

Institutional Constraints in New York and New England: Free Banking and Monetary
Crises 1811-1863

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Abstract

INSTITUTIONAL CONSTRAINTS IN NEW YORK AND NEW ENGLAND: FREE BANKING AND MONETARY CRISES 1811-1863

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Most interpretations of American free banking experiences in the nineteenth century focus on the failure of what is commonly believed to have been an experiment in unregulated banking. The thesis advanced in this work states that not only was free banking a strictly regulated system, but that the reasons for its failure stem directly from the regulations themselves and from the regulatory ties between bond collateral requirements for competitively issued redeemable banknotes and a large volume of government debt which was essentially used as a reserve by free banks.

To illustrate the impediments presented by free banking laws, free banking experiences in New York are compared to bank experiences in New England under the Suffolk System. It is argued that the New England regional banking system that developed under the Suffolk was essentially a laissez-

faire banking system, producing stability and safety for noteholders and depositors through market-driven behavioral constraints on the banks. New York, arguably the best example of American free banking, compares unfavorably on both stability to the more laissez-faire system. The implications of this reexamination of free banking and the recent debates over the causes of instability in the free banking era have a bearing on modern reconsideration of deregulation and the self-regulating properties of a laissez-faire monetary system in the areas of stability, safety, and adequacy of banking facilities.

Introduction

The purpose of this work is to inform contemporary thinking on money and banking with a radical reinterpretation of American banking experience, an experience which has traditionally been cited as a defense of centralized banking. The experiences of New England banks from 1811-1863, and the experiences of New York free banks during the free banking period of 1838-63 are the subject of this study. The 1811-63 period in American banking is characterized by competitive, redeemable currency, issued by individual, profit-oriented banks in the absence of a monopoly central bank. The popular interpretation of free bank experience is misleading because it has been cited as an example of unregulated banking, with free market forces dominating bank behavior and ultimately creating chaos, fraud, and failure in the banking system. This study will show that the popular conception of what free banking was, and how it operated, is not supported by the facts.

While free banking has traditionally meant firm entry without a charter, it should not be confused with a lack of industry regulation. Quite the contrary. In general, free banking legislation substituted one set of regulations, which included mandatory bank charters, for another set which did not. Free banking regulation reduced the discretionary power of bank managers on the one hand, allowing easier entry into the industry on the other. The price of easier entry, therefore, was more stringent regulation of bank behavior. Easier entry was known as free banking because chartering requirements had been dropped, but it is clear that New York free banks were strictly regulated during the free banking period.

For reasons that will become clear in the text, the banking system that arose in the New England states of Massachusetts, Connecticut, Rhode Island, New Hampshire, and Vermont between 1825 and 1863, under the title of the Suffolk system, has been designated as a laissez-faire banking system in this study. The term laissez-faire banking is used to distinguish bank behavior dominated by market forces from the free banks, and from the laws dominating their behavior. The term laissez-faire, then, does not imply an unregulated banking system, merely one in which competitive market forces rather than legal restrictions produce the relevant operating constraints.

The Suffolk system comprised a regional New England

monetary system of competitive, redeemable currencies. It is interesting for comparison because it represents a laissez-faire banking system operating concurrently with the New York state free banking experiment, and with the second U.S. Bank as well. While entry requirements, including charters and other legal restrictions, existed in New England throughout the Suffolk period, this study will show that competitive market forces rather than legal limitations generated the relevant constraints on bank behavior. It is particularly clear in the area of note issue that competition forced tighter restrictions on bank behavior under the Suffolk system than did free banking laws on banks in New York.

The ultimate value of this study lies in its ability to help re-assess the roles of central banking and monetary policy in a modern economy. This comparative history reveals that the market regulated, spontaneous order approach was both more flexible and more stable than the free banking, directed order approach in New York. From a modern perspective, the free banking era has been misinterpreted as an experiment in unregulated banking. Even in money and banking texts, the analysis of free banking is typically identified as a free market experiment that failed. Much of our modern reluctance to allow market forces to grapple with monetary problems, problems in

financial institutions, and ultimately in cyclical problems, may be traced to this presumed failure of markets to regulate the monetary system. In consequence, the whole notion of a self-regulating monetary system has long been out of favor. Proponents of central banking have been able to draw many arguments favoring monetary management, monopoly central banking, and monetary fine tuning as a result.

A closer look at the historical evidence does not support this modern view. The long-presumed identity of free banking and market-directed banking amounts to a historical myth. This study rejects the mythical link between free banking and an unregulated banking industry. In doing so, it leads us to doubt the rationale so often used in support of a monopoly central bank. It will also bring into question the need for, and appropriateness of, monetary policy in a market economy. And finally, it demonstrates through historical evidence that a decentralized, competitive monetary system can indeed produce desirable social consequences: voluntary arrangements and institutions which promote sound money and institutional safety.

Chapter Summaries

Chapter 1 surveys the recent debate over sources of instability during the free banking era. It points to the contemporary importance of the historical free banking episode to current scholars and policymakers. Launched by Hugh Rockoff's thesis The Free Banking Era: A Re-Examination (1975), the modern debate stretches across a number of further contributions by Arthur J. Rolnick and Warren E. Weber (AER, 1983; JME 1984; FRB Minneapolis Working Paper, 1985), also by Lawrence H. White (1985), Selgin and White (1986), and by Selgin (1988). The proposed sources of instability range from poorly-designed free banking laws in the Rockoff thesis to exogenous shocks in the Rolnick and Weber scenario to regulation itself in the White and Selgin presentations. Chapter 1 takes up strands of thought on banking instability in the earlier works and points to as yet unanswered questions and problems in the earlier works. As such, it provides the first step toward a more coherent explanation of free banking problems and free banking alternatives.

In Chapter 2 several banking theories are briefly reviewed. First is a theory of free banking based upon the Scottish model (1800-45) in White (1984a), and the American model in Selgin (1988). The model gives a clear picture of the incentives facing bank managers in a

competitive, redeemable currency system with open entry and no monopoly central bank. The operating characteristics of a free banking system will be of special interest when we discuss the history of the New York free banking system in Chapter 3.

Chapter 2 also contains a more lengthy discussion of the incentives facing bank managers under a laissez-faire banking arrangement. It provides insight into bank behavior in a laissez-faire atmosphere. While entirely laissez-faire banking did not exist in the American experience, laissez-faire conditions are approximated when market incentives are the relevant constraints facing bank managers, making legal restrictions (which may well exist) essentially irrelevant to bank behavior. In the historical discussion in Chapter 4 we find the embodiment of laissez-faire banking in the Suffolk system of 1825-63.

A final part of the theoretical discussion in Chapter 2 examines the divergence between free banking in the Scottish form and in the American version. Free banking theory as presented in the White model does not, strictly speaking, apply to what we have called free banking in nineteenth century America. The constraints facing American free bankers were likewise different from those facing Scottish free bankers, and this difference, it turns out, is quite marked. A general assessment of the success or failure of

The free banking idea depends critically upon which version of free banking one is discussing, so it is important to point out the differences at the outset. These differences, too, help to explain the New York free banks^T experiences.

Chapter 3 deals primarily with the New York free banking system instituted in 1838 with the New York Free Banking Act. Earlier banking systems, notably the ordinary charter system and the safety fund system, are briefly detailed because of their influence on free banking reforms as they finally emerged in New York state law. According to Men and Ideas: The Molding of American Banking (Redlich 1971), American free banking was a melding of political as well as theoretical ideas, which explains in part the differences between the Scottish version upon which it is ideally based and the American version(s) which finally emerged.

As the history in Chapter 3 demonstrates, free banking in New York, considered successful among the free banking states, compares unfavorably with the New England Suffolk system in critical areas such as par redemption of notes, continuity of redemption, or bank failure and loss rates over the period 1837-63. It is also abundantly clear through detailed discussion of free banking law, that free banking is not an example of unregulated banking. In practice, the law placed more restrictions on bank behavior than had earlier “restraining acts” in New York state.

The differences in performance of banks in New York vs. New England is demonstrated through a case history approach. Chapter A draws comparisons between the two regions using this approach. The case history can truly be appreciated in a comparative study of this type, particularly when an abundance of historical evidence is available.

The final discussions in this chapter consist of a reinterpretation of New York free banking as an essentially regulated banking system experiencing problems from the regulation itself and from the destabilizing effect of discretionary government debt as reserves. Instability due to regulation is embodied in the bond collateral requirement which became wedded to American free banking through American concerns for safety, as well as an outmoded adherence to elements of mercantilist thinking. In addition, regulation tends to lend an inherent presumption of safety which was not, in many cases, justified. Instability due to discretionary government debt is certainly linked to the particulars of free banking law, primarily through the bond collateral requirement, but caused problems on its own as well. Basically, Treasury obligations were used as reserves upon which banks issued additional notes of their own, eventually and predictably driving the liquidity crises which regularly surfaced in the state. Interestingly, until New England banks began

subscribing to large quantities of Treasury debt-as-reserves, they were almost entirely insulated from severe monetary disruptions. Thus New England escaped chronic liquidity and institutional problems until well into the 1850^s, when the Suffolk system was supplanted as the regional clearinghouse system in New England.

Together, the rigidity of its regulatory structure and the incentives that this created for New York bank managers, plus the use of Treasury obligations as a basis for additional note issue by New York banks, left New York free banks in a relatively unstable and vulnerable position when compared with banks in New England. This in spite of the fact that New York is touted as the premier example of American free banking.

Chapter 4 is a detailed presentation of banking conditions and experiences in New England from 1811-63. The beginning date is chosen because it marks the expiration of the charter of the first U.S. Bank, and the period during which many of the conditions which strongly affected New England banking in the 1820's and 1830's had their beginnings. Influential during this period, for example, is antiwar sentiment and the refusal of New Englanders, and New England banks in particular, to subscribe to Treasury bonds. The greater part of the chapter, however, is devoted to developments in New England banking during the tenure of the Suffolk system. The importance of the Suffolk system in

shaping financial institutions and their operation in New England can hardly be overestimated. Since the Suffolk system created a regional monetary system not unlike a central bank in its clearinghouse operations from 1825-63, it provides us with as clear a historical model as is available for the American experience of voluntary free market arrangements creating sound money and a relatively stable economic environment. The performance of New England banks over the period 1825-63 (at which date competitive currency was eliminated through the National Banking Act), compares very favorably to the free banking system of New York, the best free banking state in the country. Factors contributing to the success of the Suffolk system include its market directed behavior and a notable absence of Treasury debt as a means of multiplying note issue in New England .

The concluding chapter of the dissertation is both a means of summing up the arguments and evidence that have been presented to the reader thus far, and a way of indicating in what directions further work might proceed. There are many linkages between the subject of this study and some of the industrial organization and law and economics literature (Klein and Leffler, JPE 1981; Klein, AER 1980; Telser, JLE 1986; Telser, JB 1980, to cite a few). There are also strong suggestions throughout this

study, and particularly in the discussion of the historical debates, of a groping toward a business cycle theory that is typically Austrian in the Hayekian (and modern day) Austrian tradition. And the strongest present day contribution of this work is in its ability to point to the unintended economic and institutional consequences of a monopoly bank of issue, and discretionary monetary policy, in the presence of a large government debt, as well as to the alternatives in a laissez-faire environment. If the historical lessons can help us to understand current problems in monetary policy and institutional reform, we will have pointed the way toward a solution to those problems. As a radical reinterpretation of the nineteenth century American banking experience, it is hoped that this study demonstrates the viability of a market order in money and financial institutions.

Appendix A is a selected survey of contemporaneous thought on the prospects for free banking and on its performance. From our perspective, these historical debates have much to offer. The development of the arguments for and against free banking, and especially those that most strongly influenced its final form, can more fully be appreciated in light of the historical record just presented. Appendix A discusses the views and arguments, and the reasoning processes, of some of the most outspoken as well as some of the best free banking theorists speaking

in the American case. The views of H. C. Carey, Samuel Leggett, Richard Hildreth, and John McVickar are among those discussed. Modern day arguments for reform are better understood if we first understand the nature of past failures and successes. If this is true, then the value of these historical arguments lies in our ability to apply our understanding of them to the contemporary debate over the role of the Federal Reserve, and to other issues facing policymakers. The historical debates underline many issues which are still part of present day discussions.

Notes to [Introduction] Chapter Summaries

1. See L.G. Telser, "A Theory of Self-enforcing Agreements" in Journal of Business (1980 vol. 53, no. 1). Also Klein and Leffler, "The Role of Market Forces in Assuring Contractual Performance" in Journal of Political Economy (1981, vol. 89, no. 4); and Klein, "Transactions Cost Determinants of 'Unfair' Contractual Arrangements" in American Economic Review (1980, vol. 70, no. 2).

2. This literature includes a large volume of work by theorists in the Austrian tradition who have written extensively on capital theory, especially Bohm-Bawerk, Hayek, and Mises, plus the modern day Austrians: Rothbard, O'Driscoll, and Garrison, among others.

Chapter 1: The State of the Current Debate

This chapter is an overview of the recent debate over the source(s) of instability during the free banking era. This debate chiefly concerns the U.S. free banking period 1838-1863. Rekindled by Hugh Rockoff's thesis *The Free Banking Era: A Re-Examination* (1975), the modern debate stretches across a number of further reexaminations by Federal Reserve economists Arthur J. Rolnick and Warren E. Weber (AER 1983; JME 1984; FRB Minneapolis Working Paper, 1985; Cato Journal, 1986), with rejoinders by Rockoff (AER, 1985) and by White (1985 and 1986). Subsequent discussion continues to the present day (Selgin and White, 1986; comments on Selgin and White by Friedman, 1986). Significant contributions to the renewed interest in the free banking period and in laissez-faire banking in the United States, while not directly contributing to the debate over sources of instability in the free banking era, have also been made by Van Fenstermaker, Filer, and Herren (JEH, 1984), Van Fenstermaker and Filer (JMCB, 1986), by Selgin (1985, 1986), O'Driscoll (1985a, 1985b, 1986a, 1986b), and by O'Driscoll and Short (1983).¹ Finally, there is a

growing literature of examinations of the Canadian colonial monetary system, which may offer some interesting comparisons to its contemporary American counterparts

(Redish, JEH, 1984; Wier, unpublished dissertation, Yale University) ²

The importance of continuing this discussion over the sources of instability in nineteenth century American banking becomes clear in light of the apparent instability of present day banking institutions. Questions of reregulation vs. further deregulation of the industry command the attention of policymakers today, much as they did in the nineteenth century, and for many of the same reasons. Not only is depositor safety at issue, we presently see large segments of the financial industry perched precariously on the edge of collapse. And suggested reforms range from a very important role for regulation seen in Rolnick and Weber, and to some extent in Rockoff, to a full-blown laissez-faire approach implied by Selgin, White, and others. Informing ourselves about crises and solutions in the past, therefore, will hopefully enable us to choose more prudently a course for the present and future. Therein lies the significance of studying earlier successes and failures.

Rockoff

Hugh Rockoff, in a work entitled The Free Banking Era; A Re-Examination (1975), takes as his starting point the traditionally held belief that American free banking failed because free banking states suffered from frequent and widespread instances of “wildcat” banking. This standard interpretation of the history suggests two general claims about alternative banking systems and monetary reform. The first is the belief that more highly regulated systems performed better than did relatively free banking, and the second, that this performance was one of the central motivations for ending free banking with the reforms of the National Banking Act in 1863.

Rockoff contends that the evidence used to support these two claims has been exaggerated. His thesis questions both the quantitative and the theoretical arguments leveled against free banking. There is little quantitative evidence, according to Rockoff, that instances of wildcat banking were either as frequent or as harmful as is usually supposed. In addition, he believes that wildcat banking could have been prevented within the free banking context. This would allow states to reap the significant benefits of the system without fear of corresponding harms (the perceived benefits are discussed later in this chapter).³ Rockoff takes as his goal, then, to re-examine the

quantitative as well as the theoretical arguments surrounding the free banking controversy and to recast the discussion in terms of modern monetary theory.

Rockoff states that traditional interpretations of the period do not fully appreciate the role played by specific laws in their ability to create a legal climate either conducive to wildcat banking and instability or prohibitive of it. Free banking laws, according to Rockoff, have not been adequately analyzed for their differences from state to state, thereby encouraging historians to treat all free banking states as equivalents in free banking law. He contends that lumping all of the states together trivializes the legal restrictions aspects of the wildcat problem. In addition, failure to appreciate individual differences among states' free banking laws, Rockoff fears, may lead to a failure to appreciate some benefits which he perceives in free banking law: namely, ready markets for state bonds and possible efficiency properties in the allocation of capital. He does not pursue the implications of the free banking system on the market for government debt, or of the impact of government debt on the free banking system. The latter strand is explored further in chapters 3 and 4.

It is clear from the opening of the Rockoff discussion that the study is focused on the prevalence and the activities of the wildcat banks. In other words, Rockoff sees as the primary drawback of free banking laws their

ability in some cases to create a climate conducive to wilddcatting. By implication, then, monetary stability in a competitive issue, redeemable monies environment can be achieved through proper regulation. As an example of this theory, the New York state free banking experience is contrasted with the free banking experiences of states such as Michigan, with the relative success of New York attributed to its superior free banking law. If Rockoff's conclusions are correct, appropriate legal restrictions on the industry play a critical role in banking stability and in depositor and noteholder safety. Rockoff defines a wilddcat bank, for purposes of his study, as follows: "...a bank that issued notes in much greater volume than it could continuously redeem, and that came into being as a result of a liberal entry provision in free banking law.⁴ Apparently the issuer is not concerned with the occasional embarrassment that the bank might suffer if adverse clearings reveal temporarily insufficient currency reserves. Instead, the deliberate attempt to reap short-run profits is the perceived motivation for the wilddcat banker (the model he develops allows him to differentiate between states with "good" and "bad" free banking laws, but does not treat individual banks). We assume that the model of bank behavior governing the actions of a non-wilddcat individual bank, and the implications of such a system, are reasonably

consistent with White (1984a), and would ordinarily conform to profit-maximizing behavioral assumptions (see Chapter 2 of this paper for a discussion of the laissez-faire banking model).⁵

In comparing the Rockoff study to other investigations of the free banking era, it becomes apparent that criteria by which to evaluate bank failure vary somewhat from author to author. For Rockoff, bank failure resulted from the inability of the bank to redeem noteholder claims in specie reserve. Since depositors and shareholders were not ordinarily protected by the law, losses to these groups must have occurred as well, but the extent of the losses are difficult and often impossible to ascertain.⁶ The Rockoff study was primarily designed to deal with the widely-held belief that the free banking era was rife with wildcatting, and that losses due to wildcatting led to the rejection of free banking as a viable system. While the interest in wildcat banks is too narrow for this study, Rockoff's conclusions about the wildcats are nevertheless important to questions of the role of regulation in a monetary system. In Rockoff's analysis there are two cases in which bank failure results from the ability (and intent) of entrepreneurs to reap short-run profits while defrauding the public.

Short-Run Wildcat banking: Rockoff's Case 1

Free banking laws, regardless of the state in which the

free bank was established, all required that the bank's owners deposit with the state certain eligible bonds as collateral on the notes it would issue. Laws differed from state to state in the particulars of which bonds were eligible, but the universal pattern of free banking laws followed the model of the New York state law in general design. Rockoff describes two cases in which the bankers have the opportunity to defraud note holders. In the first case the bank keeps zero specie reserve and plans to be in business no longer than about a month. Bankers buy the requisite bonds and deposit them (some specifics of the New York state Free Banking Act are contained in Chapter 4) with the state; notes are issued; since there are zero reserves, the notes become redundant immediately, breaking the bank. Rockoff claims that the banker gains if the par value of the bonds exceeds their market value (assuming interest on the bonds is insignificant) when the bank is broken. Assuming a 100% bond collateral requirement on the notes, an example of this case might work as follows: the bankers purchase \$100,000.00 worth of bonds when market equals par value. Subsequently, \$100,000.00 worth of loans are issued. The bank holds mortgages or collateral claims on the loans worth \$100,000.00, balanced by its \$100,000.00 worth of bank note liabilities. There are zero specie reserves. As the notes begin to return for redemption, it is evident that

noteholder's claims cannot be met. This breaks the bank and forces the sale of the collateral bonds left on deposit with the state. If par value of the bonds exceeds market value, some of the note holder claims will not be honored. Note holders will have to absorb losses. This much is clear. What is not so clear in the Case 1 Rockoff scenario is what the banker gains. In this case, the only assets which the banker has in his possession are the claims to collateral from the bank's loan customers, plus any portion of the loans which may have been repaid in specie within the month.⁷ Repayments in the bank's own notes simply represent a reduction in its ultimate liabilities. If the bankers can maintain their possession of collateral claims (mortgages, etc.) from their former customers, they stand a chance of realizing non-liquid profits. We presume that since the eligible bonds deposited with the state are not in the banker's possession, that they cannot simply avoid the market sale of the bonds and abscond without any repayment to note holders at all. Thus the extremely short-run view of the wildcat bank might show the bankers realizing short-run non-liquid profits as a result of their activities.

Short-Run Wildcat Banking: Rockoff's Case 2.

Let us take another variation on Rockoff's short-run scenario into consideration, however. Suppose that after the bank is broken (still in a one month time horizon) and the eligible bonds sold in the market, that market price

exceeds par value. The bank holds zero specie reserves in this extreme short-run case. Assuming that the bonds were purchased at par value = market value, all noteholders can be repaid, and the bankers can realize a capital gain from the sale. This is owing to the fact that limited liability provisions and lack of depositor or shareholder protection existed. Assuming that depositors and shareholders are not successful in efforts to recoup their losses, this series of events might possibly occur. In this case, all losses are absorbed by depositors and shareholders, none by bankers or noteholders. Speculation in the collateral bonds is financed by these depositors (and possibly by shareholder equity), while the redundancy of notes serves no other function than to force the speedy liquidation of the collateral bonds.

