to open a few additional branches. Savings and loan associations also have been allowed to raise the costs of their deposits and to try to recapture

these costs by diversifying their loan portfolios beyond home mortgages. For the most part, these freedoms were not “permitted” out of any desire by politicians to strengthen the banking system, but simply to forestall the collapse of some of the unsound institutions within it. Ceilings on interest rates were lifted only after they had led to massive disintermediation. Branching restrictions were relaxed only when hundreds of banks collapsed in unit banking states such as Illinois and Texas. Interstate mergers and acquisitions have been permitted only rarely and for similar reasons — as a salvage operation, and with only the faintest recognition of what sound banking requires. In New England, interstate banking was opposed for years (with the necessary assistance of the Massachusetts legislature) by The Bank of New England — opposition that was coincidentally dropped only a month before that same bank announced massive losses and its need to sell parts of the bank to institutions outside of the region. In Texas, out-of-state banks such as NCNB, Bank One, and Chemical Bank finally were given the “freedom” to enter the state. Was this freedom used, as the advocates of reregulation would say, to destabilize the system? No, it was the freedom to bail out the regulators who had no money to resolve the bank failures in their jurisdiction. It was the same “freedom” permitted earlier in the decade, when Citicorp purchased three failed S&Ls in California, Illinois, and Florida. In all these cases the regulators were not intent on deregulating the banking system; they were trying to save their jobs and the insolvent banks from the disastrous consequences of government intervention. There is good reason to believe that by such a policy government is attacking symptoms, not the disease. After each of these isolated patch-up jobs, government made no attempt to lift the controls, to widen or accelerate the freedom to branch or merge that is so necessary if the banking system is to avoid continued deterioration.

When we consider the massive regulation that remains imposed on banking, we must question the motivation of those who contend that deregulation is the source of our banking problems. Perhaps the interventionists hold the same view as Senator Hitchcock, who we heard defend central banking in Chapter IV on the grounds that “we believe in government control, real and actual, all the time....” Would the interventionists deny that significant regulatory restrictions on lending and branching remain? More importantly, would they deny that government continues to monopolize money, to mandate a perverse system of deposit insurance, to create lax regulatory accounting, and to bail out wherever necessary, the incompetent and dishonest banks in its capacity as lender of last resort? Some say it is more accurate to say that “partial” deregulation is to blame, that given a taste of freedom, banks have exploited it, and deserve no further. But why are the vast, remaining destabilizing elements of regula-

tion and intervention never cited, while the few, recent marginal freedoms are condemned? Can the critics of deregulation justifiably maintain that banks are in trouble because, to a very limited extent, they now are able to open additional branches, cross state borders, pay interest on deposits, and diversify their portfolios? The position evades facts. These are sound banking practices, not destructive ones. The banking system is in trouble not because of sane management policies but because of the tremendous, confounding interventions that persist and codify bad management: because the government money monopoly forces monetary inflation onto bank balance sheets, because government deposit insurance pays banks that take wild risks and taxes banks that take prudent ones, because “regulatory accounting principles” are a fraud and an unprincipled cover-up for the insolvent, and because the government discount window bails out banks when the destruction and the failures and the cover-ups no longer can be hidden. The chaos and destruction resulting from statist interventions in banking are indeed a problem — but instead of teaching us the proper lesson, they are the very things cited by the interventionists to justify further intervention.

### **Management Incompetence**

A widely publicized study issued by the Comptroller of the Currency in June 1988<sup>1</sup> concluded that mismanagement and fraud were the main causes of banking failure. The report recommended that regulators (including the OCC) increase their surveillance of the industry and intervene more directly in the management of banks. It called for an expanded definition of what constitutes criminal behavior on the part of bankers. Since the report was released, the OCC has made numerous private and public announcements to banks about proper credit standards, government-approved lending practices, and “recommendations” about which industries (such as real estate) to scrutinize more closely.

Is mismanagement to blame for deterioration in the banking system? There is no doubt that bank managers are neither omnipotent nor omniscient — but neither are the managers in any other industry. Why would the banking industry, aside from all others, be so prone to mismanagement? In its basics, banking is not a very difficult business. Under free banking there is no reason why banks could not attract good management, yet this seems to be a problem under central banking. Moreover, banking mismanagement tends to occur in clusters under central banking. There also appears to be an erosion in bankers’ credit skills under central banking, some built-in mechanism in our banking system that fosters

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<sup>1</sup> *Bank Failure: An Evaluation of the Factors Contributing to the Failure of National Banks*, Comptroller of the Currency, Washington, D.C., 1988.

imprudence. There are parallels that can be drawn with other industries. We have seen management weakness in industries such as utilities, telecommunications, and postal service. They have one thing in common — they are characterized by significant government intervention and regulation. Some are in the process of being freed. But we do not blame MCI for the mismanagement that resulted from decades of government intervention in phone service, or Federal Express for the chronic failures of government postal management. It is government monetary mismanagement, not the actions of particular banks, that has inflicted harm and disorder on the widest scale and magnitude on the banking system. Central banking not only makes it difficult to manage but rewards mismanagement. The proliferation of poor bank management and failed banks does carry a message, but it is that government is the problem, not the solution. Government only makes bad banking flourish and then rounds up the usual suspects in order to divert attention from its own failings, justifying still further interventions.

## Fraud

Fraud and dishonesty are not responsible for banking system instability, but in many ways they are promoted by central banking. Even in the free banking era, when there was no systemic instability, wildcat banks were set up by frauds who took advantage of the banknote guarantee systems mandated by financially unsound state governments. Similarly in our own time, but to a much greater extent, frauds and cheats have taken advantage of the deposit guarantee system, this time mandated by the Federal Government. In either case we should not be surprised that a government that guarantees the liabilities of an entire industry invites the incompetent and the fraudulent. A liability is a promise to deliver some value and if a system is set up that removes the responsibility for delivering on that promise, those who are basically irresponsible are sure to be attracted to it. Fraud is only the proximate, not the underlying source of banking instability. Moreover, bank failure has been widespread in the absence of fraud. In the 1930's, one-third of all U.S. banks failed in a system-wide collapse and yet no economist has ever demonstrated that this catastrophe resulted from banker dishonesty or fraud. On the contrary, Friedman and Schwartz have convincingly shown that government intervention in the monetary system was culpable for the collapse.<sup>2</sup>

Not only does fraud fail to account for widespread banking system deterioration, but no theory has adequately considered why fraud would be on the rise during some periods of banking history and not others. There

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<sup>2</sup> Friedman, Milton and Anna Schwartz, *A Monetary History of the United States, 1863-1960*, Princeton University Press, Princeton, 1963, pp. 299-324.

is nothing inherent in banking or those who make it their profession that would invite fraud. Embezzlement is difficult to commit and few studies have shown it to be widespread. “Insider loans” to uncreditworthy borrowers who are friends of bank management or have related business interests are unsound, but are not widespread — although bank regulators have made them seem so. To account for bank failures they should have foreseen, regulators tend to blur the distinction between the insider loans that predictably go bad and the merely bad loans made to borrowers whom the bank has a responsibility to know well.

A basic problem is that central banking institutionalizes unsound and dishonest banking, increasing the likelihood that incompetent, dishonest bankers will be found amidst the rubble of bank failures. Monetary inflation by the central bank is the most significant form of this institutionalized dishonesty. Government deposit insurance and “regulatory accounting” are schemes to mask the instability it breeds. For years, bank regulators have purposefully hidden the financial condition of unsound banks by resorting to fraudulent “regulatory accounting” practices. Regulators repeatedly refuse to make available to the public the names on its “problem banks” list. Congressmen in Washington are resigning or face scrutiny because they routinely intervene on the part of fraudulent, insolvent banks in their districts to protect them even from the lax regulators. Meanwhile there are repeated calls for an “easy” central bank monetary policy and a constantly booming economy in which the capable bankers appear virtually indistinguishable from the incompetent, the dishonest, and the merely lucky. All these policies are inherent to central banking and tend to attract the incompetent and the dishonest into the industry. In effect, a profligate government uses the central bank to get something (real resources, the next election) for nothing (paper Federal Reserve notes) and then expresses shock that crooks looking for the same bargain get into the banking system. A system of central banking does not insure integrity and reputation in banking — it undermines it by protecting, supporting and institutionalizing fraud.

In sum, there is a great paradox in the conventional arguments “explaining” banking system deterioration. We have persistent government intervention undermining bank safety — and the charge that deregulation is the problem. We have government creating a chaotic monetary environment and rewarding imprudence — and the charge that banker mismanagement is to blame. We have government stealing and hoarding gold, cheating creditors and money holders via chronic inflating, covering up bad banking with lax “regulatory accounting” — and the charge that bankers are fraudulent and dishonest. In a free banking system mismanagement and fraud are minimized, and when they occur those harmed

by such banks can turn to the courts for justice and remedy. But under central banking, mismanagement and fraud are basic components of government policy. They are promoted in the banking system and institutionalized by the regulatory framework. And by its very design, central banking harms an extensive number of people who can turn to no one, certainly not to government, for justice or remedy. The Federal Reserve is the 20th-century equivalent of wildcat banking, but on a scale unimagined by the pikers of a century ago.

## VIII.

### THE BASIC PURPOSES OF CENTRAL BANKING AND FREE BANKING

**O**UR study indicates that central banking has not been successful in bringing stability to the banking system, while free banking has a much better track record in this regard. Yet despite this failure and the fact that central banking is defended as a stabilizing mechanism, it continues to grow in power and influence. In this chapter we suggest that this may be so because central banking has evolved for quite a different purpose, one that is inherently at odds with stability in the banking system. First, we summarize our findings.

#### Summary of U.S. Banking History

We have examined the basic characteristics of central banking and free banking and demonstrated their very different effects on the financial condition of the commercial banking system throughout U.S. history. During more than 75 years of central banking in this country (1913-present), the capital ratio of the banking industry fell almost continuously from 17 percent to 5 percent. In addition to this underlying deterioration, central banking brought about a system-wide collapse of banks in the 1930's and has promoted further instability in recent decades. Today the banking system operates under very thin capital cushions, with problem banks and insolvencies proliferating daily. Over the same decades of central banking, liquidity ratios fell from almost 23 percent to 10 percent. Meanwhile asset quality deteriorated as loan portfolios became increasingly stocked with nonperforming loans extended to ever-poorer credit risks.

In order to forestall the liquidation of unsound credits, to bail out failed banks, to lower interest rates artificially, and to stimulate the economy, the Federal Reserve has continued to create ever-greater supplies of reserves and has continued monetary inflating — a policy that helped bring about the nonperforming loans, the bank failures, the higher interest rates, and the economic disruption to begin with. During the central banking era, money lost 90 percent of its purchasing power. On top of all this, central banking also has encouraged the proliferation of management incompetence and fraud in the industry.

The history of free banking in the United States presents us with a much better picture. In the 25 years of free banking in this country, capital ratios were substantially higher and more prudent than those achieved under central banking. Bank capital adequacy was not only greater during the free banking era, but actually improved over the period, from 40 percent in 1836 to 41 percent in 1862. Liquidity ratios also were much

healthier, in excess of 40 percent, or more than four times greater than ratios under central banking. Under free banking asset quality was higher, since real savings and capital (not the creation of fiat paper reserves, as under central banking) were the underlying source of lending and investment. The purchasing power of money under free banking, linked as it was to gold and to free market currency, retained its purchasing power for decades. Finally, bank managers were more conservative and prudent; incompetence and fraud tended to occur wherever government intervention was greatest.

Under central banking in the United States, the chronic inflation of money and credit beyond the rate of real economic output has expanded bank balance sheets to the breaking point. But as more and more banks show signs of breaking, the Federal Reserve only inflates further, while banking regulators bail out (nationalize) the broken banks directly. Since money and credit are centralized under central banking, mismanagement has widespread and damaging effects. Moreover, mistakes are more likely when government planners are in control, for they cannot have the knowledge and do not have the incentives required to make the best economic decisions. The result is that the entire banking system continues to weaken.

On the other hand, in a system of free, decentralized banking, an individual bank that is mismanaged or that inflates its notes, deposits, and loans beyond real economic production and its specie reserves, means bankruptcy for that individual bank but not of the entire system. In fact, the very threat of such a result encourages sound banking practices and minimizes the likelihood of individual bank failures. Competitive factors under free banking force overly expansive banks to slow their growth and when failures do occur, the banks go out of existence. A widespread malinvestment of money and credit is avoided. This natural check on the overexpansion of money and credit is completely eliminated under central banking, as banks throughout the system are encouraged to inflate their loans and deposits virtually without limit.

### **Controls Breed Controls**

The historical record of banking in the United States provides many good reasons to question the conventional wisdom that central banking stabilizes an otherwise chaotic private banking system. Not only has banking been much less stable under our central banking era but the more limited instability of our freer banking periods can be traced to the early intervention of central banking features. Yet the power of central banking in the United States has grown with every new misinterpretation of the historical record, powers that are defended by central banking advocates who count on the unwarranted assumption that banking instability re-

flects free market failure. The history of U.S. banking and the growth of central banking show how government controls breed further controls. The weaknesses of the free banking era (wildcat banking, limited branching, heterogenous note issues) actually were the result of government intervention in banking, but the solution proposed was not to eliminate the intervention but to nationalize the note issuing function through the National Bank Act. The weaknesses of the national banking era (an inelastic money supply, liquidity panics) were actually brought about by this further government intervention, yet the solution proposed was not to repeal the intervention but to nationalize the management of reserves through the Federal Reserve Act. The weaknesses of central banking (the rapidly depreciating purchasing power of money, financial market volatility, an unstable banking system) also are encouraged by interventionism, but the solution offered today is to extend the power of the Federal Reserve and of bank regulators, to bail out and nationalize banks, and to regulate bank lending policies more closely.

### **The Purpose of Central Banking**

Banking historians have yet to untangle this paradox in which the system exhibiting the poor track record (central banking), in spite of its failure, continues to expand and flourish. To understand this paradox we must reconsider the effective purpose of central banking. In part central banking grew because its advocates alleged a market failure where none existed, but it also grew with the expansion of statism.<sup>1</sup> To the extent that government operated beyond its means, it needed the financial support available from central banking powers and not obtainable in a free market. For most of U.S. history, the expansion of central banking occurred when government needed to finance wartime expenditures; but in recent decades, central banking powers have grown to support an expanding welfare state and to finance deliberate Keynesian policies of deficit spending.

Political expediency has been so closely associated with the rise of central banking that the scientific objectivity of economists who have studied banking instability often has been sacrificed. For years, economists claimed that central banking was the means by which government disciplined an otherwise profligate and chaotic free market in banking. They said central banking prevented banking panics and banking failures, that it smoothed business cycles and fought inflation, that it controlled the money supply and interest rates, that it insured full employment and guaranteed ever-expanding economic output.

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<sup>1</sup> Glasner, David, *Free Banking and Monetary Reform*, Cambridge University Press, New York, 1989. Chapter 2, "Money and the State," describes how central banking has been established to support government.

But many economists have shown that the exact opposite is true.<sup>2</sup> In its fullest capacity, central banking has been the primary means of financing the growth of government. The central bank is more than just a “banker’s bank,” it is the banker to unlimited government, an agent that “monetizes” the government’s growing supply of debt and guarantees a market for it where none would otherwise exist. Central banking is not required by governments that live within their means. Central banking is a political instrument of government that increases the money supply and interest rates beyond free market levels, inflates, creates booms and speculations resulting in busts and bankruptcies, distorts market price signals, and obstructs employment and production.<sup>3</sup> Our own study shows that central banking also undermines the financial condition of the banking system.