Given the possibility of either a fall or a rise in the price of the collateral bonds, what would induce a banker to behave as a wildcat in the extreme short-run? The possibility of earning highly illiquid profits vs. cash profits are surely not equally attractive (standard economic theory supports this).⁸ Even if the fraudulent banker manages to escape town with deeds to local properties handed over as security against loans, there is considerable risk attached to attempts to sell or use the properties himself. The question remains, then, in an

atmosphere of uncertainty, why would a banker undertake the extreme short-run wildcat venture?

The solution to the puzzling behavior suggested by Rockoff's study lies in the fact that uncertainty about future market prices of eligible bonds may not have played a prominent role in bankers' calculations. Since the banker could not know in advance how bond prices would move, we conclude that the destabilizing influence, so far as the free banks are concerned, occurred at the bond collateral deposit level.

The significance of the Rockoff investigation into the behavior of the wildcat banks in the extreme short-run (as well as the longer run, as we discuss in the next section) is in the evidence of this type of regulation-induced destabilization. When banks are allowed under this scheme to deposit bonds with a par value $>$ market value, issuing notes on the par vs. the market value, the opportunity to profit from price differentials and the incentive to defraud are created.⁹

In fact, given the uncertainty about future bond prices, especially the possibility that they may increase in the market, we could plausibly argue that the incentive would be to defraud as quickly as possible.¹⁰ On the other hand, evidence on selected bond prices and bond price movements is presented in Chapters 4 and 5, and depending upon the particular eligible bonds and the particular state, the problem of increasing market value may be overestimated here.¹¹

Evidence suggests, then, that falling market value relative to par was the more likely inducement to wildcat.

Rockoff Evaluated: The One-Year Wildcat Banks

Rockoff's second case of banker fraud and bank collapse is perhaps more plausible. Assuming again that the bonds for collateral deposit are purchased at a point in time at which market value equals par value (Rockoff is never specific on this point), the bank deliberately issues more notes than it intends to redeem in specie at par. Again depending upon the movement of bond prices, note holders may or may not ultimately be able to redeem the bank's notes at par. Here the gains to the potential wildcatter are twofold: bankers can count on earning the promised rate of interest on the bonds during the period in which the bank remains in business. For this second type of wildcat, Rockoff believes this period will generally be no longer than one year. The wildcat bankers may also gain the value of deposits held plus any securities with which they successfully abscond. The problems of redemption or liquidation of bonds, deeds, and the like, present in the first case, apply here as well. Rolnick and Weber, in their critique of the analysis of wildcat banking presented by Rockoff, also note the pragmatic difficulties facing the wildcatter (e.g., has to get out of town before he is lynched, can't return or operate in close-by neighborhoods,

etc., in 1984, pp. 272-3).

Government Debt and Wildcats

What is the Rockoff view of the role of government debt in the performance of banks during the free banking era? The author only hints at this subject, preferring instead to focus attention almost exclusively on the conduct of the wildcat banks. As Rockoff states:

When we consider the banking system as a whole it is clear that under free banking it was the quantity of eligible bonds that determined the supply of currency, thus linking together the deficit spending policies of the states and the supply of currency. There was no assurance, of course, that the deficit spending policies would prove optimal from the point of view of note holders. This point does not always seem to be understood by the framers of the free banking laws. In particular, legislators sometimes failed to realize that by making the debt of other states eligible, they were placing the stock of currency in their state at the mercy of the deficit spending policies of other states. (1975, p.10)

It is not clear in his work whether Rockoff might be suggesting, albeit in a roundabout manner, that state debt itself was a force creating instability in the free banks. Throughout, his main thesis is that bad laws in individual states enabled and encouraged wildcats to flourish. We believe that the reason state debt is overlooked by Rockoff lies in (1) an interest in a specific question about wildcat banks, and (2) a possible misapprehension, suggested in the quote above, regarding the supply of bank money under free banking. As White notes in Free Banking in Britain, placing notes into circulation is one thing, maintaining them quite

another (1984, p.2). Rockoff acts as if banks were free to issue any quantity of notes they desired, as if the mechanism of adverse clearings were nonexistent as a deterrent to overissue, but suddenly became operational when the bank was broken. This misapprehension of the role of adverse clearings as a kind of last-resort fuse rather than a sensitive regulator of bank issues leads Rockoff to assume that the supply of bank money is determined apart from the demand for bank money. As Selgin states:

Free banking is, instead, an essential instrument for maintaining equilibrium in the markets for bank credit and inside money. Free banking ensures that adjustments, both upward and downward, in the supply of inside money are in accordance with changes in consumers' post-income demand. Its role is analogous, not to that of a mere fuse in a wire circuit, but to that of a sophisticated regulator which constantly adjusts the flow of current to its desired level. (1984, p.32)

Thus while it is correct to assume that notes can be issued based upon the deficit spending created by the various states or the federal government, it is important to appreciate that this will ultimately determine the market value of the notes, and not their supply in circulation.

Redundant notes are always removed through the clearing process or by bank failure.¹² Finally, questions arise on theoretical grounds concerning the validity of Rockoff's analogy of the minting and seigniorage of bullion, and the monetary inflation created by official overvaluation of the

commodity money in medieval times, and on the other hand, to modern government-created debasements.¹³ It is true that official overvaluation of the bonds (relative to their market value) will result in more of the extant bonds being “minted” into money. Unlike the supply of bullion, however, the supply of such bonds is discretionary, and the benefits to such discretion always accrue first to the issuer (state or federal government).¹⁴ It is not quite such an easy matter to increase the supply of bullion in the former example. In addition, government bonds are ultimately liabilities, not assets.¹⁵ They must ultimately be exchanged for claims to wealth in the form of the circulating media. When the exchange takes the form of a full-bodied commodity money, no monetary inflation, with its accompanying problems, can result. When the government exchanges its liabilities for claims to a fiat medium under its control, however, the result is clearly inflationary and can be seen to create many of the problems detailed in the history of New York free banks.

What conclusions can we draw from the Rockoff study regarding the role of government debt in the stability of the free banks? Rockoff's analysis shows a larger number of failures (banks ultimately unable to repay note holders at par) in the 1840*s (30 banks), with losses from bond collateral security minus bank note liabilities totalling \$610,743.88. The number of banks closing in the next decade was almost as great (27) with

losses (assumed net) of around \$73,000. Since comparable calculations are not included for the two periods we infer from the discussion that the author believed the second period was the more stable of the two.¹⁶ Rockoff clearly favors the laissez-faire approach to banking during this era, but his study highlights the positive aspects of government debt in the scheme of free banking. For Rockoff these include a ready market for state debt, primarily as a means of promoting economic growth. By adding “foreign” (out of state) bonds to their eligible list, states could encourage reciprocation, also increasing the market for their own debt. States might also limit interest costs on their own debt.¹⁷ Nevertheless, the Rockoff study is inconclusive on the role of the debt and its assumed advantages. As the author states: “The strongest argument for the bond security system was that there was no alternative that was clearly superior and that was also feasible given the prevailing economic and political doctrines.”¹⁸ It remained for successive studies to pick up the arguments advanced by Rockoff and advance the discussion beyond the narrow confines of wildcat banking.

Rolnick and Weber's Response to Rockoff

Modern interest in the historical status of the free banking era following the Rockoff study resumed with the work of economists Arthur J. Rolnick and Warren E. Weber. In a series of articles on selected free banking states, Rolnick and Weber examine a separate but related question based upon the findings in the earlier Rockoff study. Rockoff's primary conclusion was that the variation in individual state law was responsible for the diversity of experience with wildcats in the free banking states, thus giving a legal/institutional explanation to the wildcat problem. Rolnick and Weber take the division among states with "good" vs. "bad" free banking laws basically as "given" from Rockoff and select four for their initial study—New York as the best, Minnesota as one of the worst, and Wisconsin and Indiana as mixtures of successful as well as wildcat bank experience. In an article entitled "New Evidence on the Free Banking Era" (AER, 1983) they reexamine the traditional views of free banking: (1) that free bank failures were numerous, (2) that free banks operated for short periods of time, and (3) that the free banks' notes were unsafe, with large losses to note holders accruing. While this study follows exactly the same research program used by Rockoff, it does so on a much narrower scale. The study of the four states of New York, Minnesota, Indiana, and Wisconsin lead the authors to similar conclusions.

some areas. It is worthwhile noting that Rolnick and Weber, unlike Rockoff, distinguish between a closed bank and a failed bank in their study. A closed bank is one which simply ceases operations. Closed banks are not necessarily counted as failed banks, however, unless they are also unable (ultimately) to redeem their notes at par.¹⁹ Disruptions caused by losses to depositors and/or shareholders are important considerations, but unfortunately not considered in the study. Because the law made no provision for shareholder and depositor protection, analyses of losses unfairly ignore them.

Like Rockoff, Rolnick and Weber find that the losses associated with the free banks have been overstated. Failed banks in the four states accounted for about one third of all of the free banks that eventually closed. In New York state (the state with the best free banking record), 36% of the free banks that had opened between 1838 and 1863 closed. Rolnick and Weber calculate that 8% of the free banks that opened in New York were unable ever to redeem their notes at par. This evidence supports the Rockoff thesis that New York state was one with relatively “good” free banking laws, as the remaining three states studied all showed higher incidences of closings and failures (in percentage terms).²⁰ In addition the Rolnick and Weber study refutes the traditional view that free

banks were generally short-lived; the mean operating span in New York was 7.9 years in their study.²¹ Finally, the article examines the losses to noteholders in the free banks. The formula used to determine the losses (which differs from the Rockoff technique) uses as a basis the bank condition reports for each free bank in each of the states studied. They take the circulation in each report in each free bank and multiply the circulation by the final redemption rate (presumably per reporting period). The sum of this calculation for all free banks on a given report date was divided by the total circulation of all banks (free banks plus other banks) for which redemption information was available. This measure is taken as an indication of the relative safety of free banks' notes vs. notes of other banks, and Rolnick and Weber interpret their results as “the expected value of a randomly selected bank note held until 1863 as of the date of each condition report.”²² Their results are therefore stated in aggregate terms—the expected value of individual bank's notes are not detectable in the final measure. The result does analyze which state's legal/institutional setting may have been the safest for note holders. Their result indicates that the expected value of a randomly selected New York state bank note never fell below \$.99/\$1.00, and was at par for some of the years under study. Again New York state compares more favorably than do Minnesota, Indiana, or Wisconsin on the issue of

safety. Interestingly, however, the calculations on average losses to note holders (total losses divided by total circulation of the failed banks) shows New York state with the second greatest loss per dollar on the failed banks for the period studied. The state with the highest average loss was Minnesota, at nearly 71%. On the other hand, we might regard Minnesota's experience with some questions, since free banking laws were not adopted in the state until 1858, lasting a very short time by comparison to the New York experience (1838-1863). And despite its long experience with free banking, average losses on the notes for failed banks in New York remained at 25-26% throughout the period.²⁴ The study shows that the smaller percentage of failures in New York resulted in greater losses per dollar held than in either Indiana or Wisconsin.²⁵

In concluding their initial exploration of free banking phenomena, Rolnick and Weber suggest that the problems with free banking may stem either from inherent instability (suggested by Friedman, 1960), or by differences among free banking laws (a la Rockoff), or possibly from unique features of the free banking states. While the evidence gathered in the first study lends general support to the Rockoff thesis, it also paints a brighter picture of the entire era, based on the reinterpretation of evidence gathered from four of the free banking states. The authors

do not regard the wildcat/legal variations explanation offered by Rockoff as a sufficient explanation of free banking failures, but neither do they claim this for their own preliminary study. Rockoff's Rejoinder:

In a reply appearing in the American Economic Review of September 1985, entitled "New Evidence on Free Banking in the United States" Rockoff criticized the Rolnick and Weber methodology and conclusions.

...while it is important to show that the actual losses were smaller than many have imagined, the losses and failure rates presented by Rolnick and Weber will not by themselves prove entirely persuasive. ...Part of the problem, I believe, is that Rolnick and Weber present these experiments as repeated trials of the same legislation. Here I show that if one looks carefully at the legal and historical circumstances in which each experiment took place, a case can be made that will satisfy even the skeptics who remain unconvinced by the losses and failure rates presented by Rolnick and Weber, (p. 886)

The central problem in antebellum banking, explains Rockoff, was implementing free entry and competition in banking while preserving safety and consumer confidence. Institutional means of achieving these goals were limited, and as Rockoff explains, usually lead to greater stringency in secondary reserves (the bonds and debt eligible and required as note collateral). Rockoff therefore stresses the variability of the secondary reserves in determining the effectiveness of the collateral "buffer." The less volatile and variable the collateral bonds, the more confident consumers could be

about the safety of the bank notes. To this end, some states (particularly New York) eventually excluded all bonds but their own as eligible.²⁶ If states had within their grasp the means to stabilize and secure the safety of free banks, possibly by limiting eligibility to “safe” bonds, free banking might have produced benefits associated with competition and more open entry that would compare favorably to modern efforts to achieve monetary stability.²⁷

Rolnick and Weber's Further Findings

Research following the exchange with Rockoff in the American Economic Review took a new turn as Rolnick and Weber began to develop a uniquely different perspective on free banking failures. Since the results of previous research, both from the Rockoff perspective and from their own, had so far proven inconclusive, Rolnick and Weber developed a separate theory in which falling asset prices were the locus of the free banking problem. They outline this thesis first in a paper entitled “The Causes of Free Bank Failures: A Detailed Examination” (JME, 1984), and further develop their ideas in a second paper “Instability in Banking: Lessons From the Free Banking Era” (1985, prepared for the Cato Institute Policy Conference, February 21-22, 1985, subsequently published).²⁸

The 1984 work discusses some of the logical problems posed by Rockoff's explanation of free bank failures. In

Rockoff's explanation, state laws were at fault when they allowed the banks to value eligible bonds at par rather than market value, even when the bonds were selling below par. Rolnick and Weber refer to this problem as "absence of market valuation restriction."²⁹ Their own explanation differs from the Rockoff thesis in that it does not rely on fraudulent intent of the bankers in order to arrive at the result--free bank failures. The theory they advance is termed "falling asset prices."

The falling asset prices model (FAP model) presumes that banks were holding portfolios of risky assets. Since notes are short-term liabilities, the ability ultimately to redeem all notes at par was sensitive to the market prices of those assets. Rolnick and Weber posit that the free banks were subject to inherent term structure risk in this case.³⁰

To start the process in motion, Rolnick and Weber assume some external shock which causes market prices of bonds to fall. Once the public is aware of the problem, redemption demand accelerates. According to Rolnick and Weber, the bankers can choose a course of action which will force note holders to bear some of the losses (and thus avoid carrying the entire burden themselves). The bankers need only close the bank and allow the state to make such payments as possible to note holders, using the bonds held on deposit as well as other assets which the bank may own.³¹

The critical value in this explanation is not the value of the state bonds, rather, it is the value of the bonds plus other assets that determines whether failure will ultimately occur. Rolnick and Weber therefore hypothesize that bank failures should occur more frequently when asset prices are falling, and reject the Rockoff explanations of absence of market valuation restriction (the good laws-bad laws hypothesis) or length of operating time.³² The authors use the same four states studied earlier to conduct their tests. The tests essentially involved an attempt to reject the Rockoff hypotheses, and cannot reject them only for the case of Minnesota.³³ In “testing” their own hypothesis, the authors remain satisfied that periods of falling asset prices are consistent with clusters of free bank failures. They therefore conclude that banking practices, per se, were not responsible for free banking failures, but rather the failures were caused by falling asset prices resulting from exogenous shocks to the monetary/macroeconomic system. Here Rolnick and Weber leave an important gap in their thesis by neglecting a consideration of the possible causes of exogenous shocks.

The 1985 and 1986 papers continue the line of thought developed in the earlier work on free bank failures and falling asset prices, partially as an additional rebuttal to Rockoff, partially as an extension of the work on their own

theory begun earlier. In “Instability in Banking: Lessons From the Free Banking Era,” the authors offer a tentative hypothesis about the nature of the “shocks” initiating the monetary crises. A suggested explanation is one of inherent instability in the system based on uncertainty, either extrinsic or intrinsic to the monetary system. Extrinsic uncertainty causes individuals to suddenly and (apparently) irrationally change their demand for banknotes vs. specie (to use the authors' example), creating havoc even for the “good” banks. The causes of wild swings in the composition of the demand for money function may be equally irrational— Rolnick and Weber cite the possibility of “sunspots,” or other seemingly unrelated occurrences. The exact cause is not so much important as the fact that whatever the cause, it is not readily apparent to the analyst. The panic that results is described as a “contagion” and can affect all types of banks, those run poorly and those run well.³⁴

In the same article, Rolnick and Weber build another theory on the second, or intrinsic, type of uncertainty. Some real shock causes the prices of assets in a particular bank or area to fall. This is the onset of the problem. Falling asset prices cause problems directly for only a limited number of banks. Here Rolnick and Weber introduce a corollary: consumers cannot differentiate clearly between the banks that have been affected, and those that have not. This causes a contagious panic similar to the one described

above, and the monetary crisis is in motion. The authors attribute the theory to Freidman and Schwartz in their explanation of the events of 1930 (1963).³⁵

The only counter to such contagious panic, in the face of intrinsic uncertainty and asymmetric information, is sufficient information on the part of bank customers. If customers were fully informed, Rolnick and Weber argue, the panic would not spread beyond the banks experiencing the falling asset prices. Thus the impact of the real shocks would be limited to those banks directly affected, and an unwarranted panic would not be spread across the monetary system. The question remains: did the free banking era exhibit signs of contagion? The authors argue to the contrary, citing examples of bank failures which are presumably candidates for the contagion theory. In light of the thesis concerning the influence of state and federal debt and institutional constraints being developed in this study, it will be interesting to illustrate examples of real shocks which Rolnick and Weber identify as possible catalysts for contagious bank failures. These include the threat that states would default on their debts, affecting the New York banks in 1841 and 1842 (eight states had actually defaulted by 1842), failures in Minnesota in 1859 following suspension of railroad construction and a decline in railroad bond prices; Wisconsin failures in 1860 and 1861

with the opening of the Civil War.³⁶ Apart from the Civil War, the authors¹ real shocks still leave begging questions of how and why the disturbances got started in the first place. In chapter 3 and 4 detailing New England and New York banking history, we consider possible causes of these shocks.³⁷

Rolnick and Weber argue that bank customers were sufficiently well informed about the types of bonds backing notes in various states to avoid spreading the panic to other banks. Newspaper reports on the condition of banks, plus the laws surrounding the bond collateral requirements, plus stock price information gathered from the New York stock exchange, were sufficient to remove the threat of widespread bank collapse. Regulation of bank activity, they conclude, can provide accurate information to consumers, and prevent what might lead to intrinsic uncertainty and inherent instability.³⁸ On the other hand, “regulations which seem to provide information, but in reality do not, could be the cause of inherent instability rather than the solution,”³⁹ leaving the causes of free bank failures “an open question.”⁴⁰

White

In a short reply to Rolnick and Weber entitled “Regulatory Sources of Instability in Banking: Comment on Rolnick and Weber,” (and in the version subsequently

published in the Cato Journal, Winter, 1986) Lawrence H. White offers a critique of the approach taken by Rolnick and Weber in their analysis of American free banking. The central points of the arguments are as follows: (1) free banking entailed specific regulatory and legal requirements upon the owners of the bank--entry was not completely "free"; (2) specific and significant bond collateral requirements were mandated by the various states; (3) minimum capitalization requirements were also standard in free banking law. These regulations themselves, White argues, could have induced fraud in the banking industry (not unlike the thesis stated by Rockoff). But White emphasizes that the bond collateral requirement lent official sanction to notes issued by the free banks, and may thereby have contributed to misplaced confidence by the public.⁴¹ In this case the regulation has a destabilizing effect on the banking system, by lulling the public into a greater sense of security than is actually warranted by the bank's condition. A further and more serious criticism of the bond collateral provision raised by White is the impact of the structured bond collateral system itself. As White states:

My hypothesis is the following: bond collateral restrictions forced banks to hold unbalanced asset portfolios overloaded with state bonds. Such portfolios exposed the banks unduly to the risk of declining state bond prices. (1986, p.893)

The remainder of the critique cites other problematic areas of American free banking law—areas which differentiate the American free banks from the Scottish free banks (see White, 1984a).

These include unit banking restrictions, which limit the potential depositor base and prevent diversification of assets, and restrictions on conversion of deposits (preventing banks from issuing notes in heavy deposit-redemption-demand periods), even where the desired ratio of notes to reserve currency on the part of the public is increasing. Banks were required, for example, to redeem deposits in the reserve currency, and prevented from redeeming any part of them in notes, regardless of consumer preferences. White concludes that the regulations themselves were a source of instability throughout the era, and not a source of additional stability via information flows to the public. On the contrary, the certification lent by the backing of state and federal bonds may have created a false sense of security on the part of the public; the regulatory conditions of unit banking and deposit redemption compound, rather than mitigate the problem.⁴²

As noted in the Introduction to this work, the legal/institutional explanations offered by Rockoff from one

part of the theory developed here; regulatory sources of instability comprise the remaining pieces of the theory and history of American free banking developed herein.

Notes to Chapter 1

1 . These articles are: “Money Statistics of New England, 1785-1837” by Van Fenstermaker, Filer, and Herren Journal of Economic History, Vol. XLIV, No. 2 [June 1984]; “The Impact of the First and Second Banks of the United States and the Suffolk System on New England Bank Money,” Journal of Money, Credit, and Banking, Vol. 18, No. 1 [February 1986]; by Selgin “The Supply of Inside Money Under Free Banking,” unpublished, 1985(?) and “The Theory of Free Banking: A Study of the Supply of Money Under Competitive Note Issue,” unpublished doctoral dissertation, 1986; by O'Driscoll, “Expectations and Monetary Regimes,” Economic Review, Federal Reserve Bank of Dallas, [September 1984], and “Money in a Deregulated Financial System,” Economic Review, [May 1985], and “Money: Menger's Evolutionary Theory,” Research Paper No. 8508, Federal Reserve Bank of Dallas [December 1985], and “Money, Deregulation, and the Business Cycle,” Research Paper No. 8601, Federal Reserve Bank of Dallas [January 1986]; also O'Driscoll and Short “Deregulation and Deposit Insurance,” Economic Review, Federal Reserve Bank of Dallas [September 1983].

2 . These examples are articles entitled “Why Was Specie Scarce in Colonial Economies? An Analysis of the Canadian Currency 1796-1830,” by Redish, appearing in the Journal of Economic History, Vol. XLIV, No. 3 [September 1984], and “The Optimal Supply of Bank Money: Upper Canada's Experience On and Off the Specie Standard,” Doctoral dissertation by Weir, Yale University (year?).

3 . The benefits of competitive banking and open entry under the free banking laws, as Rockoff sees them, are primarily (1) efficiency of bank capital allocation, and (2) an improved market for state debt as a spur to economic development. See Rockoff, Chapter V, “Free Banking and the Market for Government Bonds.”

4 . Rockoff (1975), p. 5.

5. If Rockoff's thesis is correct, we would expect to find a predominance of the long run profit-maximizing banks operating in the "good" free banking states, while "bad" free banking states would have a preponderance of the short run type banks established with the express intent of committing fraud. Some of the later tests performed by Rolnick and Weber (1985) attempt to establish the statistical foundation for this belief based on experience in four free banking states. The results are discussed briefly in our overview in Chapter 1.

6. Statistics on depositor and note holder losses were not kept in many of not most cases, since the losses were not covered in free banking law. We can, however, deduce when depositor or shareholder losses, or both must have occurred. This is the case when banks are unable to pay off the outstanding notes at par using the collateral bonds plus other assets. This defines a failed bank, vs. a closed one, according to Rolnick and Weber.

7. We assume here that the collateral bonds have been physically deposited with the state.

8. Since consumers are always at least as well off with cash as with in-kind payments, this must be true in the case of wildcat bankers as well. Ready cash is preferable to illiquid assets.

9. See Rockoff (1975), Introduction.

10. The banker with a view to short run fraud who also holds expectations of rising market value on the bonds would certainly take this view.

11. This includes evidence presented by Rolnick and Weber, as well as by Cole in "Wholesale Commodity Prices in the United States, 1700-1861," Harvard University Press (Cambridge, 1938).

12. See White (1984a), Chapter 1.

13. Rockoff (1975), pp. 11-13.

14. This is a familiar view of political and monetary theorists, including Friedman, Hayek, Mises, Rothbard, and Buchanan, to name a very few.

15. Contrary views on the perception of government bonds are presented by Barro in the Journal of Political Economy (1974), and by Blinder and Solow in the Journal of Public Economics (1973), and others. These discussions take

place primarily in a modern-day context, however.

16. A detailed account of the author's empirical findings on note holder losses can be found in Rockoff (1975), Chapter III. We report only a small segment of those findings here.

17. Rockoff (1975), Chapter V.

18. Rockoff (1975), p. 31.

19. Rolnick and Weber (1983), p. 1084.

20. Rolnick and Weber (1983), p. 1085.

21. Rolnick and Weber (1983). p. 1086. Note, however, that “since condition reports for New York's free banks were not available until 1843 (five years after its free banking law was passed), we consider all New York banks as starting business in that year.” (p.1086)

This may cause a problem for the time of operation analysis presented by the authors, since the greater number of New York banks failed prior to that time. The 7.9 year average operating span is of somewhat questionable status as a result.

22. Rolnick and Weber (1983), p. 1087.

23. The rationale offered for including Minnesota at the outset is its ability to offer contrast as an almost unmitigated example of the failures of free banking. But the duration of its free banking experience (1858-1863), five years at maximum from the point at which the free banking law was passed, as well as the impending events of the Civil War in the opening years of the 1860's, give sufficient reason to question the inclusion of Minnesota in the sample.

24. Rolnick and Weber (1983), p. 1089.

25. The authors state “These results present an interesting contrast between New York and Indiana. Total losses to noteholders in New York came from a small percentage of failures involving a substantial loss on each dollar of the failed bank's outstanding circulation. Total losses to noteholders in Indiana, however, came from a larger percentage of failures involving much smaller losses on each dollar of circulation. Rolnick and Weber (1983), p. 1090.

26. This occurred from 1840-1841.
27. Rockoff (1975), Chapter VI.
28. An edited version of this paper appeared in the Cato Journal, Winter 1986.
29. Rolnick and Weber (1984), p. 272.
30. Rolnick and Weber (1984), pp. 273-4.
31. Rolnick and Weber (1984), p. 274.
32. Rolnick and Weber (1984), p. 275.
33. Rolnick and Weber (1984), pp. 276-83.
34. Rolnick and Weber (1985), p. 7.
35. Friedman and Schwartz. ¹A Monetary History of the United States.” University of Chicago Press (Chicago, 1960). The discussion in Chapter 3 of our study will indicate that the Friedman and Schwartz illustration is more applicable to uniform currency and monopoly note issue, the system they were describing, than to cases of competitive monies.
36. Rolnick and Weber (1985), pp. 10-12.
37. This refers to material discussed in Chapters 4 and 5 of this paper.
38. Rolnick and Weber (1985), pp. 12-16.
39. Rolnick and Weber (1985), p. 18.
40. Rolnick and Weber (1986), p. 889.
41. White (1985, p. 3) states “Though the ostensible aim of the restriction was to reduce the note-holders¹ exposure to losses, its actual impact may well have been the reverse. It may have acted to increase losses in several ways.” The author then goes on to discuss the problems that are outlined in the text of this chapter.
42. White (1985), p. 8.

Chapter 2: Laissez-Faire and Free Banking Theories

Nineteenth century banking institutions in the United States can trace their theoretical roots to controversies surrounding the applicability of laissez-faire principles as applied to commerce in general and to banking in particular, to concerns about bank solvency and noteholder safety, and ultimately to controversies surrounding the nature and origin of business cycles. These concerns echoed in many respects the British monetary controversies of the late eighteenth and early nineteenth centuries, and indeed, many elements of the British debates reappeared in the American discussions.¹ The British debates led to the establishment in Scotland of a system known as free banking, a system which, while regulated to some degree, had discarded the requirement for a royal grant of privilege in the form of a bank charter. Notably, the operation of Scottish free banks was dominated by what are described in this chapter as laissez-faire principles, the same principles which guided nineteenth century New England banking.

At the same time as laissez-faire principles were being

established for New England banks, various American states were experimenting with systems which touted the free banking banner, but which differed dramatically from the Scottish system. Doubtless the free banking name came to adorn New York banking between 1838-63 because of one notable similarity between it and the Scottish system: absence of charter requirements. This chapter will indicate important differences between American free banking and its Scottish model, lack of charters notwithstanding. It will also point to essential similarities between Scottish free banking and what is described as laissez-faire banking in New England.

The theory of free banking advanced in White's Free Banking in Britain: Theory, Experience, and Debate 1800-45 is taken as a point of departure. This theory captures the elements of a non-chartered banking system while allowing for market or other legal constraints to be considered, thereby making it suitable for examination of both the New York and the New England banking environments. A comparison of the two banking regions under theoretical conditions will allow for the discussion of differences in incentives generated under laissez-faire vs. American free banking. It will also detail how we expect incentives to be altered when specific restrictions are changed. By undertaking a theoretical exercise of this sort we can, even before case histories are considered, learn something about the

operations and expected performance of banks in each system. More importantly, the theories provide a framework within which to integrate the historical facts presented in chapters 3 and 4, and thereby a framework for understanding their context and meaning.

We propose in this work that the New England banking arrangements allowed important freedoms to bank managers, while imposing certain binding constraints upon them, and that this system differs substantially from the New York free banking system. Since we make use of banking theory to inform us about the incentives facing bank managers in differing institutional settings, it is necessary to clarify the guiding forces in the New England system from those in New York. The New England system most nearly follows the model of a *laissez-faire* banking system, therefore we analyze the incentives facing bank managers in New England with a theory of *laissez-faire* banking. *Laissez-faire* in banking is really a theory of the properties of a monetary system operating under market-imposed constraints.²

American free banking, as we will see, is essentially a regulated banking system which incorporates open entry.³ With the appropriate modifications, the model that describes competitive banks of issue in New England can also be used to describe competitive banks of issue in New York, and both are based upon the theory advanced by White (1894a) in

reference to Scottish free banking.⁴ The theory of laissez-faire banking examined here is intended as a touchstone by which to better understand differences in the performance of New England vs. New York banks. And it is to this end that we focus on the characteristics of a laissez-faire vs. a non-laissez-faire banking system in this chapter.

Free Banking in Britain

White describes free banking as “the system in which there are no political restrictions on the business of issuing paper currency convertible into full-bodied coin.”⁵ Assuming redeemability of the privately issued notes, absence of legal tender laws or other laws which would create a preferential bias toward one or more banks' notes, and profit-maximizing behavior on the part of the banking firm, White characterized the industry as one in which a bank's desire to operate profitably over a sustained period of time placed a finite limit on the volume of notes it could keep in circulation. The volume of notes in circulation was therefore a choice variable to the banking firm, and the first order conditions revealed that the firm encountered rising marginal costs as it attempted to hold additional specie and bills as assets against deposits and notes in circulation (equity assumed given).

This system is one of ongoing or contemporaneous redeemability of notes, regulated by a process of interbank

clearing in the market. Any bank which placed more notes into circulation than the public desired to hold was liable to be embarrassed when the notes were returned for redemption. As White also points out, the notes tended historically to return to the bank of issue rather quickly (as opposed to our modern system, where notes may circulate for long periods of time before they are returned to a Federal Reserve bank), therefore the clearing mechanism generated unintentional benefits to noteholders in the form of rapid detection of overissue. In the sense that market constraints and voluntary clearing arrangements dominated the behavior of the Scottish free banks, those banks bear a close resemblance to New England banks operating in a laissez-faire environment.

American Free Banking

Like its British counterpart, American free banking dispensed with what had essentially been a political obstacle to establishing a new firm—the charter. Nevertheless, in the regulations detailing bond collateral requirements for free banks, the banks became closely tied to the activities of government, even while escaping narrow political concerns. This tie-in came in the form of state and federal government debt used as bond collateral for the notes, and, in the case of Treasury notes, as reserves upon which note issues could be multiplied.

If the White model is extended to include, in addition to commercial bills and specie on the asset side of the bank's balance sheet, a separate category for government bills, we can spell out the implications of the model when purchases of government debt are included in the bank's asset portfolio. This makes the model more nearly conformable to the possibilities facing New York and New England banks for much of the 1811-63 period, and to actual events in New York during the free banking era. Therefore the same basic model can be applied to both New York and New England, assuming an active role for government debt in the New York banks' portfolios and virtually no role for that debt in New England. Appropriate restrictions on the model will then reflect the important regional differences.

State banking authorities were almost wholly responsible for the different configurations that banking firms could take. Free banks, safety fund banks, and state chartered banks operated side by side in New York; New England banks took on a character peculiar to that region. In the face of differing institutional constraints, banks in New York and New England might be expected to perform unequally against a number of possible criteria—ability to redeem notes continuously (avoid suspensions), par circulation of notes, ability to pay off creditors (depositors) in the event of closing, efficient clearing mechanisms, elasticity of currency supply, and longevity.

As indicators of “success,” however, no one of these conditions is entirely sufficient. These are characteristics which tend to make the monetary system resilient. Chapters 3 and 4 discuss actual performance of banks in the two regions with these criteria in mind.

Laissez-Faire and American Free Banking Comparisons

Applying White's model with the addition of Treasury notes and government bills (debt), the operating costs of the individual bank are a function of specie (S), commercial bills (B), government bills (G), bank notes (N), Treasury notes (TN), and deposits (D).

$$C = f(S,B,G,N,TN,D)$$

The expected liquidity cost and the expected liquidity cost function should be modified to include a role for liquidity costs associated with Treasury notes. Both additions will affect the function.

$L = g(S,N,TN,D)$ No entry for Treasury notes appears in the original model.

Government debt enters through its influence on the volume of notes issued. The partial differential of the liquidity function with respect to notes, L_u , remains positive. The addition to the model of Treasury notes, TN, (in the specified manner) can affect the expected liquidity cost in two ways: 1) Treasury notes accepted by individual banks and redeemed for specie increase expected liquidity costs

directly ; 2) if Treasury notes are viewed as reserves banks will issue more of their own notes, increasing $L > r$, expected liquidity costs of bank notes.

We should spell out clearly the cause of the special cost associated with Treasury notes in case (1) above. It arises under deferred redemption of Treasury-issued notes. It was normal practice at the time for one-year deferred redemption notes, carrying an interest premium upon redemption, to be issued by the Treasury. Thus the banking system is a creditor to the Treasury for the period of time over which notes are circulating.⁶

An exception occurs when Treasury notes are cleared contemporaneously, exactly like the notes of competing banks. If the specie required to redeem the Treasury's notes can be recovered by the redeeming banks at the same speed with which it would ordinarily flow to clear interbank balances, then the Treasury notes impose no special liquidity costs on the redeeming bank. In terms of bank balance sheets, the Treasury notes will be indistinguishable from the notes of any other bank which have been accepted for deposit and redeemed in specie. In the event that the notes are redeemable (ultimately) only with a delay—as was the case with the one year deferred redemption notes—which also carried an interest premium—the bank will experience positive expected liquidity costs associated with the

deposit and redemption.

The addition of government bonds or Treasury notes to the basic model, however, does not alter the functional behavior of liquidity costs to the bank. These are costs which the firm incurs when it is faced with actual or threatened adverse clearings during any particular period (p.5). Taking the return on government debt as exogenous, we can derive generalized results for the altered model.

Except for the presence of yield on government bills, r_g , the cost associated with the government bills, C_g , and the possibility of the presence of redeemable Treasury notes as deposits, creating liquidity costs associated with the deposited notes of L_{TN} , the results are identical to White (p.6).

Here, in profit-maximizing equilibrium, the marginal net revenue from holding commercial plus government bills will be equal to the marginal net benefit of holding the reserve currency. Marginal net revenue calculations need only incorporate the government bills with commercial debt into the model to arrive at the expected liquidity cost (at the margin) of keeping notes in circulation. Also, the marginal net revenue from holding bills plus government debt must be equal to the costs associated with additional deposits.

For the profit-maximizing bank, rising marginal costs are associated with extending note issue via additional discounts of commercial or government bills, deposits, or permanent additions to specie (p.6). In cases

where deposits do not carry an interest payment (as was true in the majority of American banking situations), consideration of the cost associated with interest payments on deposits can be dropped without changing the implications of the model in any significant way.⁷

Government Debt

How will banks acquire government liabilities? In the case of state government or municipal debt, we will make the simplifying assumption that purchases of assets take place with the commodity reserve, thereby reducing the specie/notes ratio for the bank in the immediate area. Federal debt purchased by the individual bank of issue was actually implemented in several ways. The individual bank could lend the Federal government specie by purchasing bonds, in which case the operation is analogous to the purchase of local government (or for that matter, commercial) debt described above. The bank would essentially swap bonds for specie in its asset portfolio.

The other item that becomes significant in the American free banking situation is the deferred redemption Treasury note. Treasury notes redeemable in gold or silver on demand are cleared exactly analogously to the notes of an issuing bank in the system. Since banks during the American free banking era customarily redeemed the notes of other banks, whether at par or at discount, they would ultimately be

expected by their customers to redeem both their own notes and the Treasury notes in specie. But banks often accepted deposits of Treasury notes and held them as reserves (which was perfectly legal). The bank issued more of its own notes based upon the deferred redemption Treasury notes. The problem occurred when the additional notes began to return for redemption. Specie from the Treasury would not be forthcoming for (at least some part of) a year. Specie demands had to be met immediately, however. The note issuing bank consequently faced a liquidity crisis as its notes began returning for specie. The practice of issuing bank notes based on holdings of Treasury notes, as well as on specie, essentially created two forms of high-powered money upon which bank notes multiplied.

Another implication of the model bears preliminary discussion, in light of reported experiences with the Treasury notes by business and the general population. It concerns what amounts to suspension of specie redemption for notes (when due) by the Treasury on the one hand, and payments acceptable to the Treasury on the other. The legal dimensions of this situation are not clear, but a de facto suspension of specie payment appears to have been practiced, at least in some reported instances. Treasury agents refused to accept payment in anything other than specie; payments by the Treasury were carried out in notes (in some

cases notes were reported to have been redeemed in other notes). This adds a new twist to the analysis—if de facto suspension of specie redemption by the Treasury takes place in this model, the banking system will clearly be affected. There is strong anecdotal evidence that de facto suspensions occurred quite independent of periods of general suspension. Evidence of these occurrences will also be addressed in chapter 3 and especially chapter 4.

This de facto suspension by the Treasury increases the uncertainty under which all monetary transactions take place. In one view, a predictable foreshortening of time horizons (much like those observed during monetary business cycles) is a strong possibility. The result can be to induce the note-issuing bank to increase its issues in an attempt to reap short-run profits (this is no less true if bank managers foresee the eventual specie crunch—it may in fact encourage speculation).

The above discussions point to the fact that in a competitive-money/redeemable-note system, individual banks are dependent upon actual specie flows or an efficient interbank clearing mechanism to function so as to prevent insolvency. Deferred redemption changes the incentives facing banks, as does a suspension of any kind. The question of how banks responded to the constraints facing them is the subject of later chapters, and specifically addresses the historical record for these banks.

The White model of the individual bank of issue delivers a straightforward and convincing case for the self-regulating behavior of banks under the following plausible assumptions: the bank is a profit-maximizer and desires to maintain its notes in circulation; specie redemption on demand is the market process which both generates information to the public concerning the solvency of the bank, and causes costs to rise (and profits to fall) the moment that note issues become “redundant”¹¹. This market process, the clearing system by which notes deposited at one bank are redeemed by other banks which have received them for deposit, is self-regulating in the event of adverse clearing (what White describes as the process of the “reflux”; see also Selgin, 1985). Adverse clearing results when the demand for specie to redeem outstanding notes exceeds the ability of the bank both to meet the demand and maintain its current volume of notes in circulation. The forced contraction of note issue signals the bank's managers that they must take prompt action to prevent reserves from becoming exhausted, and serves as a check against any one bank's continued overissue. Banks which regularly find themselves in a position of insufficient reserves run the risk of serious damage to reputation (at the very least); we assume that poor management will be reflected in the bank's costs of acquiring and maintaining its deposit base, and in

other liquidity costs.

It would be easy to claim too much for a laissez-faire policy in banking. Bank failures do occur for various reasons. Clearing mechanisms and information flows are not instantaneous adjustment processes; “banking school” equilibrium-always theories do not apply here. The self-regulating properties of a laissez-faire system are explicitly disequilibrium processes in a non-perfect-knowledge world. Adjustment is neither instantaneous nor perfect. One of the most important claims that one can make for such a system, however, is to note that lack of instantaneous and perfect coordination tends to generate the necessary information and incentives to correct errors in such a system (see Kirzner, 1985; and White, 1984a and 1984b, and 1986, among others). Conclusion

As a point of departure we have taken the open economy/fixed exchange rate system (whose properties have been derived by White), a scenario roughly comparable to the American situation in the early nineteenth century. Accepting the subsidiary conditions bearing upon the use of this model (as seems plausible), the monetary base (stock of specie) will be determined endogenously (1984a, pp.9-14). A partial summary of the model's properties would be:

- 1) the assumption that the public has a desired ratio of specie to notes held;

2) gold and silver coin are worldwide monies whose purchasing power is determined in world markets;

3) desired real balances determine the desired nominal money stock, given the purchasing power of gold and silver money.

Conditions under which specie inflows or outflows can be expected to arise as part of an adjustment process are specified in the model. It is interesting and significant to note that the model implies that “Banks may reduce the probability of specie losses and hence may economize on specie reserves by joining a clearinghouse that settles temporary interbank flows in a non-specie asset...” (p.13). As long as individuals doing business at different banks demand reserve currency for some transactions, there will be a positive demand for specie. Banks consequently face the probability of some positive demand for redemption specie, and will choose to hold specie reserves greater than zero (see White pp.13-14). The foregoing brief review of the White model underscores the process by which interbank clearing and self-correcting mechanisms occur. Interbank or interregional specie-flows, and thus contemporaneous redeemability of notes, are the key to the system's ability to restrain imprudent bank managers. This model does not address the behavior of so-called “wildcatters,” individuals who issue notes from banks located in remote regions, and

those with no intention of conducting business in the “long run.” Wildcat bankers explicitly try to generate profits by defaulting on their liabilities (deposits). We would predict quite different results both for the individual bank and for the banking system when bankers seek to (illegally) avoid redemption of their notes (a more thorough discussion of cost-avoiding banks can be found in Rolnick and Weber, 1984, 1985, and 1986; also Rockoff, 1985). Further discussion of the possibility and prevalence of wildcat banking is found in chapters 3 and 4.⁸

In sum, the pure *laissez-faire* system described by White could be expected to behave as predicted. A self-regulating, relatively stable set of financial institutions with comparatively great resiliency and longevity can be produced. As an unintentional consequence of the workings of self-interested institutions, a relatively stable monetary system is achieved. It will be the task of subsequent chapters to illuminate the American variations of this system, and so to explain the set of uniquely American institutions which developed in the early to mid nineteenth century in the United States. This chapter focused on clearings, which will be the most important difference between New York and New England.