The United States has not been the only country in history to suffer the growth of central banking in tandem with the expansion of government intervention and deficit spending. Charles Goodhart, for many years chief economist at the Bank of England, is one prominent advocate of central banking who has recognized the *de facto* purpose of the system. In his book, *The Evolution of Central Banks*, Goodhart presents a historical survey of the origins and practices of ten central banking systems worldwide, including the Federal Reserve. He shows that central banking was always and everywhere established either to support unlimited and financially unsound governments or to bail out unsound government-sponsored private banks. Goodhart’s history confirms that political expediency, not the correction of “market failure” or the practice of sound banking, was a primary consideration driving the evolution of central banking. Goodhart differs from previous supporters of central banking in that he concedes this purpose and does not openly condemn free market banking. He justifies central banking not as a necessary correction of market failure, but as a natural extension of government sovereignty.<sup>4</sup>

The evolution of central banking shows that, in effect, a major purpose has been to support governments that spend more money than they are willing or able to levy in taxes on the populace. Governments can engage in such deficit spending only by borrowing money from the market, by printing it, or both. Without the assistance of a central bank, profligate governments cannot successfully borrow money from an unreceptive

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<sup>2</sup> Willett, Thomas D., Editor, *Political Business Cycle: The Political Economy of Money, Inflation, and Unemployment*, Duke University Press, Durham, 1988.

<sup>3</sup> Von Mises, Ludwig, *The Theory of Money and Credit*, Liberty Classics, Indianapolis, 1981. Von Mises is the most prominent exponent of the “Austrian” school of economics, which generally defends free banking and criticizes the inherent instability and political motivations of central banking.

<sup>4</sup> Goodhart, Charles, *The Evolution of Central Banks*, MIT Press, Cambridge, 1988.

market or issue bad currency in competition with other sound banking institutions. They can execute these policies only by establishing a political institution not susceptible to market forces and empowered to override them — a central bank. As Goodhart has shown, many governments established central banks expressly for this purpose.

In other cases they did it indirectly by rescuing mismanaged private banks that were susceptible to failure because they were the main lenders to government. Governments found these banks indispensable and when they were deemed too important to fail they were nationalized and gradually transformed into full-fledged central banks. We have seen in the United States that central banking features were introduced gradually, first in wartime and then in peacetime, with every resulting instability cited as justification for still further extensions of central banking power. The scope of central banking power in the United States expanded most when government expanded most.

If we recognize that a basic purpose of central banking is to support financially unsound governments, not to correct free banking failure or uphold sound banking practice, we can see why it must necessarily undermine the stability of the private banking system. Given its close alliance with profligate government, central banking is hardly in a position to give private bankers a lesson in prudent management practices. Central banking, the alleged protector of safety and soundness in the banking system, actually undermines it. Our banking system is unsound because our money is unsound, but our money is unsound because a profligate and uncreditworthy government simultaneously forbids others to issue sound money and forces its own monopolized and unsound money onto the market through the central bank. This is not to say that creditworthy governments could do a better job of managing money and banking — such governments do not *need* a central bank. Central banking evolved for the benefit of unlimited government and at the cost of obscuring the favorable historical record of free banking. Yet the relationship persists in which an expanding government requires central banking and central banking permits the continued expansion of government.

### **The Purpose of Free Banking**

Contrary to central banking, the purpose of free banking is to facilitate trade and finance production at a profit. It is a system whose operation is grounded in economics, not politics. The intermediation of money and credit is based on the beneficial motivation of private self-interest and if, as Adam Smith observed, bankers lend prudently on sound commercial transactions and “are subjected to the obligation of immediate and unconditional payment of bank notes as soon as presented, their trade may, with

safety to the public, be rendered in all respects perfectly free.”<sup>5</sup> Banks in such a system are left free to operate on the basis of voluntary contractual arrangements. Government’s only proper function is to prevent and punish fraud and to enforce contractual arrangements, not to foster frauds or abrogate and regulate the terms of contracts. Banks are not obligated to assist the government in its financing requirements; but if they choose to do so, they and their creditors and depositors would bear full responsibility for such decisions.

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<sup>5</sup> Smith, Adam, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776, Modern Library, New York, 1937, p. 313.

## IX.

### MONEY AND BANKING REFORM: THE TRANSITION FROM CENTRAL BANKING TO FREE BANKING

**I**F the objective of monetary and banking policy is to promote a private, stable, financially sound system of money and banking, both theory and historical evidence suggest that our current central banking structure is inadequate. In our view, serious consideration should be given to adopting a system of free banking. Although numerous reform proposals are being offered today to address problems in the banking system, many of them deal with symptoms and not with the root of the problem — central banking itself. For example, reformers quite correctly lament excessive risk-taking, low capital ratios, and growing bank failures. But without some understanding of what it is that encourages this systemic instability, the evidence is misinterpreted and the “solutions” that are offered (more interventionism) only make a bad situation worse. This kind of mistake has been made repeatedly throughout U.S. banking history and there is no reason to continue making it. Below we examine weaknesses in the reforms currently being adopted. We then conclude with a reform program of our own that incorporates many of the free banking elements we have discussed.

#### **The Federal Reserve**

Other than free banking economists, few people today are seriously questioning the legitimacy of the Federal Reserve’s monopoly on money creation, despite its damaging consequences. In fact, the trend has been toward granting the agency virtually unlimited discretion in conducting monetary and banking policies. With the encouragement of politicians and inflationists, the Fed went off the gold standard domestically in 1934 and internationally in 1971. Money supply growth has far exceeded the growth in real output and the resulting disruptions to the banking system in particular and the economy in general have been significant. Keynesian economists continue to call for more of the same: inflationist policies and the active manipulation of interest rates and exchange rates. Monetarists call for less central bank discretion and fixed rules of conduct, but due to a constantly changing economy their policy targets never seem to be accurately identified. And as a result of political considerations, the targets are never met even when they are identified. Supply-side economists have called for a return to the Bretton Woods system in which the Federal Reserve proved itself totally incapable of managing an international gold standard. Legislation was passed in Congress in the 1970’s that required the Federal Reserve to report periodically on its assumptions, policies,

and growth targets for the money supply. The Federal Reserve has refused to do so since 1986. More recently, the Joint Economic Committee of Congress tried to pass legislation to make the Federal Reserve less “independent” and more receptive to political pressures. The bill called for the Secretary of the Treasury to join the Federal Reserve Board and for every new President to appoint his own Federal Reserve Chairman.

If we consider the proposals of the most prominent economists, we see recommendations for *how* the Federal Reserve should conduct itself, not whether central banking itself is a legitimate part of a market economy. If we consider the recommendations of the most powerful politicians, we see calls for an ever more political central bank. In either case, the fundamental difficulties with central banking are not addressed. Only when we recognize that a chief purpose of central banking is to support unlimited government and not to stabilize the economy or the banking industry will we understand the futility of coaching the institution to do something it is neither capable of nor interested in doing.

### Capital Adequacy Regulations

Bank analysts and regulators have recognized, quite correctly, the extensive deterioration in bank capital ratios that has occurred, especially in this latest phase of central banking. Unfortunately they have not identified central banking as a major influence in the deterioration. Instead, bank analysts tend to blame “unreceptive” equity markets for banks, while regulators complain of the sheer obstinance of bank executives who for some reason prefer to live on the edge and simply refuse to raise the capital ratios of their institutions. Since at least the 1950’s, bank regulators have implored bankers to maintain capital adequacy and when this approach failed they offered regulatory “forbearance” by refusing to penalize the banks for operating on ever thinner capital margins.

More recently, the Federal Reserve, the FDIC, the Comptroller of the Currency, and central banks worldwide (through the Bank for International Settlements) established capital adequacy rules that simply mandate existing capital ratios or require ratios higher than many banks are able to achieve. These new regulations not only fail to attack the root of the problem, they do something much worse by adding yet another intervention. Referred to as “risk-based capital” requirements, they establish explicitly a system of political credit allocation by specifying a detailed schedule of assets categorized by risk from which the banks are to calculate their required capital. On its face the scheme seems well-intentioned, for it is common knowledge by now that banks are engaging in excessive risk-taking given their slim equity ratios. But as our study suggests, they are doing so with the encouragement and sponsorship of the central bank-

ing environment in which they operate, not because government bureaucrats have failed to teach the bankers how to manage their risks properly.

Heretofore, central banking has largely been involved in controlling the *aggregate* level of money and credit; now risk-based capital regulations promise to introduce more detailed government control over the *composition* of bank credit in the economy, still without curing capital inadequacy. The government actively has begun to designate what risks must be associated with certain types of loans and certain industries.<sup>1</sup> Instead of opposing this intervention, bankers for the most part have complained that the categories of risk designated by the government are too few and the regulations not sufficiently detailed to cover all known risks. As we have indicated earlier, government is hardly in a position to make sound credit judgments. Economists from every perspective have criticized the inefficiency and futility of government intervention in the allocation of credit; such intervention leads to the politicization of credit decisions and, not surprisingly, to even more reckless lending. As evidence, we need only point to the billions of dollars that have been lost in such credit programs as the Farm Credit System, the Small Business Administration, the Federal Home Loan Bank System, the Community Reinvestment Act, and the Government Student Loan Association.

In some respects, this new system of credit allocation is something we have seen before. A careful examination of the new regulations shows that while the government assigns a risk weighting of 10-100 percent (the amount of capital that must be allocated to a loan) for various private sector loans and investments, it assigns a risk weighting of *zero* for its own securities. In this way, banks do not have to have any capital to the extent they lend to the government. Of course, this is nothing less than a modern version of the old state bond and national bond collateral provisions seen in the 19th century. The need today for the U.S. Government to expand the demand for its securities is particularly understandable with budget deficits of more than \$100 billion per year and the national debt exceeding \$3 trillion. But the new capital rules will have little to do with insuring bank capital adequacy. Banks that are deficient in capital now may become significant holders of government securities because of the regulatory bias and favoritism the securities have been granted.

### **Deposit Insurance**

For more than a decade, economists have shown that a system of government deposit insurance encourages banks to operate with less capital,

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<sup>1</sup> For a skeptical view of these proposals, see Janice Moulton, "New Guidelines for Bank Capital: An Attempt to Reflect Risk," *Business Review*, Federal Reserve Bank of Philadelphia, August 1987, pp. 19-33.

promotes excessive risk-taking in lending practices, rewards reckless banks that pay the same fixed premiums as other banks, and penalizes more prudent banks that must continue paying premiums into the deposit insurance fund as it is depleted by failed banks.<sup>2</sup> Others have shown that the system reduces the incentive of depositors and other market-based monitors to assess the condition of banks, at the same time that it increases the chance of bank failures.<sup>3</sup> Finally, because it promotes such widespread imprudence, government deposit insurance necessarily brings with it the need for greater and more intrusive bank regulation.<sup>4</sup>

Current deposit insurance reform proposals do not incorporate any of this economic research. In a recent policy paper on deposit insurance reform, the FDIC cited some of these studies but concluded that instability in the banking system was the result of "imprudent decisions by a handful of financial institutions."<sup>5</sup> The paper, titled "Deposit Insurance for the Nineties: Meeting the Challenge," asks Congress for a massive increase in the power of the FDIC, including an exemption from any Federal budget constraints on staff expenditures, as well as power to terminate coverage for some banks, to control and approve bank lending decisions, to impose risk-based premiums, to enhance "supervisory discretion," and to borrow from both the Department of Treasury and the Federal Reserve. The importance of this last request can be seen by the fact the FDIC fund fell from \$18 billion to \$14 billion in 1988, a trend made more ominous by the fact that the fund of the FSLIC, in need of a recent \$250 billion taxpayer bailout, had been as high as \$6 billion in the early 1980's. The FDIC's call for risk-based deposit insurance premiums threatens banks with the same intervention built into the capital regulations discussed above. Notable also is the FDIC's explicit rejection of market-based solutions to the problem. According to the study, "attempts to increase depositor discipline would increase the threat of financial instability and bank runs." The FDIC is willing to risk anything but a failed bank, even if it means the government literally taking over the private banking system.

Some economists have advocated the use of private deposit insurance. Such proposals fail to recognize that government deposit insurance is not

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<sup>2</sup> Kane, Edward, "Appearance and Reality in Deposit Insurance: The Case for Reform," *Journal of Banking and Finance*, 1986, pp. 175-188. See also, Isaac Ehrlich and Gary Becker, "Market Insurance, Self Insurance, and Self-Protection," *Journal of Political Economy*, July/August 1972, pp. 623-648.

<sup>3</sup> Short, Eugenie, "Bank Problems and Financial Safety Nets," *Economic Review*, Federal Reserve Bank of Dallas, March 1987, pp. 17-28.

<sup>4</sup> Boyd, John H., "Deposit Insurance and Premium Rate-Setting: Its Effect on Portfolio Allocation and Risk of Insured Institutions," *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, May 1983, pp. 210-222.

<sup>5</sup> "Deposit Insurance for the Nineties: Meeting the Challenge," FDIC, January 4, 1989.

insurance at all, but a means to prevent widespread bank runs as occurred under central banking in the 1930's. Government deposit insurance is inherent in a central banking system because central banking creates systematic weakness and instability in the industry. No private sector insurance industry would be willing or able to underwrite such risk. To do so literally requires a monopoly on money, as central banking possesses.

## Regulation

Many economists have recognized that restrictions on interstate branching, prohibitions on entry into the securities business, and barriers to mergers all generally undermine the stability, efficiency, and profitability of the commercial banking industry. If the industry were permitted to operate with fewer banks possessing wider branching powers and a greater scope of product offerings, then banks could diversify sources of loans, deposits, and profits. The entire system would be more stable and efficient. Despite these widely recognized benefits, there has been little or no movement in legislatures to repeal the destabilizing regulations. Interstate banking restrictions have been relaxed somewhat, but usually only after the disastrous consequences of undiversified portfolios led to bank failures, such as in Texas. Glass-Steagall provisions left over from the 1930's, preventing bank entry into the securities business and better access to top corporations, remain in place, despite substantial economic research refuting the old myth that the mixture of commercial banking and investment banking led to the 1929 stock market crash.<sup>6</sup>

Opposition to government regulation of the banking industry narrowly addresses only one form of intervention; it is rarely directed against the massive subsidies provided to the industry. Government insures bank deposits, offers banks unlimited liquidity as lender of last resort, and then often bails out banks that fail anyway. Government also exempts the banking industry entirely from the bankruptcy code, placing the power to "assist" failed banks squarely in the hands of ignorant or lenient regulators. In short, although government restricts and regulates the banking industry, it also supports it in ways not available to any other industry. More importantly, it is these subsidies and this unique central banking support of the industry that serve as justification for the regulation that is imposed. The FDIC supports regulation on the grounds that it must protect the deposit fund. The Federal Reserve supports regulation on the grounds that it must protect the money supply and control bank access to its discount window. Central banking is a package deal. Bank regulation exists because there is deposit insurance, which in turn exists because

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<sup>6</sup> Walter, Ingo, Editor, *Deregulating Wall Street: Commercial Bank Penetration of the Corporate Securities Market*, John Wiley and Sons, New York, 1985.

there is an unpredictable lender of last resort, which in turn exists because there is a government monopoly of money. To oppose regulation effectively, it is necessary to oppose the basic features of central banking that make it necessary, the ones that are cited in justification of the regulation.