Notes to Chapter 2

1. See Fritz Redlich's The Molding of American Banking; Men and Ideas, Vol II, for example. See especially Redlich's chapter on Free Banking and the evolution of the American free banking idea out of the British monetary controversies as well as American political reality. A preliminary study by White and Selgin (1986) titled "Laissez-Faire Monetary Theorists in Nineteenth Century America" is useful not only in identifying those theorists but in identifying the roots of their thought as well.

2. See Lawrence White's "Regulatory Sources of Instability in Banking: Comment on Rolnick and Weber," prepared for the Cato Institute of Washington, D.C., February, 1985. Also Trivoli, The Suffolk Bank: A Study of a Free Enterprise Clearing System, an Adam Smith monograph (1979) published by the Adam Smith Institute of London, England and Leesburg, Virginia. Also, further work by Lawrence White on the properties of a laissez-faire monetary system is forthcoming in Cato Journal, Fall 1988.

3. See White, 1985, above, especially p.8.

4. Free Banking in Britain: Theory, Experience, and Debate 1800-45, (1984a), published by Cambridge University Press.

5. Ibid , p. 1 ♦

6. The legal conditions surrounding use of the notes and their legal tender status in states (like New York) which used them as reserves and/or circulating media will be addressed in Chapter 4.

7. $C = f(S,B,G,N,TN,D)$ modified cost function
Equalities:

$$r_b + r_g - c_b - c_g = -c_s - L_s = c_N + c_{TN} + \frac{1}{2} - r_d + c_d + L_d$$

Equation (1)

Where r_b represents the interest rate on bonds; r_g the interest rate paid on government debt; C_b the cost associated with commercial debt; C_g costs associated with government debt; C_s costs associated with specie holdings; L_s the liquidity function with respect to specie; C_N the cost associated with bank notes issued; C_{TN} cost associated with Treasury notes (to the bank); L_N the liquidity function with respect to the bank notes issued; r_d the interest rate paid on deposits by the bank; C_d the cost associated with deposits for the bank; and L_d the liquidity function with respect to deposits held at the bank.

The calculations are:

$$r_b + r_g - C_b - C_g = -C_s - L_s \quad (2)$$

$$r_b + r_g - C_b - C_g = C_N + L_d + L_{TN} \quad (3)$$

$$r_b + r_g - C_b - C_g = r_d + C_d + L_d + L_{TN} \quad (4)$$

These equations are modified versions of the model used by White (1984a): see pp. 4-8 especially.

8. Several issues in addition to the wildcat problem are discussed in greater detail in the chapters dealing directly with the banking history of the period. In chapter 4 on the New England banks, the Suffolk Bank and the Suffolk clearinghouse system will be observed to function much like a central bank (for the New England region). Missing from the Suffolk system are monopoly note issue and fiscal agency. The history of the New England regional banking system will reveal the successes and failures of laissez-faire banking in two senses: the viability of individual banks of issue under a specie redemption standard, and the viability of a voluntary regional monetary system (which is in effect what it had become) in providing the central banking services advantageous to a growing economy. As we will see, wildcat banking did not have a role to play in the New England states because of their extraordinary stability and the market incentives created. For different reasons, wildcat banking was not a problem in New York either, as chapter 3 details. This is apparently because the law in New York was effective in preventing

the occurrence of wildcatters.

Chapter 3: New York Banking Experiences 1811-1863

Overview

The development of free banking in New York, and particularly the New York state free banking experience of 1838-63, is significant to our understanding of American banking history for two reasons. First, because free banks, despite fairly open entry into the industry, were strictly regulated in important respects. Analysis of the period, however, has tended to focus on the removal of charter requirements, rather than the addition of other legal restrictions in the form of free banking law, as the driving force in free bank experience. The New York experience is important, secondly, because the destabilizing effects of free banking regulation have largely gone unrecognized in modern times. As a result, the free banking era has been misconstrued as an experiment in unregulated banking: one myth that has grown up around this misperception is that laissez-faire banking has been tested and—as a long-term proposition—has failed. A second myth surrounding the American experience is that a policy of open entry required

compensating legal restrictions to counter what have been viewed as the undisciplined and ruthless forces of laissez-faire. In their efforts to prevent fraud and insure stability, framers of free banking law considered carefully constructed legal restrictions to be superior to market-generated safeguards.

Most analyses of the American free banking era and the New York free banks take one or both of these myths as points of departure. The myths lead analysts to focus attention on free banking law as the critical positive element in an otherwise fragile banking system. And free banking law unquestionably influenced bank performance. But because the law carefully circumscribed the behavior of bank managers, it has become commonplace to attribute any apparent success in free banking exclusively to the wisdom of these laws. New York has long been considered one such success. Free banking's failure elsewhere has been ascribed either to freedom of entry, or to the presumed vulnerability of competitive currency in the face of economic shocks. Again, these conclusions rest on the assumption that open entry and unregulated banking are synonymous, and free banking therefore chaotic and fragile. If unregulated banking is seen as unstable and chaotic, then legal restrictions naturally become the pivotal element in a balance between a fragile monetary order and a monetary and commercial disaster.

Earlier evaluations of the free banking era by Rolnick and Weber (1983, 1984, 1985, 1986) and by Rockoff (1975, 1985, 1986), spin out the logical implications of these views. Economists Rolnick and Weber conclude that free banking enjoyed a degree of stability and success in New York state precisely because of bank regulation. Its failure elsewhere (and eventually in New York) is attributed to exogenous influences (shocks) beyond the control of banking authorities or bank managers.

Historian Rockoff has argued that free banking provided a sound money and stable banking environment to the extent that self-interest was held in check by “good¹” banking laws (see Rockoff, 1975). The New York state free banking act is considered by Rockoff to be the premier example of such good laws, whereas states with bad banking laws tended to produce wildcats. Are wildcats, then, an example of self-interest run amok? Or, as Rockoff suggests, are they created when law provides an open door to fraud? The issue of the value or disadvantage of laissez-faire in banking in some sense hinges on an adequate explanation of the wildcat phenomena, even though wildcat banks do not figure significantly into the picture in either New York state or in New England. Wildcat banking did not really exist in either region. The basic issue is one of how a banking system behaves under laissez-faire. Do the influences of

self-interest and profit-seeking result in wildcats and destructive behavior in the banking system, or do they, conversely, produce far superior institutions in the areas of redeemability, par circulation of notes, longevity, and other desirable criteria? It would be more than a little peculiar to suggest that both results are equally likely, yet both sides of the argument have been advanced in current debates.

Once we examine the influence of free banking law on free banking experiences in New York the resolution to this dilemma becomes clear. A laissez-faire approach to banking (as any other industry) assures that market incentives (self-interest and profit-seeking) will dominate bank behavior. Therefore if laissez-faire produced only wildcats, all attempts at laissez-faire banking would be short-lived and self limiting, since depositors would learn to shun these institutions. (For this reason we contend that deliberate wildcatting behavior is an explicitly short-run phenomena (see Chapter A). Since the wildcatter must then move on, the profitability of wildcatting is questionable). But we find that wildcat banking never arises in New England, despite the laissez-faire character of the banking industry. New England statistics, presented in Chapter 4, give clear evidence that laissez-faire is not tantamount to wildcat banking. What, then, creates this problem in the banking system? It appears that something like the Rockoff

thesis applies: laws can and do open the door to fraud and/or mismanagement. The legal framework can and sometimes does prevent wildcatting. But so can a relatively laissez-faire banking environment. Just as laissez-faire is not evidence of wildcat banking, the absence of wildcat banking is not evidence itself of a successfully operating banking system.

Rockoff's characterization confuses this issue. New York is considered a successful free banking state because it did not experience a problem with wildcat banks. We concur with the part of Rockoff's thesis which argues that banking laws in New York state prevented the wildcats from appearing. But since preventing wildcat banking is not equivalent to ensuring that a stable banking system will prevail, it is critical to examine the effect of the laws on the performance of New York banks, completely aside from the wildcat issue. For only by untangling the various criteria by which we evaluate free banks can we compare the success of New York's free banking system to the laissez-faire banking of New England.

Ideological and Pragmatic Concerns

American free banking under the New York state model developed out of two concerns, one ideological and the other pragmatic. The ideological/philosophical strand was voiced by those who wanted to mimic in American banking the system of the Scottish free banks. These voices stressed open entry as their primary objective in banking reform. The pragmatic view focused on the issue of safety within a competitive banking system. Although the dichotomy between viewpoints is not airtight, contributors to the free banking discussions tended to argue primarily from one or the other concern. To understand the evolution of banking in New York state toward the free banking system, earlier experiences with bank charters and the safety fund system need to be reviewed briefly. It was, ultimately, a lack of satisfaction with the traditional state charter and the safety fund experiment that led to free banking legislation in New York.

Bank Charters

Following the demise of the First Bank of the United States in 1811, the paper currency of the country was provided, in New York as elsewhere, by individual note-issuing banks. Single-office unit banking was overwhelmingly the rule throughout the United States during

this period. Less than one percent of American banks prior to the 1900's were engaged in any form of branch banking. Estimates introduced by Hepburn for 1811-15 show the aggregate number of banks increasing over this period from eighty-eight to two hundred and eight--by 136%. Total capital of the banks increases by a slightly smaller percentage—104%—from approximately \$43,000,000 to \$88,000,000. The progression of bank growth over the succeeding years shows the number of banks growing at a far greater rate than aggregate bank capital.¹ The rapid growth in numbers of banks during this period can be traced to loans to the Treasury in preceding years, used to finance the war of 1812. The bank panics of 1815-19 occurred in banks carrying heavy subscriptions to the War debt. These did not include banks in New England where, as detailed in the next chapter, antiwar sentiment and opposition to its debt finance, ran high. The illiquidity of the Treasury debt was already making it difficult for banks to increase the money supply when demand for funds increased.² When most banks outside of New England suspended specie redemption in 1814, the legal and market restrictions against overissue became inoperative.

Adequate legal restrictions were wanting in most of the states, and notes were issued with ease and without regard to capital or specie holdings...Most of the banks outside of New England suspended in August, 1814...Boston and New England notes alone were quoted on a par with specie. (Hepburn, p. 89).

The procedure for rechartering banks in New York was difficult and cumbersome—a two-thirds majority vote in both houses of the legislature was required to grant a charter for each individual bank. The banks, therefore, were strongly in favor of legislative reform. In particular, they desired a reform which would bring them unconditional renewal—virtually a permanent charter. The traditional chartering process clearly impeded long run autonomy on the one hand, while failing to insure responsible behavior on the other.

The New York process was rife with political logrolling—a hand-me down of the royal grant of privilege. In America the royal charter was transformed into “old boy” relationships between legislators and would-be bankers. Individuals who desired to enter the banking business petitioned the state for a grant of privilege. Provided that they could demonstrate the “need” for their services (in terms of commercial trade), meet the legal requirements of a banking institution, and overcome legal obstacles, the petitioners might reasonably expect to receive their charter from the state. According to Richard Hildreth:

In order to obtain a charter, it is necessary to be on good terras with the legislature applied to...Things being properly prepared, a petition is to be presented ...representing that in the town of _____, the public good requires the establishment of a bank; and to prove it, there should be annexed to the petition, as long a list as possible, of the shops, manufacturing, shipping, etc., and petition may wind up with a grand

flourish about the growing business and importance of the place. The bank is to be asked for, solely on public grounds; not a whisper about the profits the petitioners expect to make by it. (Hildreth, pp.97-8)

If the petitioners failed in their request, the following steps could be taken: 1) offer legislators who initially oppose the plan gratis shares of bank stock; 2) make later revisions in the stockholder list, adding legislators as necessary; 3) “form a combination with the friends and advocates of some other proposed banks, and ...push the whole through in succession, by that ingenious contrivance commonly known as log-rolling; A) buy a charter (at a premium) from a politician who has used his influence to acquire one (Hildreth, p. 98). Though restricted availability of charters was intended to prevent the evils associated with open entry (fraud, unsound banking practices, etc.), limited entry and the opportunity to profit from the resulting limits to competition did create classic rent-seeking behavior in the industry. In the United States, this was manifest in the practice of bonus payments—payments which banks were expected to pay to the commonwealth that chartered them (Redlich, p. 90).

As theory would predict, legal restrictions to limit bank charters “in the public interest” generated fierce competition for charters. Banking policies and practices therefore came to be dominated by political, rather than by market or economic considerations. The idea of a quid pro-

quo for privileges plays an important role in the evolution from chartered banks to Safety Fund banks in New York state, and eventually in the development of the New York free banking system, since these payment systems did not generally produce the safest nor most prudently-run banking operations. Interestingly, de facto open entry was achieved in New England despite its own bank charter laws. With minimum bank capitalization criteria met, virtually anyone could enter the banking business in New England. While New York banks might be expected to generate monopoly profits based upon a successful limitation of entry into the industry, we will see that New England banks, with a purely nominal charter system, could not. The question of industry entry becomes an important one for this comparative study because it is clear that bank entry was a political process in New York. That the political process failed to dominate in New England is one of the remarkable features of that system, one addressed in the following chapter.

New York banks were unsuccessful in their efforts to obtain permanent charters. Public opposition to the idea was strong in the state, and the legislative obstacles formidable. The general distrust of large numbers of banks (fear that too many banks lead to an uncontrollable volume of bank notes in circulation) based on the old 'real bills' and 'needs of trade'¹ doctrines prevailed, and the idea of unconditional renewal of charters failed. The first reform,

the Safety Fund Act, addressed the issue of protection for bank creditors. And although it was not a primary concern in the legislation, bank entry was somewhat more relaxed under the Safety Fund scheme.

Safety Fund

The well-intentioned but ill-fated safety fund system arose from concern about fraud and noteholder security in the state-chartered banks. By 1828, a year before the Safety Fund legislation was passed, New York had forty incorporated banks; thirty-one of these with charters due to expire within a very few years.³ Of the details of the Safety Fund little will be said aside from enumerating the features of the system and the ultimately unsatisfactory banking experiences under it. At the time that the safety fund system was instituted, Van Buren (of New York) described the fund as a "...substitute for the payment of a gross sum [bonus] to the state, which has from some time been exacted as a consideration for the exclusive privilege, the creation of a permanent fund, to be held as security against all losses which our citizens may hereafter sustain through the failure of banks.⁴ After the bank panics of 1815-19, Lanier reports that the public was awakening to the dangers of bank mismanagement, and outside of New England, large bank losses and business failure had ensued.⁵

Besides the applications for renewal, the New York state legislature received in 1829 thirty-seven new applications. In an attempt to protect bank depositors from losses due to overissue or fraud (banks refusing or evading redemption), the legislature passed the Safety Fund act. With this act, each bank was made partially responsible for all other banks in the system through the common fund. The fund itself was designed to be the means of salvaging banks that faced insolvency, thereby not only saving the bank, but the bank's creditors as well. Contributions to the fund consisted of a percentage of each bank's capital. In the event that any one bank could not meet its obligations, the debt (exclusive of the capital stock) in excess of assets was paid out of the fund. Certain restrictions and exclusions applied—note issues would be limited to twice the paid-up capital, and three bank commissioners were appointed to undertake supervision and examination of the banks. The city banks complained. The ratio of bank note liabilities to paid-up capital for the city banks was around .33, while the ratio for the country banks was often over 1.00. Furthermore, the city banks paid into the fund based on an absolutely larger capital stock, so that the contributions from the larger city banks represented an insurance subsidy to the smaller, less well capitalized, institutions.⁶ The idea behind the common fund was that no one bank would have to bear the brunt of a failure in the event either of mismanagement or

of bank panic. Since bank panic could become epidemic, once begun, it was thought that the safety fund scheme represented the surest way to cement bank interests together in a common bond and to prevent bank failure as well. In theory, the safety fund banks would police each other's activities to guard against failure or fraud, and thereby reduce the probability that the fund would ever be needed. In practice, the safety fund invited risk-taking and overissue for the individual bank by concentrating the benefits of that activity in the hands of that bank's owners and managers, while spreading the costs to every other bank in the system—in the event of failure—and to the public—regardless of bank failure.⁷ The view of one segment of the banking community was expressed by an anonymous pamphleteer:

The gravest objection to the system is the creation of the Bank Fund, by the half per cent annual contribution of the banks. This is represented by the “Union Committee,” as being one of those defects “endangering the soundness of the currency,” and also “unjust,” inasmuch as it renders banks responsible for others, over which they have no control; as offering a “premium in favor of misconduct, at the expense of those which are wisely and cautiously managed;” and “more particularly unjust, in reference to the city of New York, inasmuch as the tax is laid in proportion to the capital and not to the circulation.” (Redlich, p. 93)

From 1840-42, at which time the safety fund system was still operational, eleven safety fund banks failed. The rapid tumble of the banks caused the safety fund's demise as a viable insurance scheme.

The blame for the banks'

failure, rather than being properly perceived as a scheme bound to fail due to the incentives it created, was laid on the doorstep of a “too broad¹¹ coverage of bank liabilities. Not only did the safety fund promise to pay off note holders, it guaranteed all debts of the bank (save shareholder equity).

Of the eleven banks that went under between 1840-42, nine were country banks, and two were in New York city proper. Payments on liabilities for the failed banks were (with the exception of one bank) drawn from the fund. Four more of the safety fund banks failed after 1842, and dividends on notes of the four banks were finally paid up in 1866, twenty-four years later, out of the \$88,048 surplus in the fund. The problem with the apparent “wildcat”—banks opening expressly to generate short run profits at the expense of creditors—was more common in the charter and early safety fund periods than in the later free banking period era.⁸ The safety fund system in particular protected the irresponsible bank manager at the expense of the responsible one. Following these events, the safety fund was abandoned for all practical purposes, remaining only as “a matter of bookkeeping in straightening out the tangle of past transactions.”⁹

Dynamic Stability of the Free Banks

Free bank regulation had a profound influence not only

on the opening of free banks, but more importantly, on the ability of banks to survive in a dynamic economic environment. All banks aim to operate profitably. In this case, the regulatory structure essentially constrained banks¹ portfolio choices such that solvency was jeopardized. These regulations had intended to create in the free banks safer institutions—particularly in the face of macroeconomic shocks or of attempts to defraud the public by the bank's managers—than any of the institutions which preceded them.

Earlier banking systems—the traditional charter and the safety fund systems—had not adequately resolved the problem of profitability vs. safety. Evolving gradually out of these early attempts to create safe banking through regulation, American free banking captured the imagination of legislators and the public alike in what promised to be a perfected banking regime. It was influenced in various ways by the British banking system, and, at least superficially, by Scottish free banking. In theory, the system would protect noteholders from losses due to insufficient reserves or poor management. Thus backing note issues with “safe” and adequate assets was paramount—the notes presumably guaranteed jointly by full coverage in terms of collateral bonds, and by the quality of the bonds themselves. In New York, bonds which qualified as bank note collateral were

limited by considerations of default risk and risk of market price fluctuation. To this end, the law mandated purchase and use by the free banks of certain types of collateral bonds--most notably federal and state government debt—as backing for banknotes issued. Considered virtually riskless, these government debt instruments eventually became a source of instability in the free banks rather than the unassailable barrier to noteholder loss it was presumed they would be. Real estate and commercial debt, originally allowed as part of the collateral, proved problematic for other reasons. While an association of individuals wishing to form a bank could conceivably deposit certificates of public debt (federal and specified state debt) with the state comptroller's office up to the full amount of the banknotes received, commercial debt and mortgages could at most comprise half of the collateral deposit. Therefore banks were forced to hold at least fifty per cent of the required collateral in the form of government debt. The restrictions on the public debt accepted for collateral were as follows:

...such public debt shall in all cases be, or be made to be, equal to a stock of the State producing five per cent per annum; and it shall not be lawful for the comptroller to take any stock at a rate above its par value.¹⁰

while for other stocks:

Instead of transferring public stocks as aforesaid to secure the whole amount of such bills or notes, it shall be lawful for such person or association of persons, in case they shall so elect before receiving any of the said bills or notes, to secure the payment of one half of the whole amount to be issued, by transferring to the comptroller bonds and mortgages upon real estate, bearing at least six per cent interest of this State, payable annually or semi-annually ; . . .¹¹

In this case the problem lies less with the inherent quality of the bonds themselves, originally chosen because of the low risk of fluctuation in market value, than with the legal requirements of a bond collateral accompanied by restricted portfolio choices.

In the face of monetary, commercial, or political changes, asset values may change* At the very least, responsible bank managers would respond to market changes with appropriate portfolio adjustments. Specific bond choices mandated by collateral laws denied banks the freedom to adjust collateral asset portfolios in response to changing economic conditions. They effectively prevented banks from diversifying collateral holdings, creating unbalanced collateral portfolios. Besides exposing banks to additional risk with all-government-bond collateral assets, framers of free banking law confused the concept of ultimate redeemability of banknotes with contemporaneous redeemability. Collateral bond requirements assured the former—they could not guarantee the latter.