The evolution of central banking in the United States shows that government monopolized money by not immediately instituting a completely different monetary system. Government co-opted the free market money in existence at the time, at first doing so gradually by taking control of bank notes and specie. This is the only way early interventions could have been widely accepted. But as the interventions proceeded, government became the sole money monopolist with full, discretionary powers. We should not be surprised that during this evolution government intervention in banking also grew, for money and banking are inextricably linked. Today there is instability and weakness in our banking system because there is instability and weakness in our money. We will continue to have unsound banking as long as we have unsound money and we will continue to have unsound money as long as we have both government money and unlimited government.

### **Transition to Free Banking**

The growing number of economists who advocate free banking argue that the only way to achieve sound money and banking is not to reform central banking but gradually to phase it out of existence. In practice, phasing out central banking will involve phasing out its four basic features: its monopoly on note issue, its role as the lender of last resort (open market operations and the discount window), deposit insurance, and bank regulation. As central banking is dismantled, it will be necessary to develop an infrastructure that will permit free banking to flourish. Theoretical and practical work by economists and bankers can help determine how a modern-day system of free banking can best operate. Of course, the evolution of free banking cannot be forecast in all its ramifications — its details must be left to the market. Although much work still needs to be done, we should not ignore the lessons that free banking research has already provided to us. The considerable number of innovations spawned in financial markets in recent decades to deal with central banking instability indicate that free banking can be achieved. The result will favor a system of sound money and banking worthy of a growing and prosperous economy.

Below we discuss the reforms that would be necessary to phase out central banking gradually and permit free banking.<sup>7</sup> Adopting the reforms

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<sup>7</sup> For elaboration on the economic benefits of these reforms, see Lawrence White's *Competition and Currency: Essays on Free Banking and Money*, New York University Press, New York, 1989. He discusses some, but not all, of the following issues.

in the approximate chronological order presented here would minimize the disruption that might occur during the transition. However, such transitional disruption would be temporary and far less burdensome than the ongoing disruption in financial markets and the banking system that are a permanent condition of central banking.

### *1. Permit Free Banking*

Government at all levels should repeal restrictions against the ability of banks to open and close branches and offices nationwide. This is the simplest and least disruptive step in the transition to free banking and it would immediately improve banking stability. Banks would be better able to diversify their assets, liabilities, and risks. As branching extended throughout the country, banks would become more widely known to customers nationwide and people would begin to distinguish good from bad banks. Political barriers to branching are an unwarranted restraint of trade and an unconstitutional barrier to interstate commerce.

### *2. Allow Unrestricted Mergers and Acquisitions*

There are more than 13,000 banks in the United States — a result of a long history of incorporating firms at the state level and branching restrictions. No other country legislates such a fragmented industry. Stability and economic efficiency require fewer banks with many branches, not many banks with few branches. Arbitrary regulation, not economics, has artificially inflated the number of banks and has created widespread, destabilizing overcapacity. As branching restrictions are relaxed, government also must permit mergers and acquisitions in the industry. Greater banking concentration will bring economies of scale as well as of scope, enhancing both profitability and financial stability. Today, regulators arrange more bank mergers than the private sector, but they are of failed and failing banks. Banks and others in the private sector should be permitted to arrange mergers *before* such failures surface, and thereby prevent them from occurring. Regulatory hurdles also should be removed to permit a market for corporate control, in which the best bank managers compete for shareholder loyalty, while the incompetent and dishonest are displaced. The legal separation of banking and commerce also should be repealed, permitting outside, nonbanking companies to acquire banks. This would bring additional capital into the industry and further enhance its stability. The Glass-Steagall provisions of the Banking Act of 1935 should be repealed, permitting banks to underwrite commercial paper, bonds, stocks, and mutual funds. This would allow banks to earn diversified sources of income and permit them to improve their access to borrowers of greater credit quality.

### *3. Phase Out Government Deposit Insurance*

In the context of free branching and unregulated merger activity there should be a gradual phasing out of government deposit insurance, preferably over a 5-year period, with maximum coverage dropping in annual increments of \$20,000 from \$100,000 today to 0 at the end of the phase-out period. Of course, the phase-out should be widely disclosed prior to implementation to permit market adjustments. For small depositors who hold most of their cash in the banking system and who are concerned over potential bank failures, private deposit insurance would be available. Phasing out government deposit insurance would remove a significant source of risk-taking and instability from the banking system. Banks would work to increase their liquidity levels gradually, advertise their financial strengths, and demonstrate their ability to meet withdrawals. Institutions not yet able to make such commitments gradually would have to shift their deposit business into savings accounts that are not available on demand. There would be a significant expansion in the existing number of bank analysts, so that depositors and creditors could better assess the financial condition and deposit-paying abilities of their banks. Deposit funds and capital would start moving to better banks. Bank runs would be minimized because free branching would permit more diversified deposit sources and because, at this stage in the reform, the Federal Reserve still would be providing reserves to the banking system.

### *4. Permit Private Bank Notes*

Today the money supply (defined as M1) consists of bank deposits (85 percent of the total) and Federal Reserve bank notes (today's currency issued by the Federal Reserve banks and representing the remaining 15 percent of the money supply). For nearly a century during the free banking era banks issued their own currency. They should be permitted to do so again. Since private banks account for most of the money supply in the form of checking deposits, the change would not be that dramatic. Bank notes would be obligations of a bank, much like the commercial paper that banks currently issue, except that the bank notes would be convertible on demand and would be printed in denominations that could easily pass as cash. Depositors could request private bank notes or Federal Reserve notes when they withdrew their deposits. At first, deposits as well as private bank notes would be convertible into Federal Reserve notes. But reserve requirements should be repealed, for today they are imposed to assist in monetary policy, not to ensure liquidity (minimum reserves are not reserves that can be paid out to depositors). Banks that are deficient in Federal Reserve funds could continue to borrow excess reserves from other banks, as occurs today between banks in the Federal Funds market. Banks that trade in this market would begin paying closer atten-

tion to the financial condition of counterparty banks and a system of self-monitoring and self-regulating would develop. The market would gain experience in judging private bank notes, as they would begin to appear in daily transactions, in the payments system, and in the clearinghouses, much as bank checks and travelers' checks do today.

### *5. Permit Gold-Based Banking*

Throughout history, freer banking systems have been closely associated with the gold standard because gold is a universally accepted value, a stable source of purchasing power, easily divisible, portable, and a reserve anchor for privately issued currency. Under central banking the role of gold is severely limited and much of its supply is closely controlled by central banks. From 1934 to 1974 in the United States gold ownership was illegal. Although there now is freedom to buy gold, many restrictions remain and much of it still is held by central banks. In the United States, the government began minting gold coins in 1986, but it restricts their supply — and the legal tender value it stamps on the coins purposely is set at only about 10 percent of the market value of gold (\$50 currently is stamped on the 1-ounce Eagle) in order to discourage its use as a medium of exchange.

Free banking requires the repeal of all regulations on the use, trading, and disposition of gold. Banks must be permitted to hold gold for their own portfolios and to offer gold-based checking accounts and savings accounts. Borrowers who contract debts denominated in gold would enjoy enormous interest cost savings, since the purchasing power of gold is relatively stable and lenders do not build an inflation premium into the interest rate they charge. The U.S. Government should be required to disgorge its gold supplies at market prices. Gold serves no useful purpose sitting in the vaults of central banks that went off the gold standard almost 20 years ago. By permitting gold-based banking, the public and banks again would become familiar with gold as money and as bank reserves.

### *6. Repeal Legal Tender Laws*

Legal tender laws require that those who receive Federal Reserve notes in payment of an obligation must accept that currency at the cost of having the obligation canceled. There are no other products in the market today that government forces people to accept in trade, yet money represents one-half of every trade that takes place (other than barter). Given that the dollar issued by the Federal Reserve has a legal status that grants it a monopoly position, freedom of choice is prohibited in a very crucial aspect of economic exchange. Government must be required to repeal the legal tender status of Federal Reserve notes so that their acceptance in the market involves voluntary choice. Private bank notes, to the extent they

demonstrate greater value and stability than Federal Reserve notes, would be in greater demand. This would further enhance the stability of the private banking system, since capital and customers would flow to the banks of greatest strength and trade would take place with the money of the most reputable institutions. Before they are retired (see below) Federal Reserve notes would trade in a manner similar to U.S. Treasury securities, although of course they would be in the much lower denominations familiar to us today, and would not pay interest. Their value, as with private bank notes, would vary with supply and demand.

### *7. Discontinue Open-Market Operations*

As banks gain greater freedom to manage their own liquidity reserves in a decentralized manner, the Federal Reserve should be required to discontinue open-market operations, its active manipulation of the money supply by trading government securities with banks. The U.S. Treasury would continue to auction its own notes and bonds to financial institutions and other interested buyers in the market, but it would no longer count on the Federal Reserve to “monetize” its securities and assist its financings. This reform would begin to remove political considerations from management of the money supply and would force Congress and the U.S. Treasury to rely on fiscal integrity, not the Federal Reserve, to build a receptive market for government securities.

### *8. Close the Discount Window*

The Federal Reserve and bank regulators should be required to rescind their policy (in effect since the failure of Continental Illinois in 1984) that some banks are “too big to fail” or too important to particular communities to fail. If free branching and consolidation of the industry were permitted, borrowers and depositors would have numerous alternative sources of bank services and weak banks could more easily be absorbed into stronger ones. As a first step, the Federal Reserve should raise the discount rate to penalty levels (above market rates), then discount only real and short-term bank loans or government securities, denying access to insolvents. By this reform, government support for illiquid and insolvent banks would be prohibited and the market would learn to operate without the central bank as lender of last resort. This would enhance the financial condition of the banking system as banks would work to become more liquid and to arrange alternative means of liquidity in the market.

### *9. Privatize the Federal Reserve System*

Up to this point our reforms consist of gradually scaling back the responsibilities of the Federal Reserve and, more importantly, providing for their substitution with market-based functions carried out by the private

banking system. Having done this, it is then possible for us to privatize the Federal Reserve System. When we examine its balance sheet we find that it is an institution of approximately \$300 billion in assets, only a few times larger than the largest bank in the United States and representing only 10 percent of the total assets of the private banking system. The primary assets of the Federal Reserve consist of government securities, gold certificates, regional clearinghouses, check-processing centers, and executive office buildings, while its liabilities consist of Federal Reserve notes (currency), the reserve accounts of private member banks, and deposit accounts for the U.S. Treasury.

An effective method of privatizing the Federal Reserve System would be to transfer its balance sheet pro-rata to the private banking system so that, in effect, private banks would obtain the assets and assume the liabilities of the Federal Reserve System. This transfer would substantially enhance the financial condition of the private banking system and provide a solid foundation for its future growth and development. This is probably the least disruptive option available (the private banking system and the Federal Reserve being so interconnected), especially because many of the assets and liabilities that would be transferred from the Federal Reserve System are similar to those already managed by the private banking system. Furthermore, a transfer of the System to banks (instead of to the market generally) is justified because private banks actually own the capital stock of the Federal Reserve banks and the System originally was formed by transferring to itself some of the assets of the private banking system. In any event, the transfer includes the assumption of liabilities as well as assets. Although, technically, banks own the stock of the Federal Reserve System, they exercise no operating control over its policies. This privatization proposal simply recognizes the banks' ownership interest and permits them to exercise control over the disposition of the central bank's balance sheet.

The following balance sheet analysis suggests the general approach that could be taken in a privatization of the Federal Reserve. For the sake of clarity, we list only the most significant balance sheet items and the major participants in the transition.

### **The Current Central Banking Structure**

In the current system shown below, the U.S. Treasury actually has physical possession of most of the gold supply of the government, while the Federal Reserve System holds certificates evidencing its claim to the gold. This is a vestige of the initial phase of central banking, when the Federal Reserve forced banks to transfer their gold reserves to the government and it operated on a gold standard. Of course, the U.S. Treasury

also has significant obligations in the form of bills, notes, and bonds. Although the balance sheet of the Treasury does not seem to balance, we must remember that the U.S. Government owns property and, more importantly for purposes of servicing its debt, it has the power to tax. These are not relevant to the presentation and are therefore not included. We also show the balance sheets of the Federal Reserve, the private banking system, and where relevant, the general public (individuals, companies, and foreign institutions). All of this information is readily available in any issue of the *Federal Reserve Bulletin*. Here, we use the balance sheets as of the end of 1988, with denominations in billions of dollars.

### U.S. Treasury

Assets		Liabilities	
Power to Tax			
Gold	\$11.1	Gold certificates	\$ 11.1
Deposits at FR banks	9.0	U.S. Treasury securities due to:	
Deposits at U.S. banks	nr	FR banks	238.0
Property	nr	U.S. banks	194.0
Loans to public	nr	Public	1,659.0
		Other obligations	581.9
Total Assets	nr	Total Liabilities & Capital	\$2,684.0

### Federal Reserve System

Assets		Liabilities	
Gold certificates	\$ 11.1	Federal Reserve notes	\$230.0
U.S. Treasury securities	238.0	Deposits due U.S. banks	39.0
Other assets	<u>44.9</u>	Deposits due U.S. Treasury	9.0
		Other liabilities	12.0
		Capital	<u>4.0</u>
Total Assets	\$294.0	Total Liabilities & Capital	\$294.0

### U.S. Banking System\*

Assets		Liabilities	
Federal Reserve notes	\$ 30.0	Demand deposits due public	\$ 641.0
Deposits at FR banks	35.0	Time deposits due public	1,500.0
U.S. Treasury securities	344.0	Long-term debt	601.2
Loans	2,322.0	Capital	<u>188.8</u>
Other assets	<u>200.0</u>		
Total Assets	\$2,931.0	Total Liabilities & Capital	\$2,931.0

### Public†

Assets		Liabilities	
Federal Reserve notes	\$ 200.0	Loans due U.S. banks	\$2,322.0
U.S. Treasury securities	1,659.0	Loans due U.S. Treasury	nr
Demand deposits at U.S. banks	641.0		
Time deposits at U.S. banks	1,500.0		
Property, plant & equipment	nr		
Total Assets	nr	Total Liabilities & Capital	nr

nr Not relevant for purposes of this presentation.

\* Excludes interbank deposits, checks in the process of collection, and interbank loans.

† "Public" includes individuals, companies, and foreign institutions.

Source: *Federal Reserve Bulletin*, April 1989 and March 1990.

## The Transition to Free Banking

Under free banking, the private banking system would manage the coinage and the currency now managed by the Federal Reserve, in addition to the deposit accounts it already provides. One source of disruption that would be important to avoid in the transition to free banking would be the monetary disinflating that would follow the end of central banking. Today the demand for money and a number of other financial considerations in the marketplace have been affected by a constant stream of monetary inflating by the Federal Reserve and these expectations would significantly diminish when the system is fully privatized. This problem could be avoided by making the entire money supply of \$841 billion (demand deposits plus currency in the hands of the public) convertible into specie (primarily gold) plus other specie-backed notes and deposits.<sup>8</sup> In this way price deflation could be avoided because the money supply would not change.

In our example, the U.S. Treasury currently holds \$11.1 billion of gold, which represents 265 million ounces of gold at \$42 per ounce (the price of gold when the Federal Reserve went off the gold standard in 1971). If this stock of gold were valued at a more recent market price (\$450 per ounce) its total value would be approximately \$120.1 billion. This gold supply alone would provide a reserve of 14 percent against the existing money supply of \$841 billion. We ignore here the effect of international gold flows that would take place. Transferring gold assets to the banking system (actually, returning to the state of affairs that existed when banks held gold reserves in 1912 — before the Federal Reserve), would substantially enhance its strength. Not only would liquidity ratios be improved, but future price inflation and deflation would be minimized because gold is both limited in supply and indestructible. Limitations on future inflation would help the banking system preserve capital adequacy.

The privatization of the Federal Reserve could take place as follows. First, the U.S. Treasury could revalue its gold holdings to a current market price of \$120.1 billion, as discussed above. Likewise, the Federal Reserve could revalue its gold certificates to \$120.1 billion, which would be reflected as a \$109 billion increase in its capital. Next, the Federal Reserve could deliver its gold certificates to the Treasury as its claim on physical gold. The Treasury would lose gold as an asset and cancel the certificates. The Federal Reserve then would have the following balance sheet:

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<sup>8</sup> This insight was made by Professor George Reisman of Pepperdine University. For an elaboration of the point, see his *Government Against the Economy*, Caroline Publishers, 1979, pp. 194-198.

## Federal Reserve System

<u>Assets</u>		<u>Liabilities</u>	
Gold	\$120.1	Federal Reserve notes	\$230.0
U.S. Treasury securities	238.0	Deposits due U.S. banks	39.0
Other assets	<u>44.9</u>	Deposits due U.S. Treasury	9.0
		Other liabilities	12.0
		Capital	<u>113.0</u>
Total Assets	\$403.0	Total Liabilities & Capital	\$403.0

Then properly valued, the Federal Reserve balance sheet could be transferred to the private banking system. On a pro-rata basis (or whatever way is most convenient), the private banking system would assume the assets (gold, Treasury securities, clearinghouses, etc.) and the liabilities (Federal Reserve notes and deposits due to the Treasury) of the Federal Reserve System. Note that of the existing \$230 billion of Federal Reserve notes, banks already hold \$30 billion, so they would only have to assume as an obligation the net difference of \$200 billion. Of course, this money is held by the general public, as before, but it would become an obligation of the private banking system, not the Federal Reserve. In our example, "Deposits due U.S. banks" would no longer be required, and would be roughly offset by the value of "Other assets" received. The U.S. Treasury securities previously held by the Federal Reserve would become interest-earning assets in the private banking system. The Treasury holds all its deposit accounts in the private banking system. The new free banking system would be comprised of the following participants:

### U.S. Treasury

<u>Assets</u>		<u>Liabilities</u>	
Deposits at U.S. banks	\$ 9.0	Obligations:	
Property, plant & equipment	nr	U.S. banks	\$582.0
Loans to public	nr	Social Security, other	nr
Total Assets	nr	Total Liabilities & Capital	nr

### U.S. Banking System

<u>Assets</u>		<u>Liabilities</u>	
Gold	\$ 120.1	Private bank notes	\$ 200.0
U.S. Treasury securities	582.0	Demand deposits	641.0
Loans	2,322.0	Time deposits	1,500.0
Other assets	<u>200.0</u>	Long-term debt	601.2
		Capital	<u>281.9</u>
Total Assets	\$3,224.1	Total Liabilities & Capital	\$3,224.1

### Public

<u>Assets</u>		<u>Liabilities</u>	
Federal Reserve notes	\$ 200.0	Loans due U.S. banks	\$2,322.0
U.S. Treasury securities	1,659.0	Long-term debt	
Demand deposits at U.S. banks	641.0	due U.S. Treasury	nr
Time deposits at U.S. banks	1,500.0		
Property, plant & equipment	nr		
Total Assets	nr	Total Liabilities & Capital	nr

nr Not relevant for purposes of this presentation.

One important benefit from this method of privatization is that the general public would not be directly effected; the money supply, as we have said, would stay intact at approximately \$841 billion, but it then would be backed by assets held in the private banking system, not with the government. Moreover, the private banking system would be much stronger because its reserves would be gold and it would operate under the array of free banking incentives that favor prudent financial management. As the above balance sheet indicates, the banking system's capital would increase from \$188.8 billion to \$281.9 billion in the transition, and the new capital ratio of nearly 9 percent would double the ratio currently in effect.

There is one account that awaits resolution. We note that the public still would hold Federal Reserve notes, even though the Federal Reserve System would be in the process of being phased out of existence. But these currency holders would not lose anything by this because their currency was never convertible into assets under central banking in any event. In fact, under the new free banking system, the public would gain something it has not had since the early phase of central banking — the right to redeem currency and deposits in gold. They would do this by exchanging their Federal Reserve notes for the private bank notes that banks have been given the power to issue. This is why we show the private banking system obligated on a supply of \$200 billion of currency, equivalent to the Federal Reserve notes that would gradually be retired out of existence. In turn, this would require that banks make their notes and deposits redeemable in gold, an obligation that banks should willingly undertake, since they would have received almost \$100 billion in net assets of the Federal Reserve System. As we had under our previous free banking system, government would define the “dollar” as a fixed weight of gold and whatever transactions occurred in the marketplace, including the conversion of bank notes and deposits, to the extent a dollar is specified as the medium of exchange, it would represent the designated weight of gold. This requirement of redeemability would not be a case of government intervening in market choice because defining the dollar is as innocuous as setting weights and measures. For example, to designate that three feet shall represent a yard does not amount to intervention in the lumber market. So with money. Defining a dollar as a weight of gold does not mandate that dollars be used in transactions (other media could freely be used), only that *if* they are used, they will represent the designated weight in gold.

Banks in the new system would be free to carry any type of asset or reserve, in any fraction, against their liabilities. Fractional reserve banking would not be illegal and there would be no reserve requirements or portfolio restrictions on assets or liabilities. However, the government

should announce as a policy the following: if any bank that enters into contracts that make any part of its obligations convertible subsequently fails to convert as contracted, it shall be prosecuted in a court of law under the bankruptcy laws, at the behest of the bank's obligees. Under such a system, the most successful banks, those whose notes and credit services would be in most demand, would be those who tended to: 1) establish convertibility for their demand notes and demand deposits, 2) use reserves for convertibility that the market knows banks cannot manufacture at will (specie or sound commercial paper), and 3) maintain a safe fraction of such reserves in relation to outstanding liabilities. Convertibility would be constantly tested by large-debt holders of banks who would be free to sue banks for defaults, by holders of bank notes and deposits who could convert their holdings over the counter, and by the clearing-house banks that present to a bank its notes and deposits by the clearing mechanism.

Some economists have suggested that free banking would be an impractical system. Yet free banking operated successfully in this country for the century when we achieved our greatest economic advances. Furthermore, there is nothing "practical" about the extensive deterioration in the value of money and in the instability of the banking system over this century. Clearly, central banking is not working. On the other hand, free banking today would seem to be more practical than ever, for few of the factors that may have limited the success of free banking a century and a half ago (other than government intervention) exist today. A century and a half ago, without the knowledge of deposit and noteholders, disreputable banks might escape scrutiny or convertibility and issue notes to distant locations leading to varying discounts. Today, we live in an "information age," where electronic debits and credits are settled daily and where the financial condition of banks is easily monitored by professionals and laymen alike. A century and a half ago, branching was severely restricted and interfered with convertibility. Today branching is more widespread and deposit clearings nearly instantaneous. A century and a half ago, unscrupulous banks could bilk depositors by accounting obfuscations. Today we have sophisticated accounting systems and the public reporting of financial statements as well as disclosure required by clearinghouses. Such firms as Standard & Poor's, Moody's, Keefe, Bruyette & Woods, and others rate the financial condition of banks. These firms could easily extend their existing ratings of long-term debt and certificates of deposit to demand deposits and bank notes, much like the claims-paying ratings they assign to insurance companies. Bank analysis and rating would become a growth industry. A century and a half ago, noteholders at the retail level were the main check on bank expansion. Today the largest depositors are corporations whose treasury staffs monitor the financial

condition of their banks of deposit, moving vast sums accordingly. Other banks also would promote financial integrity and strength in other banks because of the interbank reserve, loan, and deposit markets. A century and a half ago, there were no nationally developed stock or bond markets. Today thousands of banks are listed on major exchanges, providing a further window on their financial conditions. All these modern features of our financial system — and more — would seem to make free banking a practical alternative.

## **Conclusion**

Central banking has failed to improve upon what Nobel economist Friedrich Hayek called “the spontaneous social order” of free banking, a failure that can be seen as a special case of the general failure of central economic planning. The fundamental difference between free banking and central banking is the difference between a free market and a system of central planning. More precisely, it is the difference between private planning based on economic profit and bureaucratic planning based on political expediency. The money and banking system is too important to our freedom and our economic prosperity to be left to political manipulation. The system should be placed on an objective foundation of free-market principles and removed from the subjective quicksands of political manipulation. It should be governed by the rule of law and contract, not by the arbitrary rule of men. We know this has been the most useful approach in every other branch of industry. It is time to discover it in money and banking. Free banking offers an exciting, innovative, and prudent alternative to the central banking system that has destroyed sound money and sound banking.

## BIBLIOGRAPHY

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Garcia, F. L., *How to Analyze a Bank Statement*, Bankers Publishing Company, Boston, 1985.

Johnson, Ivan and William Roberts, *Money and Banking: A Market-Oriented Approach*, Dryden Press, New York, 1985.

One of the few, modern money and banking textbooks that does not slavishly incorporate Keynesian fallacies in its presentation. Although not sufficiently appreciative of the free banking alternative (no money and banking textbooks are, as yet), market-based, neoclassical monetary principles are addressed extensively enough to make this one of the best money and banking textbooks now available.

Sinkey, Jr., Joseph F., *Commercial Bank Financial Management*, Macmillan, New York, 1989.

A corporate finance perspective on the internal financial management of banks, including the proper liquidity position, loan portfolio, deposit mix, interest rate exposure, capital structure, dividend policy, and acquisition strategy. The most comprehensive book of its kind.

"Warning Lights for Bank Soundness: A Special Issue on Commercial Bank Surveillance," *Economic Review*, Federal Reserve Bank of Atlanta, November 1983.

Regulators, bank analysts and banking professors present theory and evidence on the measurement and determination of financial weakness in banks. An excellent source for analytical methods and the meaning of bank financial ratios.

West, Robert Craig, "Assessing the Financial Condition of Commercial Banks," *Banking Studies Working Paper #84-6*, Federal Reserve Bank of Kansas City, 1984.

A statistical test of the CAMEL rating system (acronym for capital adequacy, asset quality, management, earnings, and liquidity). Confirms the importance of CAMEL factors in assessing the financial condition of banks, but also identifies four other crucial determinants. Banks that have a greater proportion of short-term commercial loans and attract more time deposits do better, and those that have heavier concentrations in real estate and consumer lending, and rely most on demand deposits do worse.

### II. Theory of the Banking Firm

Fama, Eugene F., "Banking in the Theory of Finance," *Journal of Monetary Economics*, January 1980, pp. 39-58.

A pathbreaking contribution to the theory of the banking firm because it starts with the assumption that banks should be completely free and unregulated, instead of treating the existing politicized arrangement as an unquestioned axiom. He finds that "nothing in the economics of the banking sector makes it a special candidate for government control" and that "there is no need

to control the deposit creation and security purchase activities of [free] banks to obtain a stable general equilibrium in respect to prices and real activity.”

Mints, Lloyd, *A History of Banking Theory*, University of Chicago Press, Chicago, 1945.

A definitive classic on the evolution of banking theory and practice in Great Britain and the United States since the 18th century, with special emphasis on the high-quality debates in 19th century England between the Banking School, the Currency School, and to a lesser extent the Free Banking School. An important source book because free banking theorists today draw heavily upon the British debates. However, Mints misrepresents the real-bills doctrine and, as a monetarist, intrudes with the unwarranted assertion that “the state is and must be the final authority in respect to monetary matters.”

### III. Bank Safety, Soundness & Failure

Benston, George J. *et al.*, *Perspectives on Safe and Sound Banking: Past, Present, and Future*, MIT Press, Cambridge, 1986.

In a study commissioned by the American Bankers Association, five highly respected banking professors sympathetic to the problems of interventionism analyze safety and soundness in the banking system. The best chapters deal with government obfuscation of the condition of bad banks and its deposit insurance incentives in favor of imprudence and against sound banking. It is shown how “underpriced deposit insurance gives banks incentives to hold low amounts of equity capital.”

Kaufman, George G., “The Truth About Bank Runs,” in *The Financial Services Revolution*, Kluwer Academic Publishers, Boston, 1988.

Shows that bank runs were rare under free banking but helped insure sound practices. Today, government deposit insurance stops bank runs but promotes financially unsound banks. Worse, regulators try to mask bad banks by resorting to accounting gimmickry, by blocking financial disclosure, and by monopolizing failure resolution procedures. Depositors and bondholders end up deceived. Kaufman calls for quicker, more candid resolution of bank failures and basic reforms of deposit insurance.

Peterson, Richard L. and William L. Scott, “Major Causes of Bank Failures,” *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, May 1-3, 1985, pp. 166-183.

A review of bank failures of this decade, the authors cite “malfeasance, sustained low performance, and inadequately controlled rapid growth.” They find that “one consistent early indicator of potential failure was a low ratio of equity to assets.” Also, “the data failed to show that deregulation has been a major contributing factor.... Management laxity goes uncorrected even under regulation.”

Pettway, Richard H. and Joseph F. Sinkey, Jr., “Establishing On-Site Examination Priorities: An Early-Warning System Using Accounting and Market Information,” *Journal of Finance*, March 1980, pp. 137-150.

The market has a better track record than regulators in identifying bad banks. It does so faster and more accurately, manifesting itself in a lower stock

price or in higher rates paid on deposits. Regulators often misclassify bad banks as sound banks because they only consider accounting data.

Santomero, Anthony M. and Joseph D. Vinso, "Estimating the Probability of Failure for Commercial Banks and the Banking System," *Journal of Banking and Finance* 1, 1977, pp. 185-205.

The capital-to-assets ratio is the most predictive measure of bank failure. The authors note that "the last century has seen a steady decline in bank capital ratios" but do not suggest reasons for it. Regulators should rely on the capital ratio for "identifying and assisting" bad banks.

Short, Eugenie D., Gerald P. O'Driscoll, Jr., and Franklin D. Berger, "Recent Bank Failures: Determinants and Consequences," *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, May 1-3, 1985, pp. 150-165.

A study of the microeconomic determinants of bank failure. Financial ratios are symptomatic, not causative. Unsound banks choose riskier portfolios, but the existence of a lender of last resort and deposit insurance promotes such risk-taking. "The probability of bank failures and bank runs is higher than anytime since the Great Depression."

Tussing, A. Dale, "The Case for Bank Failure," *Journal of Law & Economics*, October 1967, pp. 129-147.

An excellent argument against the policy of preventing bank failures at any cost. The policy causes "the most fundamental business decisions in banking — whether and where to open an office for business, whether to close it, what assets to acquire — are made by the firm by its regulators, except with respect to detail." It stymies "the primary social function of competition, the separation of good from bad management." Forestalling bank failures keeps resources in inefficient hands.