The bonds functioned as reserves only in the direst of circumstances, when the bank was already failing and banknotes had been refused for redemption. With banks required to hold a large part of their reserves aside in essentially illiquid collateral, free banking laws inadvertently increased the riskiness of bank operations. The major consequence was that portfolio, and thus reserve, adjustments were severely limited. The legal mechanism designed to limit risk by constraining management's discretion in portfolio selection, through a preconceived pattern of “prudent” or “safe” assets, impeded the ability of managers to make discretionary decisions just when such discretion became critical. This occurred when the portfolio appropriate to the current economic reality differed from the legally mandated asset portfolio. The appropriate portfolio array should have been determined according to prevailing economic conditions, but the actual portfolio was predetermined by law. And where bank managers might otherwise have adjusted asset portfolios to minimize the risk of insolvency, the laws rigidified portfolio structure and prevented these adjustments from occurring. Ultimately, legal restrictions on portfolio adjustment made free banks more—not less—susceptible to failure in the face of crisis. In fact, the more actual economic conditions differed from conditions existing at the time the laws were devised, the further away banks' actual asset

portfolios moved from their optimal asset portfolios. This is one way in which regulation tended to destabilize the banking system. This problem is demonstrated in the failure of administratively-established default premiums to convey unbiased information about the relative riskiness of different bank's notes (an issue discussed within this chapter). In addition, the impression of risklessness attributed to bank assets like government debt, and the way in which it was used to underwrite note issues by the free banks, may have lulled the public into a more trusting and complacent attitude than was warranted. If so, regulation worked against the interests of noteholders in a more insidious manner.

The Crisis of 1837

Prior to 1837, legislators still favored the idea of individually chartered banks, and were not receptive to free banking ideas. But the 1830's saw the rise of a popular movement led by farmers, a group called pioneering "have-nots," who were debtors desiring easy credit. This movement put political pressure on the legislature to approve charters for additional banks. The increased demand for credit raised the profitability of existing banks, who would naturally oppose any loosening of charter requirements. At the same time, the demand for new banks increased the potential payoffs to accommodating legislators. The result

was intense competition for charters as political privileges (which they certainly were in any case), in a situation best described as rent-seeking both by charter grantees and by the grantors of bank charters. To quote Fritz Redlich:

When the fate of the Second Bank of the United States was sealed, the founding of new banks appeared not only desirable to debtors and have-nots, but also safe beyond doubt to investors and would-be capitalists. Consequently the state of New York,...was flooded with applications for bank charters; and the incorporators could proceed without fear of failure, backed as they were by a public eager to buy bank stock. This state of the public mind was, of course, sensed by the legislators, who saw chances for filling their own pocketbooks and for promoting their political ambitions. General corruption followed in the wake of this movement. (Redlich, p. 187)

After the dissolution of the Second Bank, laws known as the restraining acts remained in effect to grant banks exclusive rights to provide currency and make loans. They prohibited other non-bank individuals and associations from loaning and discounting bills, and were intended to curtail private, unincorporated banking. Repeal of the restraining acts, which had been passed before the Second Bank's charter was granted, was rejected by the New York legislature in 1835. As a result, open entry was delayed by a few more years. Interestingly, both the resistance to more open entry, and the desire to reform along free banking lines, were motivated by the same force—political self interest. The public choice aspects of this situation were recognized at least as early as 1837, by Richard Hildreth,

and have been reiterated by Fritz Redlich (1975) and others in discussions of the period.

The general commercial and banking panic of 1837 was precipitated by policy-induced upheaval in credit markets. A combination of events set off the crisis: a sudden large contraction of credit which accompanied the dissolution of the Second Bank as a federally chartered fiscal agent for the Treasury; and Jackson's specie circular. The political objective of the Jacksonian administration was to crush the Bank, which meant depriving it of all powers and privileges which it had formerly enjoyed. In particular, Jackson wanted to remove the government's deposits from the Bank and transfer them to state depositories. He also wanted to end the policy of making Bank notes receivable for the payment of public dues and to sell off the government stock held by the Bank. Once instituted, the transfer of deposits caused a large and sudden contraction of credit throughout the banking system. As Hepburn notes: "Deprived speedily of one-half of the public money, and its total deposits shrinking to nearly \$10,000,000, the Bank was necessarily obliged to curtail its loans, which caused a stringency, for which it was again attacked.¹² The number of banks more than doubled, increasing from 330 to 788 in the six years from 1830 to 1836. Note issues trebled with the deposit policy, reaching \$149,000,000 by 1836.

These events alone would have created a serious

liquidity crunch for many banks. But the problems were compounded by another administration policy which placed additional strains on the financial system: the specie circular. The circular, issued by the Treasury in 1836, required that land purchased from the federal government (mostly Western lands) be paid for in specie. Banknotes from Eastern banks which had been circulating in the West and used in the transactions were sent home for redemption, transmitting the demand for specie directly to the East. Thus the New York banks found themselves faced with greater specie demands than they were able to meet. By May of 1837 specie payments were suspended throughout most of the nation, including New York and New England. Hepburn describes the financial disruption that took place:

Over two hundred and fifty failures had already occurred...

In May specie payments were suspended and people were forced to take irredeemable bank-notes, as well as “shinplasters¹¹ of all sorts, in order to carry on the necessary transactions of each day...(Hepburn, p. 132)

New laws regarding bank practices sprung up in most of the states; in some, the laws made periodic reports or examinations mandatory. This was the case in New England.

The Suffolk Bank system continued, with some improvements, and doubtless served to avert greater disaster to New England banks. Rhode Island restricted loans and circulation of banks. Its banks, as well as those of Connecticut, weathered the storm of 1837-40 without a failure. (Hepburn, p. 142)

Thus the huge volume of deposits withdrawn from the

Second Bank collapsed the structure of loans based on the deposits, creating a currency panic overnight. The size of the Bank is itself a problem because of the potential for system-wide damage of this type. Writes Richard Hildreth in The History of Banks:

...there were in Virginia four banks,...Suppose such a run as to oblige them to withdraw half their notes from circulation; they must have diminished their loans upwards of one-quarter...On the same day, there were in Massachusetts sixty-six banks,...A similar run in Massachusetts would have obliged the banks there, to have diminished their loans, one-twelfth, which makes a vast difference for the customers, especially when we consider that the whole contraction, instead of falling in the first instance upon the few customers of four banks, would be divided from the very first, among the many customers of sixty-six banks. (Hildreth, pp. 129-30)

The specie circular simply intensified the inevitable liquidity crunch already underway.

The Development of Free Banking and Free Bank Experiences of 1838-63

In New York, business failures were blamed by New York Governor William L. Marcy on banks' refusal to provide adequate credit in the crunch. For this reason Marcy agreed to abandon sections of the restraining acts which reserved loan and discount operations to banks alone. But the change in the law, intended to provide easier credit through more open entry, really required a more general reform of banking laws, and a long debate ensued over the shape that this reform should take. Many proposals were advanced. Two

important proposals dealing with the issue of bank operations were offered by John MacVickar, “who at an early date elaborated the Free Banking idea while combining it in one plan with the idea of the government-bond backed bank-note.¹³ MacVickar, a professor of moral philosophy and political economy at Columbia College in New York, contributed the first free banking proposal (anonymously) to the debate. Redlich claims that the essentials of MacVickar's plan—open entry and government bond note collateral—had their origins with Smith and Ricardo in the British system.¹⁴ The ideas were enunciated as follows:

1. Banking is to be a free trade, in that it may be freely entered by individuals and associations under the provisions of a general statute.
2. The amount of bank capital is to be freely fixed by such individuals or associations, but only one-tenth to be invested at the discretion of the banks, the remaining nine-tenths in government stock.
(Redlich, p. 194—emphasis mine.)

Another important issue surrounding the establishment of free banking in New York was the issue of liability. Constitutional questions concerning the status of the corporation prevented “corporation” from appearing in the earliest proposals, which instead provided for the establishment of a joint stock company. Certain early proposals, notably that of Samuel Young (a member of the New York state legislature), favored unlimited liability along the lines of the Scottish joint stock banks. The version of the bill which was passed into law allowed

any number of individuals to form a joint stock company for the purpose of carrying on banking activities. These companies achieved limited liability through their articles of association, explicitly limiting the responsibility of stockholders. The explicit language was necessary because the common law joint stock company was an unlimited liability arrangement. Finally, the free banks were authorized as, "a species of corporation" which could "contract, sue, and be sued in the name of the president; the shares were transferrable, and the shareholders not individually liable for the debts of the association."¹⁵ Until 1840 there was a 12 1/2% specie reserve requirement against the notes, in addition to the 100% bond collateral. In 1840, New York required its country banks to keep redemption balances in New York city banks, and liability laws were amended. Trescott reports of the new free banking law:

Among all of the state experiments, however, the one that most notably swept the country after Jackson's "Bank War" was free banking. Originating in New York, the policy had by 1862 spread to fifteen states...The free banks were permitted to issue bank notes, but only if these were backed up 100 per cent (or more) by government securities or other approved earning assets deposited with state banking authorities. Where properly interpreted, this provision was intended to protect note-holders against bank failures;...This provision had a second potential not lost on state treasurers—it opened up a large prospective market for state bonds. (Trescott, p. 30)

Lanier contends that for the years from 1838-1850 average

losses in New York were in the range of a half of one percent per year, and a twentieth of a percent per year from that time until 1865.

There was something of a rush to take advantage of these new conditions, and by the end of 1839, seventy-six issuers of notes under the new law showed \$6,000,000 outstanding. A third of these went out of business during the troubles of 1841-42;... (Lanier, p. 206)

In The Free Banking Era: a Critical Reexamination, Rockoff calculates net losses to noteholders in New York during the longer period 1838-47 at \$610,743.88, of which about half are recovered from other bank assets. These represent noteholder losses only on thirty banks failing in the early 1840's. Other losses not calculated include 100% losses to stockholders and depositors at the failed banks, plus implicit losses due to the disruption of business and trade necessitated by the banking disruptions. At least twenty-seven more banks failed in New York by 1860. Rockoff's net loss calculation figures noteholder losses of \$72,849.00, on a total volume of notes outstanding of around \$2,428,300. Hepburn's figures for 1838-50 are about the same--thirty-two bank failures with noteholder losses at \$325,487.00; an additional twenty-five failures between 1850 and 1861, at a calculated loss to noteholders of \$72,849.00. Attempts to measure the dollar losses economy-wide due to suspension of specie redemption, overexpansion, and bank failure during the general panic between 1837-43 run as high as

\$800,000,000.¹⁶ We know that by 1855, the New York city banks alone had a combined capital of over sixty million dollars, one-fifth of the entire nation's banking capital. New York's share in the losses is not certain, though anecdotal reports clearly indicate substantial losses in the state.¹⁷ In addition, 1855-57 saw a declining ratio of specie to deposits—from 25% to 18%—coupled with accelerated lending. By 1857 bank loans in New York totalled \$122,000,000, and redemption panic struck. The banks began contracting in August, sending securities prices downward. When the Ohio Life Insurance & Trust Co. failed that month, several banks failed as well. Loans were reduced by eight million dollars in a two week period. Lanier verifies the commercial disruption created by the banking panic:

Commercial paper could not be discounted and on the street money commanded as much as five per cent a month. Checks had to be certified. Though the older banks almost without exception maintained their lines of discounts, it became only too clear that the other inexperienced financiers were in a state of “blue funk,” and were trying to save themselves from the results of their own rashness at any cost...

Deposits had actually increased \$500,000 between September 5th and 19th, though further loan reductions of \$3,500,000 had been forced. But now the depositors took fright, and in three weeks some \$14,000,000 were withdrawn;... (Lanier, p. 217)

By October of that year twelve hundred business failures in banking, manufacturing, railroads, and trade led the New York banks to suspend redemption. They were followed

immediately by the New England banks. Life in New York at the time is described as bleak—riots, thousands forced into charitable food lines, and business devastated for several years.

Although redemption of notes was resumed in December of 1857, deposit redemption was delayed much longer. Losses were widespread and substantial, both in New York and in the other states. Measurable losses for the country include over 5100 failures in business, banking, and trade; the liabilities involved exceeded (by Hepburn's estimate) \$300,000,000.¹⁸

Commodity prices and imports also reflected the panic.

In 1857, the year of the panic, circulation of the New York state banks ranged from 8.9 million to 6.6 million dollars. Using estimates of noteholder losses alone for the period 1850-61, we can calculate the extent of those losses at around 1% of total circulation. These figures may, however, be deceptively small. We know, for example, that New York city banks were increasingly deposit-oriented. Deposits for all banks in New York stood at \$95,800,000 in early 1857, falling to \$78,500,000 by year's end. Ten years earlier, deposits in the New York city banks alone totaled \$28,000,000, and the ratio of notes to deposits in the city banks was calculated in 1850 at seventeen per cent. Using this as a minimum level of deposits in New York banks in 1850 (the remainder of deposits in country banks in the 1847-50 period are not included), total losses in New York

for the period 1850-61, including losses to depositors, must be at very minimum in the range of (\$72,849—outright losses to noteholders) + (the deposits underlying those notes, of which the notes are but 17%) = \$72,849.00 -f \$428,524.00, or \$501,373.00. Equity losses, at 33% of total liabilities, are not included in this estimate. Measured losses under free banking, so far as they are available, may seriously underestimate the dollar value of actual losses, to say nothing of non-dollar costs of bank suspensions and failures.”¹⁹

Disruption of economic activity was widespread and prolonged following the panic of 1857—even though suspension of note redemption in New York was relatively short.

Changes in Aggregate Bank Conditions from

Jan. 1857 to Jan. 1859

Changes in Deposits	-\$45,000,000.00
Changes in Circulation	-\$60,000,000.00
Changes in Specie Holdings	+\$74,000,000.00

Increases in specie holdings were due mostly to increases in New York state's banks. In New York, loan contraction of \$43,000,000 was necessitated by the panic. The other states combined suffered \$57,000,000 in loan contraction, making New York the state most severely affected by the crisis. The panic had swept through every state, and some, particularly in the South and West, did not resume

redemption until much later. New England had effectively resumed redemption even before New York. The Treasury faced severely diminished revenues as a result of plummeting imports.

The argument that there are losses to the public even in the event that the bank's liabilities are eventually made good was not stressed at the time. Nevertheless, it is an important consideration for at least two reasons. First, losses in the form of opportunity costs and default of contingent obligations occur when banks suspend redemption or fail. This is true even if noteholders and depositors are quickly or eventually paid off—the unexpected nonavailability of creditors' deposits causes embarrassment and distress when deposits are (even temporarily) unavailable. Obligations contracted on the assumption that deposits will be available cannot be met, at least for a time. Of course, the severity of the disruption will vary according to the length of suspension, the time it takes to liquidate assets (in the case of a failed bank), the size of the bank, and the number of banks involved in redemption difficulties. It is clear, therefore, that suspension with eventual redemption has real consequences, and is not “neutral” in its effects.

The second reason why even suspension is harmful has to do with evaluation of the riskiness of banks, and with the question of whether compensation is sufficient to

make depositors indifferent between immediate vs. delayed redemption. Deposits represent contractual (even if partially implicit) obligations between the bank and its creditors. Depositors may reasonably evaluate the riskiness of those deposits, and therefore the probability of default on the obligations, in one of two ways. First, depositors may be able to evaluate the reputation of the bank based upon the quality of its assets—an evaluation which may be difficult for the individual depositor to make without detailed knowledge of the bank portfolio. Secondly, depositors can take advantage of explicit information concerning default premiums. These are specified in the law under which banking concerns incorporate. The penalty due a depositor is determined by legislative decree for all banks in the system under free banking—uniform across banks in the state. Thus for some banks, the premium will lead depositors to undervalue the risk associated with a particular bank, and to overvalue the risk for others. In other words, unless all banks in the system are equally risky and the legislatively-determined default premium coincidentally matches the default premium which markets would generate, it will simply be too high for some banks and too low for others. The distortions this causes are significant. A legal premium fixed “too high” will lead depositors to undervalue risk, and therefore to behave less

cautiously than they otherwise would. A greater quantity of notes will be demanded from a bank whose risk is undervalued. With a larger circulation than would otherwise be the case, the impact of bank suspensions and failures by these banks will be correspondingly larger. The converse is true for banks whose risk is overvalued by the public. The set penalty premium will be “too low” for some banks, causing individuals unnecessarily to avoid those bank notes. In this case, circulation of the less risky banks is smaller than it should be, or than it would be in a market-driven environment. In both cases resources are misallocated. Some banks receive too many deposits to lend, and others too few, and the types of assets acquired will differ according to the institutions’ attitudes toward risk. De facto certification of banks' riskiness, through uniform, administratively-set default premiums, can lead depositors to unknowingly patronize riskier banks because the legally fixed default price obscures important information about the true risk. Thus the second problem for depositors in the event of suspension (and certainly of default) is a problem of impaired knowledge--the observed (legal) default price fails to capture all of the relevant information about the riskiness of the bank. For this reason even suspensions, while they may be temporary, can be said to cause harm. In the case of the safety fund banks, the incentive for one bank to profit essentially at the expense of all other banks

and the public proved to be the system's undoing. For the free banks, at very least this system leads (except coincidentally) to an allocation of resources that is less than optimal. Given true risk, New York banks' noteholders will be induced to hold too few of some banks' notes and too many of others'.

In addition to reassessment of losses under free banking, measures of “banking power”—adequacy of banking facilities throughout the period—indicate the relative strength of New York's economy under free banking vis-a-vis other states and regions. It is interesting to compare the progression of banking power and banking power per capita in the Middle States (in which New York is grouped) to those measures in New England.

	Banking Power (in millions)				Per capita (\$)			
	1830	1840	1850	1860	1830	1840	1850	1860
N.E.	54	89	114	209	27.66	39.98	41.89	66.89
Middle	107	131	185	371	25.87	25.64	27.95	44.35
U.S.	248	454	452	886	19.33	26.64	19.47	27.98

(Hepburn, pp. 158 and 174)

While banking power, which includes the capital, circulation, and deposits of reporting institutions, are consistently greater in the Middle states than in the New England region, the relative amount per capita is consistently higher and growing faster in New England, an extremely stable banking region over the entire period, as

Chapter 4 presents details more fully. This is consistent with the economic growth and monetary stability experienced in New England. In addition, New England's currency was quite elastic. Although minimum specie reserve requirements were eventually adopted in New England, it is clear from accounts of the regional banking operations that the relevant constraint was contemporaneous redemption demands. At times the various specie reserve ratios in New England appear quite low, but evidence of the banks' stability tells a story of unparalleled safety. And the Suffolk system required permanent deposits as well as redemption deposits, so that effective reserves were often quite a bit higher than the statistics reveal. New York's currency under free banking law, by contrast, necessitated a greater reserve ratio than did the New England states due to the inelasticity inherent in bond-collateral-reserve currency. So-called "free" reserves, those available on a day-to-day basis for redemption purposes, were actually quite small given the New York system. In fact, the 93% + reserves against notes did not become available until banks were already facing a redemption crisis—at which point the collateral bonds could be sold off. While New England banks prior to 1860 generally held less than 13% apparent specie reserves against all liabilities (a little over 31% against notes alone), only increasing the amount to around 14% in

1861, New York banks in 1861 were holding over 27% specie reserves against combined liabilities. Reserves against notes alone were officially in the 93-94% range. In spite of this huge reserve, New York banks did not perform as well under the restrictive measures of free banking law as did the New England banks under the Suffolk system. Of the banks during the period:

In both lending and money creation, the banks maintained very uneven standards of performance...Of the 2,500-odd banks formed down through 1860, about a thousand closed within ten years of opening—but virtually the same number continued in operation for forty years or more. More than one-third of the banks formed prior to the war of 1812 reached the century mark. New England banks had an enviable record — nearly two-thirds of them survived at least forty years. (Trescott, p. 23)

A list of the oldest banks still surviving through 1860 is provided by Trescott, and it affirms the relative stability of the New England banks. Of the twenty-two oldest surviving banks in 1860, only three are located in New York—the Bank of New York (1784), the Manhattan Company (Chase Manhattan Bank—1799), and the New York State Bank (State Bank of Albany —1804), while fourteen are New England banks. All of the banks were founded before 1805. They therefore include banks which operated in New England under the Suffolk system, but not originally the New York state free banks.

According to Trescott, banks generally experienced a high birth rate as well as a high death rate--"More than

half of the banks operating in 1860 had been established within the previous decade.²⁰ This last statistic, taken with earlier statements on the longevity of banks generally, indicates that individual banks tended to perform either very well or quite poorly, were most likely to survive for longer than ten years if located in New England, and were also more likely to achieve long life if located in more developed regions, “where shortage of capital was not such a desperate plight and where banks could find plenty of low-risk short-term commercial loans,” according to Trescott.²¹ These characteristics most closely fit the New England region, where in 1863 over half of the banks had been in operation a century or more.²²

Lanier notes that in a joint statement of New York city banks for 1847, there were twenty-eight million dollars of deposits, eleven million dollars in specie, and less than seven million dollars in circulating notes.²³

While the ratio of total bank liabilities to specie was five to one, the ratio to which banks paid attention after their troubles with the safety fund — the specie to circulation ratio — was over 1.5 to 1. New York city banks (like Boston banks throughout the same period), expanded their deposit business and tended to neglect note issues, leaving that activity more and more to the country banks. And (like the New England country banks), New York’s country banks were prone to extend note issue beyond their ability to redeem the

notes on demand. New York banks undertook contractions and general suspensions between 1836-38, and again in 1857. In these instances, the New York banks performed as well as banks located almost anywhere else in the country, with the important exception of New England.

Although problems in New York's free banks were not as severe during the era as with free banks elsewhere in the country (notably Michigan), they occurred , predictably, just at those times when banks needed elasticity in their note issues and flexibility in their portfolio composition. Because banks were neither elastic nor flexible in these respects, suspensions and bank failures were probably more widespread and prolonged than they otherwise would be. Inelasticity of the currency can be attributed to the bond-secured design of free banking law. But the special conditions requiring banks to invest up to 90% of their capital in government bonds with a specified yield, or in other specified bonds of even higher yield, paved the way for the banks* undoing from the first.

The role of government bonds as collateral may have heightened the crisis of 1857 due to the effect on public confidence of a “certified” collateral (lending government's reputation to the free banks via the collateral bonds), and to the effect of a growing government debt on note issue when banks use collateral bonds to multiply note issue in an

environment of expanding discretionary debt. This last situation occurs as delayed-redemption Treasury notes and government bonds are used as reserves against further note issues. As the debt of the federal or state government increases, so do note issues, leading ultimately to a depreciated currency for those banks subscribing to the debt. One effect of discretionary government-debt-turned-reserves for the free banks was to make the banks less resilient in the face of outside “shocks”—declining asset values, commodity reserve drain, and the like. When it came, then, the crisis in the New York free banks (particularly for the 1857 panic) was aggravated by a combination of factors: the requirement that notes be redeemed in specie, irrespective of the public's willingness to accept other bank liabilities instead (such as deposits); the scarcity of free reserves; the inherently inflationary characteristics of government debt as note collateral, and the subsequent worsening of banks' specie reserve position with that inflation; the requirement that payments to government (as for public lands, according to the specie circular of 1836) be made in specie, while government redeemed its own obligations (as today) in other obligations; the deposit of public monies (the “surplus”) into the state banks, redeemable on demand by government. All of these factors conspired to varying degrees to destabilize the long-run position of the free banks. As

long as the government was not rapidly increasing its debt, and therefore bank reserves, as long as the Treasury did not deposit a surplus with the banks, as long as the banks did not subscribe heavily to the debt, and as long as banks were free to adjust asset portfolios so as to lessen the risk of declining asset values in those portfolios, they remained relatively stable. This was the case in New England. In New York, where banks were required by law to subscribe exactly to those forms of bond collateral most likely to cause banknote inflation (including railroad bonds, an investment heavily subsidized by government), where alternative redemption possibilities (to specie) were not available, and where the subsequent inflation caused the market and par values of the collateral bonds to diverge, monetary disruption was inevitable. New York escaped even worse effects of the monetary disruptions because its free banking laws more effectively prevented wildcat banking than did other states'. For even when bank managers anticipate the effects of an inflation of reserves, subsequent note depreciation, and a suddenly increased commodity reserve demand, they will have difficulty timing their own expansion and contraction of note issues so as to maximize profit without getting caught short when specie demands rise. The likelihood of miscalculation by the individual bank is extremely high under these circumstances, thus many banks

will get caught in the crunch.

When the first case of failure actually occurred in 1840, the failed bank's securities sold for sixty-eight cents on the dollar.²⁴ Changes in the free banking law in that year eliminated mortgages and made New York state stocks alone, and later New York state stocks plus United States bonds, eligible collateral. By 1846 the legislature prohibited the formation of any but free banks, prohibited suspension of specie payments (violation of this provision was avoided in 1857 on a technicality), created double liability of shareholders, and established noteholders as primary claimants on the bank's assets.²⁵

Meanwhile, the U.S. had in 1839 issued new Treasury notes—along with a reissue of 1837 notes—totaling over thirty-one million dollars. In 1846, the war with Mexico necessitated new funds. To meet this demand, the U.S. government issued its own notes, totaling \$20,000,000. Once issued, as often occurred, the notes became part of the circulating medium. Partly in order to fund the notes it had issued for the war with Mexico, and partly to attract new funds, still more bonds were created during this period. Since these bonds were eligible as note collateral for the free banks, note issues were even further multiplied by the banks.

The establishment of a central clearinghouse in New York in 1853 probably helped to mitigate the problems that free banks might otherwise have experienced, speeding information

flows and more quickly forcing restraint by the banks. Nevertheless, twenty-five bank failures did occur between 1850 and 1861, with losses as predicted.

At the time the total number of banks in New York stood between fifty and sixty, so the number of failed banks is not entirely insignificant, noteholder losses notwithstanding. In The Free Banking Era: A Reexamination (1975) Hugh Rockoff discusses the effect of free banking on state bonds and state bond prices. One may conversely apply the statistics to a discussion of the effect of state and U.S. bond absorption on the free banks.²⁶ As Rockoff details, the New York state laws were copied, to varying degrees, by most of the other states of the union at some time between 1837 and 1863. Because other states did not build in as effective guards against outright fraud, especially in the par vs. market value of bond collateral accepted, the experiences with free banking elsewhere are not only marked by instability of the New York type, but by wildcatting as well.²⁷

Summary

In its nineteenth-century American incarnation, free banking represented a system of bank regulations which were intended to furnish heretofore ineffective safeguards against fraud and overextension of note issue. The unique system created by these regulations coupled otherwise free

entry into the banking business with a mandatory deposit of specific collateral bonds as security against note issues. New York state led the way in this movement with the Free Banking Act of 1838.

Given the regulatory nature of this banking system, it seems at first puzzling that the term free banking should have been applied at all. Entry was not, in fact, completely open to all—minimum capitalization and other requirements must first be met. The name free banking was used because the new regulations eased some of the prior restrictions on bank entry via the rent-seeking chartering process. Nevertheless, the new law imposed specific legal constraints on the banks, and has been viewed by some historians, notably Fritz Redlich, as the outgrowth of varied economic and political influences of the day.

Ultimately, then, the American system of free banking as exemplified in the New York state experience should be scrutinized in a different light than systems based on a truly laissez-faire approach (most closely approximated by the Scottish system of 1800-45, see White, 1984a). The story of New York*s free banks is more accurately told as the story of a regulated banking system beset by a variety of problems, problems which can be traced to 1) the rigidities of free bank regulation, rather than the inability of laissez-faire or market mechanisms to provide

sound money and a stable monetary system, and 2) the destabilizing effects of state and government debt on this rigidly designed system. The market-directed approach to banking was never tried in New York, therefore we must look elsewhere (New England, Scotland) for insights into the market system in practice. For these reasons, we should avoid formulating opinions of laissez-faire banking based upon the mixed results of the New York free banking experience.

Notes to Chapter 3

1. Hepburn, p. 89.
2. Ibid.
3. Redlich, p. 88.
4. Redlich, p. 90.
5. Lanier, p. 200.

6. This argument that larger banks effectively subsidize smaller banks is one that has been repeated in modern times by larger banks insured through the FDIC. The validity of the argument in the modern case may be less secure, however, given the Federal Reserve's reluctance to allow a large bank to fail (see Continental Illinois case).

7. The principles of diffuse costs/concentrated benefits are most ably stated by the public choice theory. This theory in practice is clearly exhibited in the behavior of banks under the safety fund system.

8. Lanier, p. 200.
9. Lanier, p. 201.

10. Hildreth, p. 201.
11. Hildreth, p. 201.
12. Hepburn, p. 110.
13. Redlich, p. 191.
14. Redlich, p. 191.
15. Redlich, p. 201.
16. Hepburn, p. 157.

17. Lanier, p. 212.

18. Hepburn, p. 172. Of course, many losses were unmeasurable—see discussion in this chapter and in chapter two.

19. Discussed elsewhere in this chapter. Calculations of these estimated losses, where they are based on widely scattered information taken from a variety of sources, is necessarily subject to error. For these errors, I alone am responsible. Material for these calculations draws heavily from Trescott, Hepburn, Rockoff, and Lanier (principally). Despite the differences in sources and time periods in which their analyses were presented, the reader should be aware that there is a remarkable consistency in the numerical data among them. Thus, at least as a starting point, the data are probably as accurate as we can reasonably expect, remembering that regular bank reports were not required until late in the era and that compliance was less than 100%.

20. Trescott, p. 31.

21. Trescott, pp. 23-24.

22. Trescott, p. 4.

23. Lanier, p. 211.

24. Hepburn, p. 144.

25. Hepburn, p. 145.

26. Rockoff, p. 46.

27. Ibid.

Chapter 4: Banking Experiences in New England 1811-18

Introduction

In this chapter we turn to questions about the state of affairs in New England banking which are central to this study. The concerns we examine in this chapter are questions of the stability *of* the banking business in the collection of states comprising New England, Connecticut, Massachusetts, Vermont, New Hampshire, Maine, and Rhode Island—a region in which, as we explain in this chapter, a cohesive monetary system flourished. The stability of the monetary system is evidenced by New England banks' ability to withstand monetary and commercial crises which had their roots in the federal government's debt policies and in the banking laws and practices of states outside New England. Related questions of which will be of interest in this inquiry into the nature and operation of New England banks are ones concerning the incidence of banks' suspending redemption as well as of broken banks in New England; of the growth and adequacy of banking facilities in the region; of the built-in safety mechanisms of the system and the results of those safeties for bank noteholders and depositors; and

particularly of the role of the Suffolk bank in the course of New England banking history.

Despite the difficulties of producing exact data from the period, evidence from different sources concerning banking operations and the economic climate in New England is remarkably consistent. Banking data reported for the period by different authors, writing from the 1800's to the present day, hardly varies from one account to another. This appears to be true even where difficulties in producing exact data from the period exist (e.g., missing bank reports). Collating and examining the existing statistics will go far in revealing the nature and extent of banking operations in New England, and sources for these statistics include bank reports, state banking authorities, and statistical estimates for missing data.¹

State chartered banking, and the authority of the state to establish the legal environment of banking, prevailed throughout the period. Since free banking laws were not enacted in New England states until the 1850s, the operations of New England banks for most of the period under study are determined by state banking authorities and by banking arrangements unique to New England as a region, most notably the spontaneous emergence of the Suffolk system.

The role of the Suffolk as a voluntary clearinghouse and therefore a quasi-central bank appears to be extremely

significant for New England banks and for commercial interests in New England, although the Suffolk's control over local banks was not what one might suppose. Fenstermaker, et. al., for example, consider the effects of the first and second Banks of the United States as well as the Suffolk in restricting supply of money and conclude that none was very successful in this regard (1986). In fact, when one looks at the apparent result of the operations of the Suffolk, it is clear that the money supply, especially as measured in the circulation of country bank notes, grew over the period. Rockoff (1975) and others have noted that this was clearly not the intent of the Suffolk. Rather, the enhanced acceptability and circulation of the country notes was an unintended consequence of the Suffolk's operations.

The thesis advanced here argues against the view of the Suffolk as a weak central bank because it failed to curtail the circulation of country notes. The Suffolk exerted an extremely powerful control over the money supply of the New England region because it forced banks to supply sound money. It actually "drove out" the bad notes with redemption claims. Overall circulation, and thus the money supply, increased because sound notes were more widely and easily acceptable to bank customers. The notes of country banks were of far better quality than they had ever been

before the Suffolk, so they remained in circulation based upon the certain knowledge that they would be valued at par and could be redeemed for specie at any time. In this way the Suffolk's effectiveness as watchdog and clearinghouse in New England was by far its most significant contribution to the stability of banks and to the commercial life of the region. An important part of this thesis argues that the presence of the Suffolk, rather than the state charter requirements, imposed binding constraints upon the New England banks, and that these constraints are largely responsible for the relative success of New England banking. The extent to which New England's banking system succeeded in the face of various crises and downturns (1817, 1837, 1857) is seen even more clearly by contrast to the free banking experiences in New York state, described in the previous chapter. In answering the questions we have set for ourselves, then, we conclude that the constraints imposed by the voluntary operation of the Suffolk system in New England produced a safer and more resilient banking environment than did the constraints imposed by free banking laws in New York. In addition, the voluntary clearinghouse arrangements in New England are a nearly laissez-faire arrangement, providing considerably more latitude and "freedom" in critical areas than the free banking system in New York. Finally, we discuss some reasons for the superior performance of the New England banks during the period,

particularly during commercial and monetary crises.

Bank Entry and the Industry

The traditional bank charter system was the only means of entry prior to the advent of free banking laws in the states. Minimum, and in many cases maximum, capitalization requirements were established by the state banking authorities. In spite of this, banking and financial services appear to have been attractive enterprises, creating much rivalry among the banks and competition for customers, particularly in the large commercial centers.²

The effects of this intense rivalry are evident early in the struggle between the Suffolk Bank and the New England Bank of Boston over redemption of country bank notes between 1818 and 1820. So fierce was the competition to acquire country notes for redemption, in fact, that the discount on the notes fell to less than 1/2 of 1%, and in 1820 the banks temporarily abandoned the business as unprofitable. Since entry into this aspect of the business was open to all challengers, rivals were free to try to capture any economic profits that might be available. The market, however, succeeded in eliminating those profits once the competition commenced. Later actions of the Suffolk and its rivals reveal the benefits to the banks' customers in trade and industry that resulted from competitive forces. The records of the Suffolk Bank indicate that early in the period the

volume of its clearing operations steadily grew, with a concomitant fall in the discount rates on the notes cleared.

Because of the high degree of rivalry apparent among the individual banks of issue, information about the solvency of a particular bank was an item of concern to merchant customers. Legislators and banking authorities of the day, the banks' customers, and modern-day monetary historians as well have grappled with the informational characteristics of a competitive monetary system. In the period under study, bank note information was generated both by government mandate and by market mechanisms. The official mechanism consisted of the bank condition report, filed with state banking authorities annually or biannually. Bank condition reports, which came to be almost universally required by the states in New England, were not required from the outset, but were mandated as the size and importance of banking grew. They became standard practice by the late teens and early 1820's throughout New England.³ Even when available to the public, the bank condition reports were primarily useful to the authorities to whom they were submitted. They indicated that the bank was or was not following the minimum guidelines established by the state, but could not provide usable information about a bank's condition to its customers or to merchants on a day to day basis. At best, the state authorities could be

expected to discover the bank's insolvency or unsafe operating procedures after the fact, forcing it to liquidate assets or to take actions consistent with a return to prudent operation (contract loans and note issues, for example). But by this time, holders of the bank's notes would be likely already to have suffered a depreciation in the value of the bank note currency, or faced the bank's inability to redeem notes or deposits for the reserve currency. The condition report, then, had very little influence on the contemporaneous solvency of the bank. Long lapses between the reporting periods would have allowed for considerable latitude on the part of bank managers, thus failing to provide an effective constraint on management behavior. It is not clear whether requiring more frequent reports (monthly, weekly, etc.) would have provided an efficient solution to the information problem within this system.

In consequence, a market arose which provided timely information. An efficient reporting vehicle emerged which served to generate up to date information for merchants and bank customers, and to assist in providing the watchdog function over bank activities. These market-generated vehicles were the Bank Note Reporters⁶ and Bank Note Tables⁷ which appeared in local newspapers. The Bank Note Tables were essentially a digest of the more complete Bank Note Reporter⁸ (see Notes) statistics for banks in the local region.

In addition, regular newspaper accounts provided more distant financial news—from reports of the discovery of counterfeit notes (treasury notes, private bank notes, U.S. bank notes, etc.), to transcripts of congressional deliberations on taxes, government expenditures, war efforts, loans, tariffs, and the like—in fact, any news which would substantially affect commercial interests in any part of the country.⁴

New England as a Distinct Banking Area

New England seemed destined through its own geographic and commercial features to develop as a distinct region, especially in the banking field. Even though individual banking practices varied from state to state, a network tying together the interests of New England banks had already emerged by the second decade of the nineteenth century. This was the fledgling Suffolk system. Since Boston was the hub of commerce and trade in the region, offering physical resources for a harbor, plenty of water for nearby manufactures, and some inland water transportation, banking and financial resources located there.⁵ In addition, the states' residents exhibited both protectionist and antiwar sentiments, lobbying for insulation from foreign competition in manufacturing. Regional awareness clearly surfaced as the United States entered into war with Britain. The War of 1812 was

extremely unpopular, especially with the government's attempts to finance the war by borrowing for the purpose, found little support in New England. The end of hostilities did not reverse protectionist sentiment in manufacturing quarters. In fact, the New England region appears, throughout the era 1811-1863, to have enjoyed (and in a few instances suffered) a degree of independence (or perhaps insulation) in commercial matters surpassing that of any other region in the U.S. Why that occurred may be seen as an integral part of its institutional monetary arrangements. Turner (1958), for example, contends that the regional character of New England was intensified by geographic factors tending to isolate and insulate it from much of the rest of the United States: "Cut off from interior expansion by the Canadian boundary line and the northern watershed, on the one side, and by the mountain system and old New York settlements, on the western border, its early field of adventure beyond the home section was on the Atlantic Ocean." (p.39). Whether one concurs with Turner in attributing its intellectual climate and business instincts to Calvinist roots and a "community idea," New England represented a thriving and rapidly developing commercial and industrial region throughout the nineteenth century. The regional cohesiveness of New England is important for our study because of its unified banking practices, especially

under the Suffolk System. The fact that New England states already held common political and commercial interests may help explain why a distinctly different banking style emerged there. This regional system stands in clear contrast to the banking system in New York which has been described in Chapter 3.

Banking Conditions in New England

Of primary concern here is a description of the safety and stability of banks in New England as the 1811-63 period progresses. There is evidence that banks behaved competitively and sought to maximize profits subject to the real constraints facing them. In this competitive note-issuing environment, under specie redemption standards, the number of banks, discounts on circulating notes, circulating media per capita, scale of operations (in terms of deposits, loans, volume of circulation), and resiliency of banks in the face of general panics or monetary crises, indicate the relative success of the New England banks and particularly of the system that arose in New England. The legal/institutional framework, of course, was key in allowing such a system to develop and flourish (see the Introduction to this work).

Monetary statistics of the New England banks reveal some of the macroeconomic implications of actions carried out on micro level. They relate the growth of banking in

the region, the financial cohesiveness of the region, and address some of the questions of resiliency and banking strength which command our attention when evaluating the success of New England as a banking region. Before looking at the monetary statistics themselves, a brief description of items appearing in banks' balance sheets will be informative. Ambiguity in the meaning of an entry item can usually be resolved within the context in which the item is presented. This is particularly significant for the deposit category—deposits have at times been called discounts, or sometimes combined in the bank's balance sheet with non-bank deposits. Another problematic category in the data are “specie funds”—these may mean specie on hand, specie held with other banks or with redemption agents, and/or notes of specie-paying banks.⁶ Fenstermaker, Filer, and Herren provide extensive research into the monetary statistics of the period, and in their (1984) research clarify bank asset and liability classifications, allowing a more careful study of existing bank reports.

“Liabilities and capital are: ^{9,10}

Authorized capital: the maximum paid-in capital permitted by law.

Paid-in capital: usually refers to money raised by the bank through the sale of capital stock, but stock notes were sometimes used to purchase capital stock.

Notes in circulation: issued by the bank and held outside the bank.

Deposits: balances owed customers, which may or may not pay interest.

Dividends due: declared but unpaid at statement time.

Profit and Loss: net earnings or losses for either the reporting period or for longer periods.

Due to banks: balances to the credit of other banks which are currently on deposit in the reporting bank. These may be included in deposits.

Discounts received: loan interest collected but as yet unearned.

Other liabilities: any that do not fit in the above categories.

Assets are: ¹¹

1. Stock and Debentures: or “stock.”
2. Bank stock: common stock of private commercial banks owned by the reporting bank
3. U.S. Bank stock: stock in the 1st and 2nd Banks of the U.S. owned by the reporting bank.
4. Debt issued by the federal government.
5. Real estate: value of land and buildings owned by the reporting bank.
6. Notes of other banks: held by the reporting bank.
7. Due from banks: deposit balances placed with other banks, usually for the purpose of redeeming more distantly circulating notes of the reporting bank. These can include balances with redemption agents (non-banks).
8. Specie on hand: in the bank's vault.
9. Specie funds: the meaning varied with the bank. This meant specie on hand, on deposit in other banks, or occasionally could include the notes of specie-paying banks.
10. Specie reserves: includes both specie on hand and specie funds (where there is a distinction).

- 11 . Reserves: specie on hand, specie funds, notes of other banks, and due from banks.
- 12 . Other assets: any not counted above.¹²

The above statistical categories were used by Fenstermaker, Filer, and Herren to establish a fairly continuous stream of information about the period up to 1837. Furthermore, the reports dovetail well with older statistics of the period, adding to our confidence in the earlier research. The most significant reported problems were missing variables in a given state in a year, or no bank reports in a state in a given year. According to Fenstermaker, et. al. (1984), in a given year in any given state, bank reporting techniques tended to be uniform. States requiring bank reports have relatively complete data, and less than one percent of the possible reporting banks' statements are missing in years for which individual bank statements are available.¹³ Further research is cited below.

The Early Period: 1811-1836

Significant events in the development of U.S. monetary history following the first decade of the nineteenth century lead us to focus in two areas. The internal focus is on the expiration of the charter of the First Bank of the United States, and the political and financial concerns it aroused. But external affairs dominated the news as the United States prepared to go to war with Britain. This event, probably more than any other, consolidated feeling in the New England

states against treasury efforts to raise government revenues through war loans, and later, through treasury bonds and notes. This attitude that the New England states neither needed nor wanted to participate in the treasury's actions persisted until well into the 1850's. As a result, the New England region is distinguished from the rest of the nation by more than just the state laws governing its banking activities. New Englanders thought of themselves as members of a well-defined interest group, and created a commercial and banking atmosphere designed to serve those interests.

Primary among those concerns was the need to create a stable intraregional financial network. This meant ensuring that New Englanders could pass money, particularly in the largest commercial center of Boston, whose specie redemption value could be assured. The development of the role assumed by the Suffolk bank in Boston emerged out of this need, though the ends achieved by the Suffolk were not those it had originally intended—namely, to put the country banks, whose notes were accepted in Boston at discount, essentially out of the note-issuing business. Instead, the market generated competitive efforts to redeem the notes—redemption agents, the New England Bank of Boston, and finally the Suffolk—driving down the discount, increasing the circulation of the country banks' notes in Boston, and as a by-product also creating a stable regional financial

network through the Suffolk bank.