Welker, Edward P., "How Safe Is Your Bank?," *Economic Education Bulletin*, American Institute for Economic Research, Great Barrington, September 1987.

A useful booklet that explains how to analyze the financial condition of a bank (or to access professional analysts who do so) and to assess its comparative performance. It reviews the unreliability of deposit insurance, the reasons for bank failure, and the principles and practices of sound banking. Contains a brief summary of how the gradual removal of gold from banks by the government has removed an important free-market check against unsound banking.

#### IV. Central Banking in Theory

Bagehot, Walter, *Lombard Street: A Description of the Money Market*, Kegan, Paul & Co., London, 1873.

A significant 19th century contributor to the theory and practice of the "lender of last resort." Building on the work of Thornton (1802, see below), he advised the Bank of England to lend only in "emergencies," only to solvent banks, only against sound commercial paper, always at a penalty (above market) rate of interest, and without jeopardizing its own supply of gold reserves. (Note how every condition has been violated by 20th century central

banks.) Bagehot said free banking was actually the ideal system, but that it was not possible "politically."

Buchanan, James M. and H. Geoffrey Brennan, *Monopoly in Money and Inflation*, The Institute of Economic Affairs, London 1981.

A critique of the "market failure" arguments that have been used to justify a government monopoly of money and a demonstration that there is more evidence for "government failure." Government's record is one of inflation and mismanagement because *it* is the monopolist, immune from competition. Governments are "self-seeking monopolistic revenue-maximizers." Standard monopoly theory is extended to government. The monopolist should be bound by rules, but not abolished.

Friedman, Milton and Anna J. Schwartz, "Has Government Any Role in Money?," *Journal of Monetary Economics*, 1986, pp. 37-62.

Due to recent free banking literature, the authors re-examine Friedman's four main rationalizations for government's fiat money monopoly and intervention in banking. These include excessive gold mining costs, the impossibility of enforcing bank deposit convertibility, the unlimited nature of inconvertible free bank notes, and the negative overflow effects of money on those other than banks. They conclude that "leaving monetary and banking arrangements to the market would have produced a more satisfactory outcome than was actually achieved through government involvement."

Hayek, Friedrich A., *Monetary Theory and the Trade Cycle*, Harcourt Brace, New York, 1932.

Business cycles result from overexpansion in the money and banking sector. When interest rates are brought below the "natural" rate, there results a boom in the capital goods sector and economy-wide malinvestment. The decline in the cycle is an inevitable liquidation and return to equilibrium. Argues that the very nature of the banking brings cycles, although central banking can magnify the swings.

Hetzel, Robert L., "Henry Thornton: Seminal Monetary Theorist and Father of the Modern Central Bank," *Economic Review*, Federal Reserve Bank of Richmond, July/August 1987, pp. 3-16.

An admiring monetarist sets the historical context of Thornton's influence after his 1802 book (see below). He is called the "Father of Modern Central Banking" because of his arguments against gold and for fiat money, against free banking and for extensive central bank control and manipulation of base money and the price level. He was overshadowed in the 19th century because of the rise of the gold standard, but his ideas were resurrected by Knapp and Keynes (see below) and monetarists and widely but unsuccessfully applied in the 20th century.

Humphrey, Thomas M. and Robert E. Kelleher, "The Lender of Last Resort in Historical Perspective," *The Cato Journal*, Spring/Summer 1984, pp. 275-318.

Traces the lender-of-last-resort theories of Thornton (below) and Bagehot. The lender-of-last-resort function of the central bank is necessary precisely because it has monopolized the monetary base. Also, government deposit

insurance is ineffective unless ultimately backed by the lender of last resort.

Keynes, John Maynard, *The General Theory of Employment, Interest and Money*, MacMillan, London, 1936.

A general call for vast government fiscal and monetary intervention in the economy to lower unemployment and smooth business cycles. The central bank must finance deficit spending through the banking system, lower interest rates to zero, and surreptitiously lower real wages by inflating the money supply and prices — in short, debase the currency. Finally, there must be a “socialization of investment” with such decisions removed from private hands.

Knapp, George Friedrich, *The State Theory of Money*, 1905, MacMillan, London, 1924.

Claims that government confers value on money that it would not otherwise possess, a theory cited often to justify government monopoly and manipulation of money. Keynes was successful in promoting Knapp’s view in the United Kingdom and United States despite its disastrous application in Germany (the 1923 hyperinflation). A generation earlier Austrian economist Carl Menger (*Principles of Economics*, 1871) had shown that money originated from spontaneous market activity.

Rockoff, Hugh, “Walter Bagehot and the Theory of Central Banking,” Chapter 5 (pp. 160-180) of *Financial Crises and the World Banking System*, F. Capie and G. Wood, Ed., St. Martin’s Press, New York, 1986.

Highlights the basic contradiction in Bagehot’s *Lombard Street*; the central bank is advised to lend freely at penalty interest rates but also to protect against the withdrawal of the bank’s gold reserves. The basis for intervention is arbitrary, subjective, and contradictory.

Smith, Vera C., *The Rationale of Central Banking*, P. S. King, London, 1936.

A critique of the arguments for central banking by a student of Hayek. The theory and history of central banking is based on mercantilism — monopoly powers granted by government for its own benefit. Central banks were founded and expanded for political reasons, not because free banking was deficient. Most theoretical arguments for central banking were developed as rationalizations after the banks were established, not as sound economic arguments before their establishment. Indirectly makes an excellent case for free banking and shows why instabilities of the free banking era in the 19th century United States actually were due to government intervention.

Thornton, Henry, *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain* (1802), Rinehart & Company, Inc., New York, 1939.

British monetary theorist writing after Britain suspended gold convertibility in 1797, he argued that fiat money could work if the central bank had monopoly control of the monetary base (all banking reserves). It could, therefore, have control of the entire money supply and, ultimately, of the national price level. Free banking and the real-bills doctrine were criticized as unstable and inflationary. Free banks could artificially lower their discount rates to attract more bills and inflate, so it was better for the central bank to control money and rates.

Thornton was the first to assign to the central bank responsibility not merely for banking system liquidity but for economic conditions broadly. Keynes argued for the same powers in the 1930's.

Wagner, Richard E., "Central Banking and the Fed: A Public Choice Perspective," *The Cato Journal*, Fall 1986, pp. 519-538.

The central banking monopoly cannot be rationalized on the basis of curing some "market failure or imperfection." Money is not a natural monopoly and free banking is not inherently unstable. The central banking bureaucracy is not exempt from the motive of self-interest; its interest is in promoting government power at the expense of economic well-being.

Wallace, Neil, "A Legal Restrictions Theory of the Demand for Money and the Role of Monetary Policy," *Quarterly Review*, Federal Reserve Bank of Minneapolis, Winter 1983, pp. 1-7.

Laws making Federal Reserve notes a legal tender give them value they would not otherwise possess; without such laws, government money would be nearly worthless. The only justification for making government paper notes a legal tender is the taxation that comes from inflating. Laissez-faire banking implies the absence of laws making government notes a legal tender.

## V. Free Banking in Theory

Butos, William N., "The Knowledge Problem Under Alternative Monetary Regimes," *The Cato Journal*, Winter 1986, pp. 849-871.

An application of the famous "socialist calculation debate" to money and banking. Free banking is a natural, efficient, and stable system because it relies on the dispersed knowledge of private bankers closest to economic conditions. Mistakes are localized and limited. By its very nature the central banking bureaucracy is too remote and its resources too limited to ever possess the knowledge required to manage money and credit. The result is mismanagement on a massive scale.

Brimelow, Peter, "Do You Want to be Paid in Rockefellers? In Wristons? Or How About a Hayek?," *Forbes*, May 30, 1988, pp. 243-250.

An easily accessible, popularized account of the rapid rise of today's free banking economists, from the country's pre-eminent business magazine. Predicts that "free banking is an idea that you will be hearing much more about in the years ahead."

Duncombe, Charles, *Free Banking*, 1841, Augustus M. Kelley, New York, 1969.

Written in the midst of the free banking era and reflective of the time, an argument for free banking with some central banking elements mixed in. Heavy emphasis on the importance of specie-based reserves, the real-bills doctrine, and unlimited liability of bank owners.

Dowd, Kevin, *The State and the Monetary System*, St. Martin's Press, New York, 1989.

A concise, contemporary study of the free banking-central banking debate and the theory and history of each system. Central banking "monetary policy"

is a form of central planning that cannot work and actually disrupts the economy. Dowd explains why the study of free banking has increased in the past 2 decades (dissatisfaction with central banking, the re-examination of successful free banking eras), how it might be implemented, and how it would work.

England, Catherine, "Agency Costs and Unregulated Banks: Could Depositors Protect Themselves?," in *The Financial Services Revolution*, Kluwer Academic Publishers, Boston, 1988.

Agency costs are those associated with individuals (principals) monitoring the behavior of those (agents) to which they have entrusted certain powers. England argues that a free banking system provides more information and better opportunities for depositors (principals) to monitor the behavior of the bankers (agents) to whom they have entrusted their money, than does central banking. Discusses ways current information about banks would be expanded under free banking.

Glasner, David, *Free Banking and Monetary Reform*, Cambridge University Press, New York, 1989.

A comprehensive study of the political origins of central banking, the natural workings of free banking, the Monetarist-Keynesian monetary debate, and the failures of that debate that gave rise to free banking as an alternative money and banking system. Monetarist leanings pervade.

Greenspan, Alan, "Gold and Economic Freedom," in *Capitalism: The Unknown Ideal*, by Ayn Rand, New American Library, New York, 1967.

Argues that "a free banking system based on gold is able to extend credit and thus to create bank notes (currency) and deposits according to the production requirements of the economy." The creation of the Federal Reserve, on the other hand, substituted unlimited paper reserves (government debt) for limited gold reserves and subjected money and credit to political manipulations. Statists opposed to the gold standard blamed gold, not central banking, for the Great Depression caused by the Federal Reserve. "The abandonment of the gold standard enabled welfare statists to use the banking system as a means to an unlimited expansion of credit."

Hayek, Friedrich A., *Denationalization of Money*, The Institute of Economic Affairs, London, 1978.

The pathbreaking thesis of the 1974 Nobel Prize-winning economist that defends the natural stability of competitively issued inconvertible bank notes and calls for the abolition of the central banking money monopoly. Believes banks would converge naturally toward a standard of value and the purchasing power of each bank's notes would be indexed to a basket of commodities. Abolition of central banking is the only solution to inflation and cycles.

Hildreth, Richard, *Banks, Banking and Paper Currencies*, 1840, Greenwood Press, New York, 1968.

Probably the best-reasoned argument by an American writer for "free and open competition in banking" to appear in the 19th century. Fractional reserve banking is stable and legitimate as long as banks maintain adequate specie reserves, discount sound, short-term commercial credit in proportion to their bank notes, make longer-term loans only out of capital, and honor their com-

mitments to convertibility. Government should not condone or promote suspensions of convertibility, but otherwise, it should be completely separated from money and banking.

Humphrey, Thomas M., "The Real Bills Doctrine," *Economic Review*, Federal Reserve Bank of Richmond, September/October 1982.

A thorough review of the history of the doctrine upheld by many free banking advocates. Humphrey and other monetarists reject it on the basis that bankers cannot easily distinguish "real" from artificial bills and that banks can increase their discounts without limit by simply lowering their rates. As a result, note issues and the price level have no limit. He concedes, however, that Adam Smith and other advocates defended the doctrine only in the context of specie convertibility, that single banks must conform to market rates, and that the price level is thereby anchored and noninflationary.

Klein, Benjamin, "The Competitive Supply of Money," *Journal of Money, Credit and Banking*, November 1974, pp. 423-454.

A theory of how a competitive yet stable issuance of free bank notes is possible in the absence of any convertibility provisions. As long as monies of each bank are distinguishable, he argues, brand names will develop and a competition for quality will alone limit overissuance.

Miller, Harry E., *Banking Theories in the United States Before 1860*, 1927, Augustus M. Kelley, Clifton, 1972.

A scholarly treatment of the main doctrines of banking practice during the early free banking era. The real-bills doctrine and specie-convertibility of bank notes and deposits were widely accepted and practiced. Bank loans were considered sound if extended for production and trade, not for consumption or speculation. The business cycle was said to have its origins in departures from these sound principles.

Raguet, Condé, *A Treatise on Currency and Banking*, 1840, Augustus M. Kelley, New York, 1967.

Written amidst the free banking era. Raguet applies the principles of free trade to currency and banking, rejecting the view that they deserve some government-sponsored exemption. He extensively examines the nature of money and banking under metallic, mixed, and inconvertible paper currencies. The first is more sound than the last.

Rahn, Richard, "Should We Privatize Money?," *Policy Review*, Heritage Foundation, Washington, D.C., September 1986, pp. 55-57.

The Chief Economist of the U.S. Chamber of Commerce answers "Yes. Central bankers cannot resist political pressure to debase the currency." Free banking means "good currency can drive out bad," since the only way a free bank could make a profit is to provide a superior currency. Suggests private money be based on a commodity index.

Reisman, George, "Gold: The Solution to Our Monetary Dilemma," *The Intellectual Activist*, New York, 1980.

The dilemma is that the Federal Reserve, having inflated for so many decades, faces either a 1929-style depression or a 1923-German-style hyperinfla-

tion. The solution is to stop the possibility of either inflation or deflation by making the value of the gold stock equal to the current money supply, returning gold to the market, and establishing free banking.

Rockoff, Hugh, "Institutional Requirements for Stable Free Banking," *The Cato Journal*, Fall 1986, pp. 617-634.

For free banking to function smoothly in today's context, it cannot have the unfree, destabilizing restrictions imposed on banks during the U.S. free banking era, such as immediate convertibility of bank obligations at the demand of the holder, unlimited liability of stockholders, prohibition of currency issuance (in some cases), limitations on the number of stockholders, bond-collateral reserve requirements, or branching limitations.

Sargent, Thomas J. and Neil Wallace, "The Real Bills Doctrine Versus the Quantity Theory: A Reconsideration," *Journal of Political Economy*, June 1982, pp. 1212-1236.

Free banking based on the real-bills doctrine is shown to offer greater economic benefits than central banking based on the quantity theory of money. A critique of monetarism's opposition to the real-bills doctrine and its support of central banking. The authors call for "a rehabilitation of the real-bills doctrine."

Selgin, George A.

– "The Case for Free Banking: Then and Now," *Policy Analysis*, The Cato Institute, October 21, 1985.

A proposal for instituting free banking that recognizes that the abolition of the central banking monopoly of base money could bring instability. This can be avoided by first restoring the right of banks to issue their own bank notes and then freezing the existing central bank monetary base. For a time, bank notes (and deposits) would be redeemable on demand in Federal Reserve notes. Eventually, other reserves might be substituted. Draws on the experience of the National Banking era, when restrictions on bank note issues prevented the public from satisfying seasonal changes in the currency/deposit ratio and caused periodic panics.

– *The Theory of Free Banking*, Rowman & Littlefield, Totowa, 1988.

Examines how private banks would operate free from legal restrictions on the issuance of bank notes and deposits. Competition would limit monetary expansion by compelling banks to redeem these liabilities in gold (or in a fixed supply of fiat money issued by a defunct central bank). The reserve ratio would rise or fall as equilibrium is reached in the supply and demand of notes and deposits. This ratio would fall continuously as the economy expands.