The most complete statistics on New England banks and banking conditions exist for Massachusetts. Individual bank reports were preserved for banks in all of these states, and aggregate monetary statistics have been reported which give us a picture of the condition of New England banks through the 1860's. Some additional information which the monetary statistics do not provide has been gathered from commercial histories, newspapers, documents, and political and bank histories of the period.¹⁴

The total number of banks in the United States increased dramatically over the period 1811-1836, growing from eighty-eight to seven hundred and eighty-eight in the twenty-five year period.¹⁵ Whether growth of banking in New England (in terms of numbers of banks) kept pace with the country as a whole is not so clear, though Hepburn's later evaluation of "banking power" in New England indicates that there was considerable growth in per capita banking services throughout the longer 1811-1863 period.¹⁶ The number of banks in New England can be counted more reliably by 1820, before which large discrepancies appear in the reports (some of which are estimated). According to one account there were fifty-three banks located in New England in 1811, or 60% of the eighty-eight existing banks in the U.S.¹⁷ A far more conservative account puts the number of New England

banks in 1811 at 29, or about 33% of the U.S. total. In 1830, the total had risen to 172.¹⁸ Bank closings and failures, moreover, were smaller by percentage in New England for these periods—which include the bank crisis of 1817-1819—than those in other states. It appears clear that the success of competitive monies in New England stems largely from the discipline of contemporaneous redemption and the voluntary clearinghouse operations of the Suffolk bank. The Suffolk system interposed a market mechanism between bank managers and the public which rapidly unified and stabilized the New England monetary system.

In a system of contemporaneous redemption, unlike an ultimate security system such as New York's, the issuing bank faces strong incentives to behave prudently. The permanent deposits at the Suffolk, for example, represent an ongoing opportunity cost to the redeeming bank, as they did not yield an explicit interest return. The implicit yield on the deposit represents a cost of maintaining par redemption and widespread acceptability of the notes. As profit-maximizing institutions, the banks' managers would have viewed wider acceptability of the notes and their ability to circulate at par in relatively distant locations from the bank as more than offset by the interest and liquidity losses attached to the deposits. The redemption deposit represented a further cost of doing business in the city, but would likely have been required even in the

absence of the Suffolk; prior to the Suffolk redemption agents were furnished with sufficient reserves to buy back the notes from their holders in the city.¹⁹ Furthermore, the absence of rigid bond collateral requirements in New England (there were no such requirements in law, nor were they part of the Suffolk plan) effectively made all of the banks' reserves available for redemption purposes. This higher degree of liquidity with respect to assets on the part of the New England banks implies that reserve/liability ratios could safely be smaller than might otherwise be thought prudent, since the banks enjoyed a greater degree of flexibility in meeting their redemption demands. The comparative case in New York reveals consistently higher reserve ratios, but significantly less flexibility and safety in this critical area. As a result of market-survival incentives generated by the Suffolk system, tendencies of the issuing banks to place more notes into circulation than the public desired to hold were effectively checked, with few losses or failures occurring. Evidence on the extent of these losses is presented in this chapter. Once the system was well underway, the threat of immediate redemption alone (backed by quick action if necessary) constrained bank managers to behave more prudently than might otherwise be the case. Attempts to produce a like result in New York did not prove as successful in that New

York banks were less resilient in periods of crisis than were their New England counterparts. The statistics on the number of failures of New England banks during both normal periods and periods of monetary crisis support this view.

By 1836, available statistics become both more plentiful, and fairly consistent. Hepburn places the total number of New England banks at that time at 291, while Fenstermaker, et.al., places it at 289.²⁰ The number of banks in New England, therefore, accounted for something very close to 37% of the existing seven hundred and eighty-eight banks in 1836.²¹ The sources of monetary statistics, while relatively abundant, are not well integrated. Based on the reports that banks themselves provided, it is possible to get an idea of the condition of banks, the extent of their business, and the types of assets and liabilities they held, as well as the services provided. Even so, bookkeeping practices of the banks were not always uniform or fully furnished, even in bank condition reports.²² More than one observer has noted the mystery of bank balance sheets which do not balance. This practice seems to stem from the view that some information was deemed irrelevant by the bank's bookkeepers rather than from an attempt to deliberately conceal bank information. In addition, aggregate regional bank statistics are helpful where individual bank records are incomplete, and allow us to round out the picture of bank activities in New England

within a given period. Reserve Ratios

One measure that gives an idea of the condition of banks is a reserve ratio, in this case, a ratio calculated on the specie reserves to notes plus deposits (see liabilities and assets above).

The results are shown in the following table:²³

Table 1

Date	Specie Reserves	Notes in Circulation	Deposits	Sp.Reserves/ (Notes + <u>Deposits</u>)
1811	1,859,611	2,910,764	3,850,866	.275
1814	7,652,896	5,651,242	10,073,617	.487
1819	2,059,914	5,511,915	3,479,483	.229
1825	3,391,184	12,164,240	4,966,430	.197
1831	2,725,421	11,967,892	11,834,075	.115
1836	3,953,416	19,723,187	18,877,139	.102

The above calculation represents something of a departure from the usual notion of reserve ratios in the period, in that the role of deposits (as bank liabilities) was often ignored. Deposit liabilities were not considered in the calculation of reserve requirements, even where reserve requirements were established by law, and generally could only be recovered, in the event of insolvency, through the sale of bank assets. Nevertheless, where deposit liability information is available, it provides us with some additional and useful insights into the banks' operating procedures. For this reason they have been included in the calculations in Table 1. The reserve ratios in New England

appear quite low, and in fact were lower throughout most of the 1811-63 period than in other regions of the nation. The redemption practices of the New England banks apparently allowed them greater economy with respect to specie reserves than was safely possible elsewhere, and the remarkable stability of the New England banks throughout most of the period speaks to that fact, despite the relatively low commodity reserve ratio. The performance of these banks demonstrates a strong empirical difference between the New England banks under the Suffolk system and the New York system of free banking. As the experience of New York banks demonstrates, a larger specie reserve to total liabilities ratio does not insure safer or more stable banks. Since the reserve ratios in New England do not explain their success, (some of the lowest, in fact, among the states), we especially want to consider other factors which influence monetary stability. These also provide insights into the near total absence of “wildcat” banks in New England.²⁴

The Question of Authorized Capital

The role of authorized capital stood in the center of a theoretical controversy played out in the legislatures and the tabloids of the period. On the one hand, capital was indispensable to the establishment of banks. On the other hand, it was uncertain exactly what the role of that capital was to be. Strands of mercantilism, and have-not

interpretations of the borrowed mercantilist philosophy, created a controversy which was resolved in practice by treating capital as a necessary but potentially troublesome element of bank operations. This led to the establishment of minimum, and perhaps even more importantly, of maximum capital specifications for banks.

The view that the proper role of the circulating media should be limited to accommodating the “needs of trade” was held by many individuals. Average paid-in capital in 1811 was \$230,517.24 for the twenty-nine New England banks.²⁵ This is less than the maximum for the banks, which would be, on average, \$362,758.62. In 1836, average paid-in capital (for 289 banks) was \$177,161.50 out of a maximum, on average, of \$240,034.26. It is evident that the size of authorized capital, dictated by statute, was generally declining over the period. The reasons for this trend are not entirely clear, however, we can make some educated guesses as to the probable cause. The belief that note-issuing banks were the cause of commercial and monetary crises was widely held, especially by those in favor of a United States bank with powers to control the state banks. Why authorized limits on bank capital did decline over the period is not expressly stated. There was, however, strong sentiment concerning its possible abuses if “too large”, and the idea is reiterated throughout the literature of the period. Linked to this view is the long-standing distrust

of small notes, of denominations used in hand-to-hand currency. Banking authorities feared that banks with “excess” capital would be forced to issue small notes (having no employment for their capital in legitimate business enterprise) according to Hildreth and others. In addition, small notes were thought to drive specie either into private hoards or into export.²⁶

Whatever the true cause or collection of causes for these capital size limitations, the period 1811-1836 was a tumultuous one for banks everywhere in the United States, and New England banks had their difficulties as well. In 1830 there had been 172 banks on record in Massachusetts, Maine, Rhode Island, New Hampshire, Connecticut, and Vermont. Of these, 19 banks had “failed or discontinued business.” The closings in New England represent about 11% of the total bank closings in the United States for that period, and the same percentage of the total number of existing New England banks. Bank note reporters carried news of notes discounted or refused at the Suffolk Bank early in the period, and local newspapers, which acted as a kind of digest of news from everywhere, served to spread the information to the general public. In spite of these difficulties, losses in New England were comparatively small (as will be detailed below).

One of the factors which appears to have insulated the

New England states from greater monetary disruption in the early period is the reticence of New Englanders to support the treasury and its efforts to finance the war of 1812. It is clear both from reports carried in the newspapers of the 1811-15 period, and from banking statistics, that the war was extremely unpopular in New England. Dewey reports the following after the second loan of \$16,000,000.00 was placed in February of 1813:

It was soon discovered that little financial support could be expected from the Eastern states,—largely because of the commercial interests, whose prosperity had long been endangered by Jefferson's policy of embargo, non-intercourse, and finally the declaration of war. The subscriptions, for example, to this loan were geographically as follows:—

States east of New York	\$486,700
State of New York	5,720,000
Philadelphia	6,858,400
Baltimore and District of Columbia	2,393,900
State of Virginia	187,000
Charleston, S.C	354,000

New England carried her opposition to an extreme point; of the \$41,010,000 borrowed by government, exclusive of treasury notes and temporary loans up to the end of 1814, she contributed less than \$3,000,000. (p. 133)

It is commonly believed that the absence of a Bank of the U.S. caused the crisis that developed between 1811 and 1815. What may be overlooked is the role government debt issue and efforts to finance military operations in precipitating the monetary crises. The war with England placed incredible strains upon the finances of government, and forced the treasury to meet government's demand for

finances by issuing its own notes. Timberlake (1968) points out that a huge inflation was set in motion just as the charter of the First Bank expired, and it would be a serious omission to fail to take the relationship between that inflation and the subsequent recession of 1819 into account (Timberlake, 1968; Temin, 1969, and Hammond, 1957).

The series of events which followed the issue of treasury notes constitutes what we now call a business cycle. Congress authorized the sale of government securities in 1812 to offset the fiscal deficit created by the war effort. When this was not entirely successful, the idea of issuing treasury notes emerged. While not claiming to *be money*, the notes nevertheless circulated in many instances *as money*. In issuing these notes, the government had declared them to be legal tender for all government transactions. More complete discussions of these events are found in Temin (1969), and Hammond (1957). This carried enough weight with the public to establish them as a popular, if not legal, tender in private transactions as well. We can see the embryonic stages of modern central banking emerging in this scheme: 1)the notes were interest-bearing assets, 2)they were short-term (one year redemption) assets, 3)they were legal tender for the payment of government obligations, such as duties, taxes, and debts, 4) they could be used as currency, and 5) perhaps most importantly,

they could be used as bank reserves (Timberlake 1968, pp. 13-16). As Timberlake reports:

The first issue of \$5 million in treasury notes was authorized in June 1812. The notes were supposed to be redeemable in specie one year after their date of issue; but many of them circulated or were held as bank reserves [emphasis mine] long after they were due, that is, long after interest accruals had stopped. (1968)

It is significant in the context of this discussion that some banks refused to participate in the treasury note plan. Those banks were ones which maintained a strict convertibility standard, and would not accept the deferred redemption plan offered by the treasury. Located primarily in New England, these banks and the New England states did not enjoy the surge in prosperity that appeared in participating states during the period of the treasury issue (Hammond, 1957; Trivoli, 1979). Timberlake reports that outstanding treasury notes comprised about 27% of all bank reserves by 1813 and 75% of bank reserves just three years later (1968, pp. 15-16).

Even with large errors in the available data, treasury notes had to be a significant fraction of total bank reserves. This contention is also suggested by John Jay Knox's investigation and his remark, "The banks would give the Government credit for [the notes] and in return the Government could draw gold and silver from the banks. (Hildreth, 1837)

With the increase in bank reserves it became apparent that all of the notes in circulation could not be redeemed

for specie. With the exception of the New England banks, which had not been willing to participate in the treasury's plan, specie redemption was suspended. The blame for this situation was laid to rest on the doorstep of free banking. It was maintained, most hotly in political quarters, that the blame for the "redundancy of currency" lay in the *number* of banks which had sprung up in the country. Then Secretary of the treasury A.J. Dallas (1815) declared the government irreproachable in the matter of the suspension of specie payments, and called upon the state banks which had suspended payment to solve the problem that they had created. In this he characterized the treasury as an innocent victim of the Southern and Western banks¹ irresponsible behavior (Timberlake, p. 17).

The use of treasury notes as bank reserves amplified the effect they had on the monetary system. Banks could hold the notes as reserves and issue their own notes on top of the treasury's issue. This meant that the notes issued by the banks holding those treasury notes were backed by less and less specie. Matters worsened when the increased volume of currency began to be felt in the form of rising prices.

The monetary effects on the economy were just what should have been expected. Prices rose as the quantity of money increased. The market prices of gold and silver as commodities tended to do likewise. But since the mint prices of gold and silver were fixed by statute, their mint values tended to be cheaper than the market values. The consequence was that specie moved where the price-specie flow mechanism directed it, that is, where paper money was not inflated. (Hildreth, 1837, p.119).

By refusing to accept the cheap reserves offered by the treasury, the New England states had lagged behind the other states in their ability to create more notes of their own. Their inability to offer as much credit in the wake of this decision (and by comparison to the other states, which had been glad to accept the notes both as interest-bearing assets and as a means of multiplying credit through their own issue) caused them to lag behind the southern and western states, which were enjoying a relative business 'boom.' Notes issued by the New England banks, however, did not suffer the same depreciation in value as did notes of the other state banks. Since specie was flowing, among other places, to the New England banks, their notes were consistently valued at par in specie. Notes of other state banks circulated below par; the fact that the notes issued on New England banks were redeemable on demand (and that redemption was never suspended) also put them at a premium over treasury notes (Hildreth, 1937).

From the federal government's point of view, the responsibility for overissue clearly rested with the state

banks. The government contended that there were *too many* banks, that note issue had gotten out of hand because of it, and that the state banks would therefore have to absorb the contraction of loans and notes. The plan devised by the government called for redemption to be resumed, but under a new national bank. This bank would be needed to coordinate the process of making money sound once again. It would have the power to reign in the unruly state banks. The argument that in banking monopoly is good and competition is bad has a long history. Writing in 1837, Richard Hildreth observed:

In New England, where the monopoly of banking privileges has always been least complete, and where the banks have always been best managed, they went on, steadily increasing as they have always done since their first introduction; and that too in spite of the most strenuous and bitter opposition on the part of all existing banks, (p.13)

Hildreth examined aggregate bank capital in various states, their circulation, and the value of loans. His arguments are pointed at critics of open banking who fear that the presence of ‘too many’ banks will precipitate a monetary crisis. His argument is that the fewer the banks, the greater their power to destabilize the system in the presence of exogenous shocks. Large numbers mitigate the problem of bank runs; small numbers, and in the extreme monopolists, aggravate the problem (1837).

Although the treasury notes were not legal tender, the government was forced, through need to obtain the loans at

all, to make concessions to its eventual subscribers. An important concession came in the issue of small denominations of the notes, such that they could in fact be used to carry out ordinary transactions. Finally the treasury was forced to sell the notes at discount. Coupled with the provision that the notes were receivable everywhere for dues and customs, and that they were guaranteed by the United States, they became a de facto form of currency and represented a significant increase in the money supply through this avenue alone. The impact of the notes was greatly multiplied, however, via their use as reserves for the issuing banks. A tremendous inflation of bank notes issues based upon the treasury note subscriptions took place as a result, particularly outside of New England.²⁷ The full effects of this ballooning of note issues would form an interesting comparative study in monetary business cycles. We describe some of the effects of these uneven regional monetary expansions here, but for the most part they remain outside the scope of the present study.

As for the treasury notes themselves, it must be recalled that according to the provisions under which they were initially issued, the notes were not redeemable on demand. Legally, therefore, the notes were not identical to the obligations issued by competitive banks. The first four issues of the notes were redeemable one year from the date

of issue, at 5 2/5% (except the \$5.00 notes). The fourth and final issue to support the war carried no specific date of promised redemption at all.²⁸

Owing to the massive increase in bank notes placed in circulation by the subscribing banks, most banks outside of New England were forced to suspend specie redemption in August of 1814. Estimates of the extent of the depreciation of currencies range from 23-25% for Southern and Western states, to 16% for New York and Philadelphia. Where stricter policies regarding specie redemption had been followed and the subscription to the treasury notes most limited--New England alone—bank notes continued to circulate at par. The consequence of these prudent banking practices was felt, however, in the loss of foreign trade to Baltimore, Philadelphia, and to other southern cities. Locations where the currency was most debased attracted the trade precisely because the currency in which duties were paid was so far depreciated.²⁹ As Dewey notes of the conclusion of the war:

The drain of specie was most marked from the banks in the Middle and Southern states, so that when Washington was captured by the British in 1814 all banking institutions except in New England, where more conservative methods prevailed, were forced to suspend specie payments. The disorder of the currency naturally disturbed the operations of the treasury; imports sought the ports where currency was most debased; and Baltimore and Philadelphia thus enjoyed a greater apparent prosperity than Boston, (p. 145)

Finally, it is interesting to point out that treasury notes themselves were eventually sold at, and circulated, below par, particularly after the general suspension of 1814.

Bank Closings in New England

Massachusetts banks, in the year 1835 (of which there were 105), had an aggregate capital of 30.4 million, deposits of 12.0 million, loans of 48.3 million, circulation of 9.4 million, specie of 1.1 million, and held notes of other banks totalling 2.1 million. The method of issuing notes upon the general assets of the bank, the regional clearinghouse system, and contemporaneous redemption, and the self-interest of the banks themselves in maintaining their notes at par, led to a relatively sound system despite the quantity of specie. Since the banks of Massachusetts are the only New England banks for which continuous reports exist, they are used to give an indication of the state of banking in the region. The expiration of the first Bank of the United States did not cause a great expansion of bank note issues, therefore a contraction was unnecessary in

1819. The number of banks gradually increased throughout this period, and Hepburn reports that for the longer period 1784 to 1836 a total of ten Massachusetts banks suspended or discontinued. Total losses to shareholders and to the public (which also includes any depositor losses) are estimated to be \$300,000.³⁰ An interesting study by Fenstermaker and Filer (1986) on the role of the first and second banks of the United States and that of the Suffolk system in restraining credit in New England indicates that there was an increase in bank notes maintained in circulation as a percentage of total bank notes issued under the Suffolk System. Comparisons between the Suffolk's operations and a credit-restraining central bank are both misleading and right on target, however. The operation of the Suffolk System led to an (unintentional) improvement in the quality of bank notes. This unintentional effect was the result of stricter redemption standards and more efficient redemption techniques, which led to a speedy "weeding out" of bad notes and bad banks. On its own, this process of weeding out bad currency through adverse clearings has a contractionary effect on the money supply. A concomitant of higher quality currency, on the other hand, is increased public confidence in it. A secondary consequence of the Suffolk's operations is the increase in quantity of notes circulating in the New England states due to greatly increased public confidence in New England bank

notes. It is clear from reports that the notes which the public chose to hold and to circulate at par were notes issued by the New England banks and supported by the Suffolk Bank.³¹

By 1829, legal changes occurred which officially restricted banks in New England to note issues of not more than 12.5% of their capital. Although a reorganization of state banks took place using the method of bank issues backed by the general assets of a particular bank, it is clear from the histories of the period that the regional redemption system generated by the activities of the Suffolk bank produced the binding constraint on bank behavior. Consequently, a drastic reduction of discount on country notes, an increase in the proportion of country to city notes in circulation, a centralized pool of reserves, prevention of overissue by the country banks, and other beneficial results ensued. Some of these characteristics are more familiar in a central bank setting, yet they emerged as a result of market-guided institutions. The Suffolk was able to exert control over the country banks primarily through the voluntary clearinghouse operation and continuous redemption of notes. Trivoli elaborates on this mechanism in his monograph on the Suffolk System.³²

The Middle Period: 1837-1849

By 1837, considerable growth had occurred in the New England states in commerce and in services. The number of banks in the region had risen to 322, most of which were served in some way by the Suffolk's clearinghouse. From 1825 to 1858, Trivoli reports the following operating principles of the Suffolk with regard to country banks: 1) a permanent deposit which varied with the size of the bank, of at least \$2,000, plus a redemption deposit sufficient to cover all of its notes presented at the Suffolk, 2) only permanent deposits for Boston banks of \$5,000 each, 3) no interest payments for these deposits, 4) an agreement by the Suffolk to accept at par notes received from the depositor banks which were drawn on any New England bank in good standing; such deposits credited to the depositor bank one day after their receipt.³³ This last provision served to tie even the banks which had no formal arrangement with the Suffolk into the redemption network. Notes of non-depositor country banks were still evaluated for acceptance by the Suffolk when presented for redemption by its depositor banks. If the notes were issued by a New England bank in good standing, the non-member bank notes were accepted, and credited at par to the member bank with a one-day delay. Bank Note Tables which appeared regularly in the city newspapers in New England listed both the discounts which applied to various banks' notes, and the names of banks

whose notes were not currently accepted at the Suffolk.³⁴ Thus the information was made readily available to the public as well. Scarcely any bank in New England could withstand an unacceptable rating by the Suffolk bank, since the notes would soon be refused by depositor banks. This rating system imposed by the Suffolk is viewed from a market perspective as part of the healthy workings of a clearinghouse. Since the Suffolk did not enjoy the position of legal monopoly in this function, it was continually subject to competitive pressures both from its clients and from other would-be clearinghouse banks. The process heightened the awareness of all banks to the condition of other banks with whom they had dealings, and helps to explain the almost total absence in New England of anything akin to Rockoff's "wildcat" behavior.