Selgin, George A. and Lawrence H. White, "The Evolution of a Free Banking System," *Economic Inquiry*, July 1987, pp. 439-458.

Sennholz, Hans F., *Money and Freedom*, Libertarian Press, Spring Mills, PA, 1985.

Damage to our prosperity and the gradual socialization of credit are the inevitable result of government's money monopoly being forced on the economy by legal tender laws.

Smith, Adam, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776, New York, Modern Library, 1937.

Chapter II of Book II makes the case for relatively free banking, the real-bills doctrine, and specie-convertible currency. In short, "If bankers are restrained from issuing any circulating bank notes, or notes payable to the bearer for less than a certain sum; and if they are subject to the obligation of an immediate and unconditional payment of such bank notes as soon as presented, their trade may, with safety to the public, be rendered in all other respects perfectly free."

Taub, Bart, "Equilibrium Traits of Durable Commodity Money," *Journal of Banking and Finance* 9, 1985, pp. 5-34.

Shows that "a system of specie as backing is essential for paper money to win acceptance" and that when such convertibility is in place, "the instabilities ascribed to free banking do not arise."

Timberlake, Richard H., Jr., "The Central Banking Role of Clearinghouse Associations," *Journal of Money, Credit and Banking*, February 1974, pp. 1-15.

Traces the development of the free banking clearinghouses from 1857-1907, which began as the means for economizing interbank payments and evolved to impose discipline and financial disclosure rules on its members. They also provided liquidity as a lender of last resort to circumvent destabilizing government restrictions on branching and note issuance.

Tullock, Gordon, "Competing Monies," *Journal of Money, Credit and Banking*, November 1975, pp. 491-497.

Inflation would be much lower if money were issued competitively and there were no good reason for the government to give any reputation or value to its currency, because it faces no competition. A money monopoly forces bad money into reluctant hands. A currency subject to repeated inflation would lose out to others if competing currencies were permitted.

Vaubel, Roland, "Competing Currencies: The Case of Free Entry," Chapter 13 (pp. 281-296) in *The Search for Stable Money*, University of Chicago Press, Chicago, 1987.

Reviews the main justifications economists have offered for a monopoly in money and finds them all defective. Government barriers to entry in any sector prevent economic efficiency, but especially in money. Removing legal barriers to currency competition would minimize the expansion of depreciating currencies substantially because holders could choose sounder money.

von Mises, Ludwig, *The Theory of Money and Credit*, 1912, Liberty Classics, Indianapolis, 1981.

The monumental work on free-market, gold-based money and banking by the most influential Austrian School economist of the 20th century. Demonstrates the origin, nature, and value of money, but its primary virtue is its presentation of the principles of sound banking. Also includes a highly sophisticated analysis of government inflation policies that, intending to artificially lower interest rates, lead instead to economic distortions, booms, and busts.

Walter, Ingo, Editor, *Deregulating Wall Street: Commercial Bank Penetration of the Corporate Securities Market*, John Wiley & Sons, New York, 1985.

Leading financial economists argue that the 1929 stock market crash and the ensuing Great Depression were incorrectly blamed on the fact that a few commercial banks underwrote securities. The legal separation of commercial and investment banking since 1934 is unjustified and actually destabilizes commercial banks by cutting them off from profitable, yet prudent financing opportunities.

White, Lawrence H., *Competition and Currency: Essays on Free Banking and Money*, Columbia University Press, New York, 1989.

This book is the most extensive, scholarly, and well-written treatment of free banking available today. Collects the various journal articles White wrote during the 1980's that so quickly and effectively advanced the free banking position in the economics profession. Demonstrates that free banking is a legitimate, alternative monetary system, that its history is favorable, and that it is most stable and efficient when based on gold. Shows the inevitability of politicized money and credit under central banking and the futility of effectively binding the government with rules.

## VI. Central Banking in Practice

Anderson, Benjamin M., *Economics and the Public Welfare*, Van Nostrand, New York, 1949.

A former Chief Economist at Chase Manhattan Bank defends principles of sound banking and shows the Federal Reserve's role in removing gold, inflating, and undermining the money and banking system.

Bailey, Martin, "The Welfare Cost of Inflationary Finance," *Journal of Political Economy*, April 1956, pp. 92-110.

The classic paper on inflation as a hidden, purposeful tax imposed by government through central banking. This "inflationary finance" is resorted to when taxes and direct borrowing from the public are deemed politically inexpedient.

Chari, V. V., "Banking Without Deposit Insurance or Bank Panics: Lessons From the National Banking System," *Quarterly Review*, Federal Reserve Bank of Minneapolis, Summer 1989, pp. 3-19.

The "inelastic currency," bank panics, and suspensions of convertibility that recurred in the 50 years prior to the Federal Reserve (and that were used to justify its establishment) were due not to free banking but to government restrictions against branching and the scheme of government-imposed reserve pyramiding.

Clair, Robert T. and Paula K. Tucker, "Interstate Banking and the Federal Reserve: A Historical Perspective," *Economic Review*, Federal Reserve Bank of Dallas, November 1989, pp. 1-20.

Through its entire history (with the exception of current Chairman Alan Greenspan), Federal Reserve officials have opposed interstate branching for banks, despite growing evidence that it would strengthen the banking system

(more diversified loan portfolios and funding sources). Officials argued that such freedom would lead to bank concentration, "monopolistic power" and "excessive political influence."

Friedman, Milton and Anna Schwartz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, Princeton, 1963.

The classic historical study of the crucial importance of money in determining economic activity. Although not advocates of free banking or the gold standard, the authors show that central banking was responsible for extensive monetary mismanagement, especially in the Great Depression.

Goodhart, Charles, *The Evolution of Central Banks*, MIT Press, Cambridge, 1985.

A critique of recent free banking literature by a former chief economist at the Bank of England who argues that the central banking money monopoly and regulation were a "necessary and natural" evolution. However, historical accounts of the establishment of central banking in eleven countries indicate that central banks arose when government took over failed banks or set up new ones, in either case solely for the purpose of deficit finance.

Groseclose, Elgin, *America's Money Machine: The Story of the Federal Reserve*, Arlington House, Westport, 1980.

Under the Federal Reserve, "inflation came to be a central instrument of public policy." Exposes the myth of the Fed as an "inflation fighter"; it is in fact a machine dedicated exclusively to inflationary finance.

Peterson, William M., "The Effects of Inflation on Bank Profitability," *Recent Trends in Commercial Bank Profitability*, Federal Reserve Bank of New York, 1986, pp. 89-114.

"Real bank earnings have been significantly and negatively affected by inflation" and "more adversely so than the profitability of non-financial corporations." As a result, bank stock prices in relation to earnings are much lower than in other industries, making it difficult for banks to attract capital.

Phillips, C. A. and T. F. McManus and R. W. Nelson, *Banking and the Business Cycle: A Study of the Great Depression in the United States*, Macmillan, New York, 1937.

Likely the best study ever done on central banking's role in bringing about the Great Depression. Central banking is an inherently inflationistic system artificially superimposed with detrimental effects on an otherwise stable banking system. Central banking brought the depression. Influenced by the free-market Austrian theory of the business cycle (von Mises, Hayek, Robbins) and by E. C. Harwood's business-cycle insights as well. Defends gold-based banking.

Poole, William, "Monetary Control and the Political Business Cycle," *The Cato Journal*, Winter 1986, pp. 685-699.

Reisman, George, *The Government Against the Economy*, Caroline Publishers, Illinois, 1979.

A series of penetrating demonstrations that inflation emanates not from free

markets but from central banking, and that failures to recognize this fact lead to widening regulation, price controls, and socialism. Includes a proposal for a free banking-based gold standard.

Santoni, G. J., "The Effect of Inflation on Commercial Banks," *Review*, Federal Reserve Bank of St. Louis, March 1986, pp. 15-26.

Inflation raises interest rates and harms bank profitability, so that "the real share price of bank stocks rise with lower inflation and fall with higher inflation." Inflation harms creditors who get repaid in cheaper money, and banks are the economy's biggest creditors. The capital ratio of banks falls under inflation, undermining the banking system.

Timberlake, Richard H.

– "Federal Reserve Policy Since 1945: The Results of Authority in the Absence of Rules," in *Money in Crisis*, Pacific Institute, 1984.

Advocates of central banking claim it is supposed to generate high employment, real economic growth, and stable prices, but in the United States the Federal Reserve has accomplished precisely the opposite. This largely is due to the fact that the original Federal Reserve System, based on the gold standard and the real-bills doctrine, soon abandoned both.

– *Money, Banking and Central Banking*, Harper & Row, New York, 1966.

A rare money and banking textbook that stresses their historical development in the United States (showing that money and banking were sounder in the past) and treats central banking as a destabilizing intervention artificially superimposed on the private banking system.

– *The Origins of Central Banking in the U.S.*, Harvard University Press, Cambridge, 1978.

An advocate of free banking traces the idea of central banking in the United States in the century prior to the establishment of the Federal Reserve in 1913. Refutes the common notion that central banking was first conceived after the 1908 panic, or that it was a corrective for free banking. There was always agitation for government intervention in money and banking for purely political purposes, and the resulting dislocations and panics were simply used to justify and hasten the evolution toward central banking.

– "Institutional Evolution of Federal Reserve Hegemony," *The Cato Journal*, Winter 1986, p. 743.

Advocates of the Federal Reserve System before 1913 promised opponents that it would not exercise central control, nor abandon the gold standard, nor discount anything other than sound commercial paper. In 2 decades it was a full-fledged central bank whose growth in power was directly related to the extent of its failure. It received the most power in the 1930's, after causing the Great Depression, and still more in the 1980's, despite its disastrous stagflation policies of the 1970's. Every Fed failure has only led to an expansion, not contraction, in its powers over money and banking. Timberlake proposes freezing the supply of money and privatizing the Fed, distributing all of its assets, including gold.

– "Seventy-Five Years of Managed Money," *Durrell Journal of Money and Banking*, November 1989, pp. 2-9.

An excellent source document for the extensive, sophisticated Congressional debates that took place during passage of the Federal Reserve Act in 1913 and those surrounding subsequent central banking reform measures in 1935 and 1980.

Toma, Mark, "The Role of the Federal Reserve in Reserve Requirement Regulation," in *The Financial Services Revolution*, Kluwer Academic Publishers, Boston, 1988.

A central bank imposes reserve requirements on banks not to insure liquidity for deposit withdrawals (which can always be obtained by borrowing from the central bank) but in order to promote a demand for central bank liabilities to maximize central bank power over the money supply.

van Horne, James C., "The Withering of Capital," *Journal of the Midwest Finance Association*, Vol. 10, 1981, pp. 83-91.

Documents the trend (started in the 1930's and accelerating in the 1960's) in what the author calls "the social allocation of capital." This is the array of programs and policies more accurately identified as the government nationalization of credit that Keynes recommended so highly. Regulations, subsidies, guarantees, and credit controls are discussed.

White, Eugene Nelson

– "A Reinterpretation of the Banking Crisis of 1930," *Journal of Economic History*, March 1984, pp. 119-138.

In the 1930's banks were weakened or vulnerable to collapse due to regulatory constraints and regional economic difficulties. Such problems could have been avoided under free branching because "the pervasive restrictions on branching created thousands of small unit banks with relatively undiversified portfolios."

– *The Regulation and Reform of the American Banking System, 1900-1929*, Princeton University Press, Princeton, 1983.

Turn of the century reformers in the United States failed to identify government intervention in the National Banking Era (especially anti-branching and reserve pyramiding) as the main cause of banking panics, and agitated for government power to "centralize reserves" and print an unlimited "elastic currency." He argues that it would have been far better to lift such restrictions than to institute still further intervention by the monopoly and controls inherent in central banking. Failure to do so brought far worse problems such as the Great Depression, when many banks failed because they remained by law undiversified, single-office institutions.

Willet, Thomas D., Ed., *Political Business Cycles: The Political Economy of Money, Inflation, and Unemployment*, Duke University Press, Durham, 1988.

The Federal Reserve is primarily a political institution, founded and perpetuated to finance unlimited government spending, and sustained by its responsiveness to political expediency. It has actively influenced elections. Political independence of the central bank is a myth.

## VII. Free Banking in Practice

Carroll, Charles Holt, *The Organization of Debt Into Currency and Other Papers*, Van Nostrand, Princeton, 1964.

Advocates free banking on the basis of 100 percent specie reserves. Rejects fractional reserve banking and inconvertible paper money as inflationary and fraudulent. More paper money does not bring more wealth — it only brings price inflation and economic disruption.

Dillistin, William H., *Bank Note Reporters and Counterfeit Detectors, 1826-66*, Numismatic Notes and Monographs, 114, American Numismatic Society, New York, 1949.

The free banking era saw the spontaneous rise of investigative financial reporters dedicated solely to distinguishing good from bad banks. The most famous was Thompson's Bank Note Reporter, the precursor to today's *American Banker* newspaper. The trading values of bank notes were widely disseminated, permitting the public to shun the delinquents' notes.

Dunbar, Charles, *The Theory and History of Banking*, Knickerbocker Press, New York, 1891.

A comprehensive overview of standard free banking principles and practices prior to the establishment of central banking. Specie-convertible liabilities, the real-bills doctrine, and capital adequacy were mandatory for sound banking. Lending, the issuance of bank notes and deposits, and general bank management are presented as a science, and crucially dependent on experience and prudence. A text that was used in universities at the turn of the century, it is valuable not only as a historical account but also as an effective guidebook to the managers of a future free banking system.

Economopoulos, Andrew J., "Illinois Free Banking Experience," *Journal of Money, Credit and Banking*, May 1988, pp. 249-264.

The only extensive study to date on free banking in Illinois, a state second only to New York in the number of free banks in operation and considered by economic historians to have had a poor free banking experience. The author finds that "the traditional accounts of wildcat banking are unsubstantiated" and suggests that the state's unwarranted calls for additional capital often induced free bank failures.

Gouge, William, *A Short History of Paper Money and Banking in the United States*, 1833, Augustus M. Kelley, New Jersey, 1968.

Invaluable historical material on early U.S. banking (1790-1833) and a critique of the disastrous consequences of the First and Second Bank of the United States, which issued inconvertible paper money and promoted similar practices in the private banking community. Result was inflationary booms and periodic widespread bankruptcies. Only 100 percent specie reserve banking is legitimate. His writings influenced the movement to abolish the Bank of the United States in 1836 as well as free banking writers to follow.

Hammond, Bray, *Banks and Politics in America*, Princeton University Press, Princeton, 1957.

A classic history of early U.S. banking, especially the political influences on

its development. Criticizes as exaggerated the free banking horror stories of historian Frederick Jackson Turner that have been incorporated uncritically into standard money and banking textbooks.

King, Robert G., "On the Economics of Private Money," *Journal of Monetary Economics*, July 1983, pp. 127-162.

A theoretical analysis of free banking tested against the 19th century experience in New York, the most extensive free banking state. There is no indication of natural monopoly, discovers counterfeiting was not a problem, and bank failures were not significant.

Knox, John Jay, *A History of Banking in the United States*, 1903, Augustus M. Kelley, New York, 1969.

Well-documented account of the freer U.S. banking century prior to the establishment of central banking, by a successful banker (and later Comptroller of the Currency for 12 years) who upheld the gold standard and sound money and banking practices. Significant statistical detail and commentary on the varied banking practices in each of the states under free banking systems.

Mullineaux, Donald J., "Competitive Moneys and the Suffolk Bank System: A Contractual Perspective," *Southern Journal of Economics*, April 1987, pp. 884-898.

The favorable experience of the Suffolk Bank System in Massachusetts during the free banking era shows that the stability of a system of free banking is best assured when larger, more dominant banks take a lead role in disciplining the note and deposit issues of other banks.

Paul, Ron and Lewis Lehrman, *The Case for Gold: A Minority Report of the U.S. Gold Commission*, The Cato Institute, 1982.

The Minority Report of the 1982 U.S. Gold Commission, this is a concise summary of U.S. money and banking history from a perspective favorable to free banking on a gold standard. Contains proposals for achieving free banking and gold-based money today, without the inconsistencies of past free banking laws, and without a central bank.

Rockoff, Hugh

– *The Free Banking Era: A Re-examination*, Arno Press, New York, 1975.

The most extensive empirical reexamination of the U.S. free banking era (1836-63) and a catalyst to subsequent free banking research. Problems such as excessive note issue, losses to noteholders, failed banks, "wildcat" banks, and chaos were wildly exaggerated by earlier historians either unfamiliar with economics or citing only anecdotal evidence. Where these problems did arise, they were the result not of laissez-faire banking but of explicit departures from it through various government interventions.

– "The Free Banking Era," *Journal of Money, Credit and Banking*, May 1974, pp. 141-167.

Only 6 of 18 free banking states experienced "wildcat" banks, and although cited by historians as the main reason for mistrusting laissez-faire banking, they were a result of government intervention, not freedom. State governments

obtained financing by forcing banks to purchase their bonds, with the rationalization that the bonds secured bank notes. Unscrupulous banks could profit by purchasing unsound, discounted bonds and issuing bank notes at par. Wildcat banking was confined to a few episodes, usually on the frontier, where state finances were weak.

- “Varieties of Banking and Regional Economic Development in the United States, 1840-1860,” *Journal of Economic History*, March 1975, pp. 160-181.

There was a wide disparity in the freedom of banks in different regions of the United States during the free banking era and “free banking, when conceived as free deposit banking in conjunction with a 100% reserve note issue, was a feasible banking system.” The freer the banking system, the more likely economic growth and development would ensue.

- “The Management of Reserves by Antebellum Banks in Eastern Financial Centers,” *Explorations in Economic History*, Fall 1973.

The management of free banks in Boston, New York, and Philadelphia. Rockoff finds involved a “careful decision-making process” pursued by bankers who “fortified their liability structures with a substantial proportion of equity funds.” Questions the typical historical interpretation of government taming the reckless tendencies of free bankers.

- “New Evidence on Free Banking in the United States,” *American Economic Review*, 1985, pp. 886-889.

The free banking experience in Michigan was the source of most negative stories about “wildcat” banks, but many Michigan banks were established during a lawless period when the state had only recently joined the union and had suspended specie convertibility, attracting bad characters.

Rolnick, Arthur J. and Warren E. Weber

- “Free Banking, Wildcat Banking and Shinplasters,” *Quarterly Review*, Federal Reserve Bank of Minneapolis, Fall 1982, pp. 10-19.

Evidence on free banking in New York, Indiana, Wisconsin, and Minnesota shows that fraudulent banks were not common and bank failures were due primarily to periodic collapses in the value of bonds of uncreditworthy state governments.

- “New Evidence on the Free Banking Era,” *American Economic Review*, December 1983, pp. 1080-1090.

Refutes three common myths: that free bank failures were numerous, that free banks were in business for only brief periods, and that free bank notes were unsafe and produced substantial losses for noteholders. “It is misleading to characterize the free banking experience as a failure of laissez-faire banking.”

- “Inherent Instability of Banking: The Free Banking Experience,” *The Cato Journal*, Winter 1986, pp. 877-890.

A system of laissez-faire banking is not “inherently unstable,” not likely by its very nature to generate bank failures or panics in the absence of outside economic factors impinging on bank loan portfolios such as crop failures, business failures, or defaulted state bonds.

Salin, Pascal, Editor, *Currency Competition and Monetary Union*, Kluwer Academic, The Hague, 1984.

Free banking works internationally as well as domestically. A century of international economic cooperation and growth (1815-1914) occurred when the gold standard and relatively free banking operated.

Trivoli, George, *The Suffolk Bank: A Study of a Free-Enterprise Clearing System*, Adam Smith Institute, London, 1979.

The Suffolk Bank System in Massachusetts (1825-1858) operated with great success in bringing discipline and stability to the competitive issue of free bank notes throughout New England.

White, Lawrence H., *Free Banking in Britain: Theory, Experience & Debate 1800-1845*, Cambridge University Press, Cambridge, 1984.

A major impetus to the rise of free banking research today, with three main contributions: 1) a theory that free banking stability is based on specie convertibility and the Law of Reflux (issuing notes is costly and limited because they return upon banks through the clearing mechanism), 2) the identification of a distinctive Free Banking School of writers in 19th century British monetary debates, and 3) application of his theory to the Scottish free banking period (from 1727-1844 the freest, most stable banking system in history).

## VIII. Bank Capital Adequacy

Albertson, Robert, "Emerging Trends for Bank Stocks: The Supremacy of Equity," *Investment Research*, Goldman Sachs & Co., New York, March 1988.

Core or equity capital is today one of the major determinants of the valuation of bank stocks, as shown in a study of 39 large banks that, with greater capital adequacy, were more highly valued (higher price/earnings multiples) by the stock market.

Andrews, Suzanna, "The Desperate Search for Capital," *Institutional Investor*, January 1985, pp. 239-246.

As bank capital adequacy deteriorates, most banks are unable to attract additional capital due to low profits and high risk. Regulators press banks for more capital, but many banks resist by using accounting gimmickry to mask the inadequacy, or to deny that capital is important.

Beighly, H. Prescott, John H. Boyd and Donald P. Jacobs, "Bank Equities and Investor Risk Perceptions: Some Entailments for Capital Adequacy Regulation," *Journal of Bank Research*, Autumn 1975, pp. 190-201.

"In a free-market economy, it is desirable to have capital standards set by private market forces rather than by administrative edict." Bank equity markets respond negatively to high bank leverage and offer a market impetus to capital adequacy.

Bryan, Lowell L., "Capital Guidelines Could Weaken Banks," *The Wall Street Journal*, April 23, 1987.

A bank management consultant argues that since it is cheaper for banks to

finance themselves by government-insured deposits and debt than it is to use equity, regulators only undermine banks by requiring more equity. The only solution is to have government intervene more directly in banks' lending decisions, with veto power over bad loans and bad management.

Buser, Stephen A., Andrew H. Chen, and Edward J. Kane, "Federal Deposit Insurance, Regulatory Policy, and Optimal Bank Capital," *The Journal of Finance*, March 1981, pp. 51-60.

The FDIC "sells" two products: deposit insurance *and* regulation and the latter is an unavoidable consequence of the former. By setting low premiums it must widen its regulatory net.

Cotter, Richard V., "Capital Ratios and Capital Adequacy," *The National Banking Review*, March 1966, pp. 333-346.

A study of the relationship of capital ratios to bank failures between 1914-1933 concludes that the proportion of capital to risky assets, not to total assets, best predicted bank failure.

Crouhy, Michel, "An Economic Assessment of Capital Requirements in the Banking Industry," *The Journal of Banking & Finance*, 10, 1986, pp. 231-241.

Low liquidity, not low capital, is the primary cause of bank insolvency, because failure to meet deposit withdrawals is the ultimate reflection of a bank's failure. But depositor runs on a bank's liquid reserves may result from concerns about the bank's insufficient capital base. Government deposit insurance promotes low liquidity.

Furlong, Frederick T. and Michael C. Keeley, "Bank Capital Regulation and Asset Risk," *Economic Review*, Federal Reserve Bank of San Francisco, Spring 1987, pp. 20-40.

Banks benefit from underpriced government deposit insurance by increasing leverage and/or asset risk, so government capital regulation is needed to limit the liability of the insurance fund.

Gallant, Richard A., "Approaches to Capital Planning," *Journal of Bank Research*, Autumn 1975, pp. 173-176.

A bank financial officer notes that "bankers have acted for years as if there were no constraints on their resources" so that now "most banks have exhausted their ability to leverage existing capital any further" or to attract external capital. The only solution is to stop asset growth, risking stagnation.

Greenspan, Alan, "High Capital Ratios Don't Mean Weak Returns," *American Banker*, November 17, 1989.

Bank capital ratios were much higher in the past but this did not prevent the industry from effectively competing for investors and customers. In recent decades banks have lost investors and customers while capital adequacy has diminished. Cites evidence that for 2,300 banks between 1975 and 1988, those with higher capital ratios had higher returns on equity.

Hagaman, T. Carter, "Earnings Stability: Key to the Equity Market," *Journal of Bank Research*, Autumn 1975, pp. 183-185.

The banking industry has both lower and less stable profitability than other industries that, combined with its relatively greater leverage, makes it difficult for the banking industry to attract outside capital in competition with other industries. The banks' "solution" to an unattractive stock has been high dividend-payout ratios, which further deplete capital and raise leverage.

Langley, William, "Strategies in Today's Capital Environment," *Journal of Bank Research*, Autumn 1975, pp. 177-178.

Capital ratios at banks fall because of rapid asset growth but this growth is hard to avoid because banks are competitive and do not want to lose customers by refusing loans. Yet profitability on these assets has not been high enough to build capital and prevent a falling ratio.

Lindow, Wesley, "Bank Capital & Risk Assets," *The National Banking Review*, September 1963, pp. 29-46.

Capital ratios remained steady and at high levels (above 40 percent) during the free banking era but have been lower and falling (from 38 percent in 1863 to 10 percent in 1962) ever since. Liquidity ratios also have declined in the century of national and central banking. Both trends are due to excessive loan expansion. Regulators have responded to this decline in capital adequacy by simply including certain forms of debt in the definition of capital.

Maisel, Sherman J., Editor, *Risk and Capital Adequacy in Commercial Banks*, Chicago University Press, Chicago, 1981.

Applies modern portfolio and capital theories of finance to problems of managing and measuring risk and capital adequacy in banks. Highlights the benefits of greater reliance on market mechanisms as against government regulation. Regulation can be reduced and the current system — in which "poor managers are protected by the umbrella of the FDIC" and that, in turn, "penalizes the well-managed bank" — can be improved.

Mayne, Lucille S., "Supervisory Influence on Bank Capital," *The Journal of Finance*, June 1972, pp. 637-651.

Government supervision and regulation has no significant impact on bank capital adequacy. The competency of bank management is the determining factor, so regulators should decide who runs banks, not how they run them. Once bad managers are in place, government regulators "actually have little leverage and must rely on persuasion, harrassment, or possibly public citation to convince a bank to increase its capital."

Mingo, John J., "Regulatory Influence on Bank Capital Investment," *The Journal of Finance*, September 1975, pp. 1111-1121.

Bank regulators have the power to enhance bank capital positions but choose not to do so because 1) they recognize that it is government deposit insurance that promotes low capital ratios (by giving banks a stable liability base) and 2) they do not intend to remove such insurance for fear of bank runs.

Orgler, Yair E. and Benjamin Wolkowitz, *Bank Capital*, Van Nostrand Reinhold Company, New York, 1976.

Comprehensive overview of the measurement, determinants, and regulation of bank capital. Bank capital ratios were ten times higher in the 19th century

than in this century. In recent decades “bank assets and liabilities have grown faster than bank capital...in an unsettling environment characterized by a long period of sustained inflation and rapid growth in bank assets.”

Peltzman, Sam, “Capital Investment in Commercial Banking and its Relationship to Portfolio Regulation,” *The Journal of Political Economy*, January/February 1970, pp. 1-26.

Greater capital would be invested in banking in the absence of government intervention. Federal deposit insurance is 1) a direct substitute for bank capital, 2) the main cause of low bank capital, 3) the reason why regulators want more capital while bankers want less, and 4) the reason regulators cannot stop banks from lowering their capital ratios. Bank owners invest very limited capital primarily because they can access low-cost, government-insured deposits and leverage their purchasing power well beyond their initial investment.

Pringle, John J., “The Capital Decision in Commercial Banks,” *The Journal of Finance*, June 1974, pp. 779-795.

There is no incentive for bank managers to increase capital ratios for the sake of depositors because responsibility for the safety of their position has been monopolized by government deposit insurance. Unlike other firms that must satisfy obligations to debtholders as well as stockholders, banks are only concerned with the latter. Since stockholders want a high rate of return on equity, banks can lower equity as much as possible to raise the rate.

Pyle, David H., “Capital Regulation and Deposit Insurance,” *The Journal of Banking and Finance*, 10, 1986, pp. 189-201.

Bank regulators delay the liquidation of bad banks and increase overall loss exposures. Unlike private insurers, government deposit insurance offers a perpetual guarantee tied to the mere existence of depositors; it is not rescinded or restricted if a bank fails to abide by certain contractual provisions or performance measures.

Santomero, Anthony M. and Michael Koehn, “Regulation of Bank Capital and Portfolio Risk,” *The Journal of Finance*, December 1980, pp. 1235-1244.

Regulators who only impose a minimum capital ratio rule on banks invite all banks, but especially those with risky loan portfolios already, to shift toward even riskier portfolios. A rule for prudence and safety ironically leads to imprudence and failure. The only solution is for government also to control bank lending decisions.

Taggart, Robert A. and Stuart I. Greenbaum, “Bank Capital & Public Regulation,” *The Journal of Money, Credit and Banking*, May 1978, pp. 158-169.

Banks are induced to build leverage because of government insured deposits. There is no private incentive for more bank equity because it only benefits a collective insurance fund, not a particular bank’s credibility and reputation with depositors, and therefore its profits.

Watson, Ronald D., “Banking’s Capital Shortage: The Malaise and the

Myth," *Business Review*, Federal Reserve Bank of Philadelphia, September 1975, pp. 3-13.

The shortage of bank capital results from banks expanding their assets more rapidly than their reinvested profits can boost capital. External capital cannot be raised because for large banks the stock price/earnings ratio has fallen from 20 times in the 1960's to 5 times today; the market places low value on bank stocks and banks' cost of capital is too high. Smaller banks do not have access to stock markets. "If banks were completely unregulated and free, market forces would solve the 'capital shortage' automatically."

Yohe, W. P., "Commercial Bank Earnings, the Strengthening of Capital Accounts, and Monetary Policy," *The Southern Economic Journal*, October 1960, pp. 104-110.

Bank capital ratios tend to fall during periods of "monetary ease" (central bank inflation) and to rise during periods of restriction (central bank disinflation).

## IX. Bank Deposit Insurance

Boyd, John H., "Deposit Insurance Premium Rate Setting: Its Effect on Portfolio Allocation and Risk of Insured Institutions," *Proceedings of a Conference on Bank Structure and Competition*, The Federal Reserve Bank of Chicago, May 1983.

The probability of bank failure under a fixed-rate deposit insurance system is greater, and the system inherently necessitates balance sheet regulation so the insurer (the government) can limit its losses. A variable-rate system would lead to government control of bank sheets because it assigns the risk-weightings.

"Deposit Insurance for the Nineties: Meeting the Challenge," A Staff Study, *Federal Deposit Insurance Corporation*, January 4, 1989.

The FDIC fund fell by 20 percent in 1988 due to record bank failures and bailouts, but the study blames "imprudent decisions by a handful of financial institutions" and calls for a massive increase in FDIC power.

Ehrlich, Isaac and Gary S. Becker, "Market Insurance, Self-Insurance, and Self-Protection," *Journal of Political Economy*, July/August 1972, pp. 623-648.

In a free market deposit "insurance" would consist of a bank's capital base, which would be much higher than it is today under the system of low, fixed-premium government insurance. Government creates a "moral hazard" at banks; managers respond to government deposit insurance by taking on greater risk, jeopardizing the safety of the bank and the exposure of the government.

England, Catherine, "A Proposal for Introducing Private Deposit Insurance," *Proceedings*, Federal Reserve Bank of Chicago, 1985.

Bank regulation exists because government deposit insurance exists. But by the nature of their position bank regulators have neither the ability nor the motivation to assess bank risk in a timely or accurate manner. Instead of fine-tuning regulation and government insurance, a new private bank deposit insurance industry should be permitted to develop.

Kane, Edward J., *The Gathering Crisis in Federal Deposit Insurance*, MIT Press, Cambridge, 1985.

Government deposit insurance funds face inevitable bankruptcy because unsound banks are kept open and sound banks are forced to finance them. Bank regulators use lax accounting standards to hide insolvent banks and then delay liquidating them to avoid blame. Companies in other industries must conform to generally accepted accounting principles and wronged liability holders have access to the courts.

Kareken, John H., "The First Step in Bank Deregulation: What About the FDIC?," *American Economic Review*, May 1983, pp. 198-203.

Since banks are regulated because low-cost, unlimited government deposit insurance is provided, banking deregulation should not proceed without removing such insurance.

Short, Eugenie D., "Bank Problems and Financial Safety Nets," *Economic Review*, Federal Reserve Bank of Dallas, March 1987, pp. 17-28.

Government deposit insurance motivates banks to increase their exposure to risk, increases the chance of bank failures, and reduces the need for depositors to monitor their banks. "Deregulation" often is blamed because risky management decisions are visible and deposit insurance is unquestioned and not considered a subsidy.

Thomson, James B., "Equity, Efficiency, and Mispriced Deposit Guarantees," *Economic Commentary*, Federal Reserve Bank of Cleveland, July 15, 1986.

A Federal Reserve economist argues that government deposit insurance encourages lower bank capital ratios, lower liquidity, riskier assets, less information about banks, and a transfer of wealth from sound to bad banks. It "destabilizes the financial system" and "increases the probability of system-wide bank failures."

## X. Bank Regulation and its Financial Effect

Black, Fischer, Merton H. Muller and Richard A. Posner, "An Approach to the Regulation of Bank Holding Companies," *Journal of Business*, 1978, pp. 379-412.

Banks formed holding companies to overcome harmful government restrictions and diversify their risks and to "ease some of the economic rigidities created by banking regulation." Still, claims "regulators should view their role as that of a surrogate for private lenders."

Chase, Samuel B. and John J. Mingo, "The Regulation of Bank Holding Companies," *Journal of Finance*, May 1975, pp. 281-305.

Government should not restrict bank holding companies because they strengthen bank subsidiaries, permitting better management, portfolio diversification, access to capital, and lower costs through economies of scale.

Cobb, Miles A., *Federal Regulation of Depository Institutions: Enforcement Powers and Procedures*, Warren, Gorham & Lamont, Boston, 1984.

The most comprehensive reference on the history, growth and massive extent of government intervention and control over the banking system.

Greenbaum, Stuart I. and Mukhtar M. Ali, "Entry, Control and the Market for Bank Charters," *Journal of Finance*, May 1974, pp. 527-535.

Government tries to enhance the value of banks and avoid bank failures not only by restricting entry into the industry to those it deems fit to run a bank, but also by restricting exit from the industry — so that unfit banks are not allowed to fail.

Guenther, Harry, "Deregulation — Is it Happening in Banking?," *Regulation*, December 1980, pp. 42-49.

Banks are being regulated more tightly in an effort to achieve social goals that either have nothing to do with bank safety or positively undermine it. In the 1970's, a dozen "consumerist" type bills were passed that promote government credit allocation and credit controls.

Jacobs, Donald, "The Framework of Commercial Bank Regulation: An Appraisal," *The National Banking Review*, March 1964, pp. 343-357.

If there were no government deposit insurance or regulation, there would be fewer, larger banks and "depositors would seek out the protection of prestigious banks."

Kalish, Lionel and R. Alton Gilbert, "The Influence of Bank Regulation on the Operating Efficiency of Commercial Banks," *Journal of Finance*, December 1973, pp. 1287-1301.

Government permits more entry in markets where banks are more efficient and profitable and restricts it where the banks are less efficient and profitable. "Such an approach to bank regulation creates a penalty...for banks that show high profit rates."

Kane, Edward J., "Good Intentions and Unintended Evil: The Case Against Selective Credit Allocation," *Journal of Money, Credit and Banking*, February 1977, pp. 55-69.

Special interest groups have actively and increasingly promoted government intervention in bank credit allocation in order to redistribute wealth in their favor. Although this follows inevitably from government's role in instituting national economic policy, it forces banks to make decisions that are arbitrary and political and counter to economic self-interest.

Loevinger, Lee, "Anti-Trust and the Banking Revolution," *Regulation*, July/August 1985, pp. 19-24.

Anti-trust restrictions against merger and consolidation in the banking industry limit competition and undermine the strength of the system by protecting inefficient institutions.

Mingo, John and Benjamin Wolkowitz, "The Effects of Regulation on Bank Balance Sheet Decisions," *Journal of Finance*, December 1977, pp. 1605-1617.

When regulators call for higher capital ratios to increase soundness, banks

with limited access to capital markets can only respond by shrinking in size (in loans and deposits). As this can cause deflation and an economic contraction, regulators often permit the least sound banks to remain that way.

Peltzman, Sam, "Entry in Commercial Banking," *Journal of Law & Economics*, October 1965, pp. 11-50.

Free entry into banking was ended after 1935, restricting the entry of new capital.

Selgin, George and Steven Horwitz, "Interstate Banking: The Reform that Won't Go Away," *Policy Analysis #97*, Cato Institute, Washington, D.C., December 15, 1987.

A history of anti-branching statutes and their effects on bank failures and banking system weakness. The Federal Reserve and FDIC were created, in part, to remedy problems stemming from anti-branching laws. There is only political opposition (from small banks), not economic argument, against free branching. Calls for complete and immediate free branching and merging.

Vernon, Jack R., "Regulatory Barriers to Branching and Merger and Concentration in Banking Markets," *Southern Economic Journal*, January 1971, pp. 349-355.

Government deposit insurance and barriers to merging and branching artificially create and sustain an excess number of small and financially weak banks subject to failure in the face of localized economic adversity. Although free merging would consolidate the industry, free branching would simultaneously insure competition.

Wallace, Neil, "Integrating Micro and Macroeconomics: An Application to Credit Controls," *Quarterly Review*, Federal Reserve Bank of Minneapolis, Fall 1980, pp. 16-29.

Microeconomics (relative price theory) teaches that government credit controls undermine efficient creditor-debtor outcomes, while macroeconomics (absolute price theory) teaches that such controls are constructive in limiting inflation. But government macroeconomic credit controls are inextricably linked to microeconomic controls, and both can be destructive.

## **XI. Bank Profitability**

*Recent Trends in Commercial Bank Profitability*, A Staff Study, Federal Reserve Bank of New York, 1986.

An extensive study of the decline of commercial bank profitability from 1970-85 that stresses the particularly damaging effects of Federal Reserve inflationary policies and the loss of high-quality corporate borrowers on the financial condition of the banking system.

## **XII. Bank Asset Quality**

Chan, Yuk-Shee, Stuart I. Greenbaum, and Anjan V. Thakor, "The Deterioration of Bank Asset Quality," *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, May 1-3, 1985, pp. 268-284.

An "alarming deterioration in the asset quality of banks and savings and loans" in recent decades has been a consequence of years of inflation followed by disinflation, a cycle "exposing banks to a government fiduciary transgression." During inflationary booms profit-seeking banks have no incentive "to undertake costly research for high quality assets" and end up choosing riskier loans that turn sour when inflation slows.

Durden, Hugh M., "Commercial Bank Term Lending — Longer and Looser?," *Journal of Commercial Bank Lending*, December 1980, pp. 3-10.

Unhealthy trends in long-term lending practices violate the commercial loan theory of banking. Once a rare form of bank financing, term loans now are half of all commercial loans (this noted prior to the boom in long-term acquisition loans in the 1980's). Bank term loan provisions are increasingly very loose, harming banks.

Passmore, S. Wayne and Betsy B. White, "Loan Loss Provisions," *Recent Trends in Commercial Bank Profitability*, Federal Reserve Bank of New York, 1986, pp. 141-158.

High interest rates, coincident with central bank inflation, undermine bank loan quality and profitability.

Storrs, Thomas I., "Freedom for Banks," *Journal of Finance*, May 1975, pp. 293-302.

Traces the deterioration in bank lending standards and loan quality that accelerated in the inflationary 1960's and 1970's, resulting in lower liquidity, profitability, and capital.

### XIII. Bank Liquidity

Fekete, Antal E., "Borrowing Short and Lending Long: Illiquidity and Credit Collapse," *The Committee for Monetary Research and Education*, June 1983.

Excellent discussion of the "commercial loan theory" of bank liquidity based on Adam Smith and the history of liquidity theories since. Bank illiquidity is promoted by government protecting banks from their creditors (depositors); illiquidity leads to deflation under the gold standard and inflation under a regime of irredeemable fiat currency.

Grunewald, Alan E. and Alex J. Pollock, "Money Managers and Bank Liquidity," *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, May 1-3, 1985, pp. 563-575.

Liquidity policy was ignored at banks until the run on Continental Illinois in 1984 when money managers holding large uninsured deposits refused to roll them over. But government's bailout of those same large depositors and its promise to prevent large bank failures again has lessened any general interest in achieving bank liquidity.

Palyi, Melchior, "Liquidity," *The Committee for Monetary Research and Education*, October 1984.

Defends bank liquidity in opposition to the views of Keynes and quantity theorists. Bank illiquidity leads to the "ossification of bank balance sheets" and system instability. Only a liquid banking structure promotes sound production and employment and avoids the economic disturbances inherent in artificial credit creation and lengthening.

#### **XIV. Philosophy and Practice of Bank Management**

Baughn, William H., Thomas I. Storrs and Charls Walker, Editors, *The Banker's Handbook*, DowJones-Irwin, Homewood, Illinois, 1988.

Comprehensive overview of bank management practices with relevant chapters on lending, liquidity, and capital management. An instructive contrast to the more conservative practices outlined in older banking handbooks.

Harr, Luther and Carlton Harris, *Banking Theory and Practice*, McGraw-Hill, New York, 1936.

Upholds the principles of conservatism and prudence necessary for sound bank management. Written after the banking collapse of the early 1930's, it recognizes that government intervention promoted lax management practices.

Harwood, E. C., "The Lost Art of Commercial Banking," in *Cause and Control of the Business Cycle*, American Institute for Economic Research, Great Barrington, Massachusetts, September 1974, pp. 77-82.

Excellent history of the rise and fall of sound commercial bank lending practices. Only free banking based on the real-bills doctrine and gold reserves can preserve sound money and banking, and indirectly, economic prosperity.

Merris, Randall C., "Business Loans at Large Commercial Banks: Policies and Practices," *Economic Perspectives*, Federal Reserve Bank of Chicago, November/December 1979, pp. 15-23.

Traces the historical fall of the real-bills doctrine. Banks began making term loans in the late 1930's, primarily due to regulatory restrictions against the underwriting corporate debt securities, government deposit insurance (lowering the need for liquidity), and the central bank's willingness to discount more liberal varieties of bank paper.

Redlich, Fritz, *The Molding of American Banking: Men and Ideas*, J. Hafner Publishing, New York, 1951.

The most comprehensive history of bank management principles and practices ever compiled, covering U.S. banking from colonial times to the 1950's. Management practices were much more conservative prior to the establishment of central banking than after it.

Trescott, Paul B., *Financing American Enterprise: The Story of Commercial Banking*, Harper & Row, New York, 1963.

A concise survey of U.S. bank lending practices in the century after the National Banking Act of 1863. In the 50 years prior to the Federal Reserve, bank lending was short term, primarily for productive and trading purposes, and coincided with the Industrial Revolution. In the 50 years since, it was longer term, increasingly for government financing and other consumption purposes, and coincided with two World Wars and the Great Depression.

## XV. Legal and Legislative Aspects of Money and Banking

Cobb, Miles A., *Federal Regulation of Depository Institutions: Enforcement Powers and Procedures*, Warren, Gorham & Lamont, Boston, 1984.

Sourcebook tracing the history, scope, and particular laws and provisions of Federal intervention in banking. Shows that banking is the most regulated industry and that the regulations have grown more extensive over time.

Holzer, Henry Mark, *Government's Money Monopoly*, Books in Focus, Inc., New York, 1981.

Limitations on government intervention in money and banking set by the U.S. Constitution were overcome by 2 centuries of legislative fiat and Supreme Court decisions leading to a government money monopoly, the confiscation and prohibition of gold, and extensive intervention in banking. Excellent source for documents and cases pertinent to the legal aspect of U.S. monetary history. Proposes a constitutional amendment separating government from money and credit.

Manne, Henry G. and Roger LeRoy Miller, *Gold Money and the Law*, Aldine Publishing, Chicago, 1975.

Focuses on the legal treatment of gold in U.S. money and banking history, particularly the government seizure of gold and the abrogation of gold clauses in contracts in the 1930's.

Samuelson, Paul A. and Herman E. Kroos, *Documentary History of Banking and Currency in the United States, Volumes I-IV*, Chelsea House Publishers, New York, 1983.

Primary documents from U.S. history dealing with government intervention in money and banking, placed in a context of the economic conditions at the time and the major considerations influencing the intervention.

Viera, Edwin, Jr., *Pieces of Eight: The Monetary Powers and Disabilities of the U.S. Constitution*, Devin-Adair, Greenwich, Connecticut, 1983.

An analysis of the origins and meaning of the monetary provisions of the U.S. Constitution and of every significant legislative and Supreme Court decision on U.S. money and banking from the standard of their constitutionality. Shows why the present Federal Reserve System and the government's money monopoly are unconstitutional. An indispensable legal foundation for the restoration of sound money and free banking.

## XVI. Banking Statistics

The following sources provide the basic raw material and statistics reflecting the financial condition of the banking system.

*All Bank Statistics, 1896-1955*, Board of Governors, Federal Reserve System.

*Historical Statistics of the United States: Colonial Times to 1970*, Two volumes, U.S. Department of Commerce, 1975.

*Statistical Abstract of the United States*, Volumes for 1977-1989, U.S. Department of Commerce.

*Banking and Monetary Statistics, 1914-1941*, Board of Governors, Federal Reserve System, 1943.

*Annual Reports*, Comptroller of the Currency, 1910-1965.

*Annual Reports*, Federal Deposit Insurance Corporation, 1937-1965.

*Annual Reports*, Federal Reserve Board, 1914-1989.

*Federal Reserve Bulletin*, Federal Reserve Board, 1914-1990.

*Moody's Finance Manual*, 1946-1989.

*Review of Bank Performance*, Salomon Brothers, various issues, 1979-89.

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