Because of these informal interconnections between essentially all banks in New England, the depositor banks of the Suffolk constitute a kind of subsystem of the Suffolk clearinghouse—they had nothing to gain by dealing in unacceptable bank notes. Given the risk to their permanent and redemption deposit accounts (of which the redemption account represents part of the liquidity cost to the bank of competitive note issue), they could not expect to pass on losses in the form of disreputable bank notes to other depositor banks. No bank wanted to bear the cost of holding

notes which could only be redeemed via net loss to its redemption deposit. This meant that managers had an intense interest in keeping abreast of the reputation and acceptability of banks with whom they might have dealings. The result of this mutual interdependence, and a desire to avoid unnecessary risk and cost to the individual bank, was to provide a double safeguard against wildcat banking. Depositor banks at the Suffolk had strong incentives to refuse bad or poor quality notes in the first place in order to protect their deposits. The second safeguard against wildcat banking was exercised by the Suffolk itself, where all notes received were again evaluated for redemption on the basis of 1) membership in the clearinghouse and 2) bank reputation. Since no bank wanted to suffer the loss of its deposits, the systemic effect of these incentives was to successfully prevent individual banks from passing the bad notes on to other banks or to their customers. Consequently, it made deliberate attempts to wildcat extremely difficult.

One of the implications of the incentive structure created by the Suffolk is that the costs of maintaining a competitive monetary system were, for the most part, confined to the private costs of the banks themselves. In competitive currency systems outside of New England, these costs were often passed on to the public in the form of depreciated currency, suspension of redemption, and

uncompensated losses occasioned by weak incentives for banks to behave responsibly.

Size of the Industry: 1837-1849

In 1837, the five New England states of Massachusetts, Connecticut, Rhode Island, Vermont, and New Hampshire (Maine sometimes was counted with Massachusetts) had an aggregate circulation of \$19,000,000.00.

		<u>Table 2</u>	
		Banking Statistics of New England in 1837	
		Hepburn	Fenstermaker
Number of banks	319		322
Aggregate specie	\$ 2 mil.		\$2.7 mil.
Circulation	\$20 mil.		\$20.4 mil.
Deposits + Circulation	\$35 mil.		\$42.9 mil.
Specie/(Deposits + Circulation)	<6%		>6%
Average \$capital/bank	\$201,835.00		\$253,307.00

In comparing the older data of Hepburn (1915) with that gathered by Van Fenstermaker (1986), one is struck with the consistency of the evidence. Nevertheless, several ambiguities remain. It is unclear, for example, whether Hepburn's specie totals are for specie on hand, specie funds, or specie reserves, or indeed whether he recognized differences among specie categories. In addition, since the number of state banks in existence varies by source (and by

which states are included in the New England measures), the comparability of the more recent and the older work is less than certain. Nevertheless, important similarities remain. Van Fenstermaker's estimate of banks' circulation in New England for 1837 is extremely close to Hepburn's--\$20,441,153.00. The measures of circulation plus deposits that he reports are higher than the older statistics (Hepburn--1915), and both are comprised partly of estimated data.³⁵

Essentially the two reports yield the same result:

a specie to notes + deposits ratio of about 6%.³⁶ As compared to New York banks, New England banks had some of the lowest ratios (in most periods, the lowest) of specie reserves. The effectiveness of the Suffolk in insuring high-quality notes allowed the banks to economize on precious specie without endangering depositors—a significant economic benefit of the Suffolk Bank's operations.

Balance sheet totals for the years 1849 or 1850 are not available for the New England states. Instead, a measure called 'banking power,' composed of capital, circulation, and deposits of reporting institutions for 1850 is reported by Hepburn. The banking power measure is intended to provide an indication of the adequacy of banking facilities to the population, and is typically used for the period as a means of readily comparing different banking regions. The changes from 1840 to 1850 reveal the growth of banking facilities, accounting for changes in population, through

the decade.³⁷

	Banking power	<u>Table 3</u> Banking power/capita
1840	\$89 mil.	\$39.98
1850	\$114 mil.	\$41.89

Banking Crises

The actions of the treasury prior to the panic of 1837 coupled in 1836 with the expiration of the charter of the second Bank of the United States, and the war with Mexico in 1846, occasioned explosive behavior on the part of many state banks. In New England, the Suffolk Bank and the regional clearinghouse system were in full swing, and from 1841 to 1850, Trivoli reports that annual volume of redemptions of the Suffolk rose from \$109 million to \$220 million. During the panic itself, the redemption system served to maintain the integrity of New England banks, while widespread monetary disruption was the rule elsewhere.

A direct effect of the suspension of 1837-41 was an increase in the total number of banks in the U.S. by 113 in 1837 alone. New England thinking on the subject of the suspension is summarized in the following for the period from 1837 onward:

...taught by the disastrous experiences of the several years following the expiration of the charter of the Second United States Bank, some of the states seemed to realize an added sense of responsibility and enacted banking laws based upon sound and conservative principles and provided for intelligent and adequate supervision. In Massachusetts, where thirty-two banks had discontinued, the new law provided for examinations by state commissioners annually, and specifically if found undesirable. The Suffolk Bank system continued, with some improvements, and doubtless served to avert greater disaster to New England banks. Rhode Island restricted loans and circulation of banks. Its banks, as well as those of Connecticut, weathered the storm of 1837-1840 without a failure. (Trivoli p. 142)

The profitability of circulation far outstripped the costs to the issuing banks outside New England under the suspension, and according to Hepburn “under meagre laws and lax supervision the liability was almost insignificant.³⁸ The aggregate nominal capital of the banks in 1837 is reported at \$68,000,000, note issues at \$149,000,000, and money supply per capita at \$13.87. By the time redemption was resumed in 1841, 210 banks were forced to cease operations, aggregate nominal capital had nearly doubled to \$130,000,000, note issues were forced to contract to less than \$59,000,000, and the measure of the money supply per capita had fallen to \$6.87. Estimated losses to noteholders were \$800,000,000.³⁹ Losses to depositors were not measured.

Evidence from the history of the Bank of Hartford gives some insight into the state of affairs typical of New England banks during the period. In March of 1837, the

thirty-one banks of Connecticut had a total of \$3,998,325.30 in circulating bills. Specie on hand was \$415,386.10, for a ratio of notes to specie of about 10%. As a result of the banking crisis, the total circulation of banks in Connecticut was reduced by 1838 to \$1,920,552.45. Specie on hand rose to \$535,447.86, and the ratio of notes to specie rose accordingly to approximately 28%. The Hartford Bank itself reduced its circulation from \$434,079.06 to \$77,552.06, and increased specie on hand from \$46,661.44 to \$65,263.92. These changes in the Bank's balance sheet represent a reduction in notes outstanding of 82%, and an increase in specie on hand of approximately 40%. According to the Bank's managers, "...the Hartford Bank...at the date of resumption (May 10, 1838) was prepared, if called upon, to redeem every bill in coin.⁴⁰

The conservative laws enacted in the New England region at the close of this period included requiring the publication of reports on bank condition (this applied to many states, and was already the practice in some places in New England), as well as compulsory specie reserve laws. Along with the Suffolk system, these form the background of the legal/political environment of the time.

The Later Period: 1850-1863

The last decade or so before the enactment of the National Banking and National Currency Acts was a period of some changes in the banking environment of New England. Free banking laws came late to the region (1858), thus there is little to report of New England's experiences under this system. The lateness of the legislative changes may derive from the fact that New England's competitive banking system had thus far worked remarkably well, especially in contrast to its free banking neighbor to the south, New York. Nevertheless, the Suffolk system itself, which had been the mainstay of banking and monetary stability in the region, experienced some changes and eventual failures which altered the quality of New England banking in the last days before a national system was imposed upon the region. New England was less severely affected than other regions owing to the strength built into its monetary system by the clearinghouse of the Suffolk, and by contemporaneous redemption. These were extra-legal safeguards which were not developed elsewhere, in part because free banking laws were seen as a formal/legal means of achieving monetary stability, and market mechanisms would have been circumvented by the adoption of these laws.

In New England, at a time when non-enforcement of redemption laws was widespread elsewhere, the Suffolk system and the new compulsory specie reserve laws that were enacted

there kept the currency flowing through the clearinghouse operations of the Suffolk, and later notes of the Bank of Mutual Redemption (1858) and the Boston Clearing-house (1856) were accepted throughout the United States.

The turnover of operations to the Bank of Mutual Redemption and the Boston Clearing-house represented something of a defeat for the Suffolk and a triumph for the country banks, who had always resented the constraints imposed by the Suffolk. Trivoli attributes the loss of power over the country banks to the Suffolk's intractable attitude toward them in its later days.⁴¹ One aspect of the country bank notes and the uprising of the country banks against the Suffolk which appears worthy of future consideration is the possibility that the country notes eventually attained a public goods aspect due to long association with the Suffolk.⁴² The reports of banks' conditions in New England in 1861 may therefore reflect remaining influences of the Suffolk and/or the policies of the newly empowered institutions. These questions remain largely unexplored in the present work.

The discussion of the role of the Suffolk Bank in New England so far has revealed that the Suffolk did fulfill a unique role within the New England monetary scene, and the question of how the Suffolk gained and maintained its position within this system has been raised in this context.

In fact, the issue of whether or not the Suffolk ought to enjoy such a position was raised at the outset by the country banks themselves. Understandably, the existence of the Suffolk would not have irritated managers of the country banks to such a great degree, had it not been for the fact that the Suffolk bank severely limited the ability of those banks to issue their own notes. The criticisms and perceived harms generated by the Suffolk were perceived primarily to attach to reduced profits from note issues. This is particularly true after 1825, when par redemption was initiated. Trivoli reports that country banks which had been making loans in Boston and buying back their own notes at discount from brokers were forced to abandon the practice. In addition, calling in the notes for redemption in specie at the country bank made it impossible for the bank to successfully overissue. When the Suffolk finally lost ground to the country banks in the late 1850's and 1860's, the country banks breathed a sigh of great relief; restrictions on note expansion were tremendously eased. The power of the Suffolk Bank arose in a competitive environment, rather than through a special legislative arrangement. It dominated clearing operations in New England because it outcompeted first the redemption agents and brokers, and then the other banks in Boston in this area. The intent of the Suffolk and of the Association in the early 1820's was clearly to suppress the rival country

banks. Specifically, Boston banks felt it clearly in their interest to eliminate, so far as possible, the circulation of country notes in Boston at all. In this respect, the operation of the Suffolk was a total failure. Country notes circulated far more freely in Boston after the Suffolk's system was underway than it had before. Paradoxically, the country banks found it harder to issue notes than they had before. While the circulation of the country notes in Boston increased over the century, the proportion of “bad” (irredeemable) notes and discounted notes fell dramatically. Thus the two effects are complementary. As the cost of accepting and circulating the country notes began to be shifted back onto the issuing bank and away from the public, the proportion of good notes to total note issues rose. This is clearly seen by the reduction in discounts on the notes, and secondarily by the reduction in overall bank failures in New England on account of the Suffolk (especially by comparison to non-New England States). With the rising reputation of the country banks' notes, the acceptability of country bank notes also rose. Recent studies of the period have noted this rise in the circulation of country notes, and subsequently argued that the Suffolk cannot have restrained (in central bank fashion) note issues during its operation.⁴³ In fact, the Suffolk was very successful in restraining note issue—of bad

country notes. In so doing, and through its own clearing and redemption operations, it would naturally have stimulated the widespread acceptance and circulation of good country bank notes. This is precisely what occurred. Legal support for the Suffolk system was limited.

...the only legal support for it came in 1843 after the system was well established; this legislation allowed banks to pay out only their own bank notes, thereby forcing clearing through the Suffolk System. (Trivoli, p. 24)

The claim that a legal monopoly existed in the Suffolk is largely unfounded. Instead, the Suffolk gained the rare status of a competitive monopolist (at least prior to 1843)—one who attains the unique status through competition, and who is likewise subject to lose it the same way. The fact that no bank or association of banks was able to successfully compete for provision of the same services points out the consumer benefits and preferences associated with its continued dominance in the field. Furthermore, when the larger question of which monetary system produced better results is addressed, the question of whether one or several Suffolk-type banks in New England should have existed loses some significance. If the argument can plausibly be made that costs to banks and to consumers in New England would have been lower with multiple clearing and redemption operations, then we can conclude that perhaps the Suffolk system as it existed was not the most efficient operation it could possibly be. It is a question which

bears further investigation. The fact that no clearing service was able to outcompete the Suffolk when it did face challenges suggests that the Suffolk's operations, onerous as country banks viewed them, generated a safety and security which noteholders valued. The certainty which the Suffolk's operations lent to banks operating under its strictures was apparently preferred (by banks as well as customers) to the uncertainties of an alternative and unknown operation. And even though country banks railed at the Suffolk's requirements, they benefited in the increased acceptance of their notes, a fact which was not lost on the country banks' managers. A retreat from the Suffolk system presented greater anticipation of loss than of benefit. This inquiry does not attempt to fully treat the alternatives which might have arisen instead of the Suffolk system, instead concentrating on comparative actual operation of the monetary system of New York and that of New England. This questions whether a monetary system regulated by market constraints operates better in certain ways than one created by legislative design. For this reason we are more concerned with a comparison of more laissez-faire monetary systems, such as New England's, with less laissez-faire systems, such as New York's free banking system. The relative success of New England vs. the relatively poor performance of banks in New York remains the focus of

discussion within this particular study.

Bank Conditions in the Later Period

Monetary statistics on deposits, circulation, and specie for the period between 1850 and 1863 are somewhat more complete than those available for the middle period. A comparative look at the decade from 1850 to 1860 reveals the growth of banking facilities and banking power/capita.

	Banking power	Banking power/capita
1850	\$114 mil.	\$41.89
1860	\$209 mil.	\$66.89

Disaggregated figures are available for 1861, at which time we find the measure of deposits in New England standing at \$41,900,000.00, circulation at \$31,100,000.00, and specie at \$10,400,000.00. The ratio of specie to notes is calculated at 31.4%, and that of specie to notes plus deposits at 13.8%. Massachusetts banks alone comprise 83% of the total deposits, 59% of the total circulation, and 85% of the specie on hand in the New England region, underlining the dominance of Boston in New England commerce and banking. On the whole, reserve ratios in Massachusetts were higher than those found elsewhere in New England: 45.1% for specie to notes, and 16.4% for specie to notes + deposits. Reports from New England banks outside of Massachusetts tend, therefore, to understate the strength of the New England region as a whole.⁴⁴

Only part of the significance of these statistics is contained in the numbers themselves. When compared to the New York free banking system, New England's reserve ratios appear dangerously low. In reality, as we will see in the case of New York, these reserves were adequate to sustain a system of contemporaneous redeemability in New England which New York was unable to match throughout its entire free banking experience. The critical difference seems to lie in the treatment of reserves in the two systems. In New York, reserves were not freely available to maintain note redemption, being tied up in bond collateral requirements. On a day to day basis, the New York banks appear to have been much less liquid than New England banks, for whom bond collateral requirements did not apply. Thus in the critical liquidity sense, New England offered greater noteholder security in spite of its lower reserve ratios. In addition, the ability of New England banks to economize on the commodity reserve represents a savings in the cost of providing banking services when compared to New York. Thus another consequence of the operation of the Suffolk was to free up resources for alternative productive uses. It can surely be argued that the availability of these resources had a positive effect on commerce and industry in the region. The bond collateral requirement in New York, on the other hand, generated real opportunity costs which did not

exist in New England. Therefore it appears that the Suffolk clearinghouse generated an efficient as well as a safe banking system in New England.

In 1857 a general crisis, fueled by poor crops and a fear of war in Europe, drove prices of stocks, and particularly of the huge volume of railroad stock, down precipitously. The crisis was transmitted to banks through their subscription (principally) in railroad bonds. Even banks which had no significant investment in the bonds eventually were affected, since they had dealings with other banks which had. Notes of many eastern banks had gained circulation in the west due to their high quality. When bond prices collapsed, the notes were sent home for redemption. Banks in New York suspended redemption, forcing Boston banks to suspend in October of 1857. Banks generally resumed specie payments in December, though many New England banks effectively resumed earlier (as the case of the Hartford Bank reveals). According to Hepburn:

The tremendous increase in railway construction, especially in the Central and Western states, was the most important factor in bringing about the stringency of 1854 and finally the crisis of 1857. In 1850 there were 9,021 miles of railway in operation;...in 1857 the number was 24,503; this represented an increase of railway securities of nearly \$600,000,000, more than half of which was issued in 1854-57. (p. 169)

The position of New England and Massachusetts banks relative to other regions of the country in 1861 can be seen in the following table:

Table 5

(\$ millions)

States	Deposits	Circulation	Specie	(Specie/ Notes <i>ratio</i>)	(Specie/Notes + Deposits <i>ratio</i>)
N.E.	41.9	33.1	10.4	31.4	13.8
Mass.	34.0	19.5	8.8	45.1	16.4
Mid.	152.0	53.4	39.0	73.0	18.9
N.Y.	114.8	28.2	26.4	93.6	27.2
South.	42.5	61.9	30.2	48.8	29.0
Louisiana	17.1	6.9	13.7	198.5	57.1
West.	15.8	38.2	9.6	25.0	17.7
U.S.	257.2	202.0	87.7	43.8	19.2
<u>Totals</u>			<u>averages</u>		

(Hepburn, p. 173)

Sumner's account of the plight of the banks concurs with this picture:

The suspension was preceded by a desperate struggle between the banks themselves, and the distrust and fear of currency was more apparent among them than with the public generally. The banks began a savage contraction... the banks put all their pressure on merchants because they could not recall those to the railroads, (in Hepburn, p. 171)

The experience of the Hartford Bank is revealing and indicative of conditions in New England in 1857. When New York city banks suspended in October of 1857, Boston and other New England banks were unable to withstand the specie demands. Redemption resumed in December, but between the first of July, 1857, and the first of January, 1858, circulation of Connecticut banks was reduced to less than 40% of its original volume—from \$10,411,000 to \$4,130,265. The circulation of the Hartford Bank itself fell from \$705,022.06 to \$248,727.06—35% of its former level—and specie holdings rose from \$76,427.08 to \$99,743.82—a gain

of 23%.

The ratio of specie to notes at the Hartford had been 10.8% when the crisis began to threaten the bank, and rose to 40% by the time the crisis was over. Moreover, the bank was able to pay every piece of paper it had held at the outset of the crisis. The deliberate and early effort on the part of the bank (prior to suspension) led the managers to claim that by the time the suspension was lifted and redemption resumed, that redemption at the Hartford had practically resumed already.⁴⁵ The stockholders were forced to accept a reduction in the dividend of the bank that December from five to four per cent, and the five per cent dividend was resumed the following June.

The records of the Bank of Hartford also indicate an important change in attitude in New England toward government and toward government debt, particularly treasury note subscriptions, as the Civil War approached. For example, on April 26th, 1858, "the directors voted to subscribe for \$50,000 of treasury notes the issue proposed by the United States, thus manifesting in the initial stages of the war the spirit of devotion to the cause of the Union, which continued to animate them to the end."⁴⁶

This change in attitude and behavior is reflected in later events in the region. The effects of this change were evidenced, among other ways, in newly arising liquidity

problems—for the first time since 1811, the viability of the region's monetary system was seriously in doubt.

A series of events contributed to this circumstance. By late 1855, the balance of power in New England banking had swung away from the Suffolk Bank. Renewed efforts by a group of country bankers to wrest clearinghouse operations away from the Suffolk finally succeeded in 1855. The Bank of Mutual Redemption was created by and in the interests of country banks, many of whom had been mildly to extremely unhappy under the stewardship of the Suffolk. The Bank of Mutual Redemption aimed to continue the basic redemption function of the Suffolk, but under much less stringent constraints. A particular irritant to the country banks had been the permanent (non-interest-bearing) deposit, and this feature was drastically reduced and even eliminated in many cases.⁴⁷ As a consequence of these changes, country banks had far less incentive to restrain issues. This may have led the country banks to conclude that the actual restraints imposed by the Suffolk were no longer necessary in view of the widespread confidence in and acceptability of the notes from past association with that clearinghouse. In this case, the banks would be confident that their notes would continue to circulate at par based on past reputation and performance. Disassociation certainly would have reduced the cost of issuing notes to the country banks if

that scenario was correct.

In addition, New England banks had by now acquired large subscriptions to government debt in the form of treasury notes. This occurrence greatly damaged the ability of the Suffolk and therefore of the system banks to maintain contemporaneous redemption, placing incredible redemption demands on the system. The disintegration of the New England regional banking system is clearly linked to the introduction of large volumes of discretionary government debt into the system. Acceptance of this debt as a form of reserves, and the requirement (essentially) that both the banks' notes backed by the reserves and the part of the reserves comprising the debt, be redeemable in specie, proved the undoing of the sound banking practices initiated by the Suffolk Bank. As we see with the Bank of Mutual Redemption, and as we will clearly see in New York, such a pyramiding of money creation on the existing reserve base is bound to be destabilizing.

Events taking place within the Bank of Mutual Redemption suggest that once it supplanted the Suffolk in redemption operations, the New England regional banking system began to deteriorate. The Bank of Mutual Redemption soon encountered liquidity problems. In January of 1862 it refused to pay its balances at the clearinghouse in specie, offering treasury demand notes instead. The payment was refused. Again, in March, the demand notes were refused for

settlement of balances. The country banks had broken the monolithic hold of the Suffolk bank with the Bank of Mutual Redemption, and with the (1858) Clearinghouse.

...noting the seriousness of the dispute between the Suffolk Bank and the Bank of Mutual Redemption, 24 Boston banks sent all New England banks a circular in which they pointed out the need for an adequate system of redemption to protect the banks and the public against depreciated currency. The circular expressed grave doubt that the Bank of Mutual Redemption would live up to expectations since “it linked borrowers and lenders between whom a certain antagonism was deemed necessary.”⁴⁸

Admittedly, the introduction of the legal tender notes on February 25, 1862, had made the status of settlement payments somewhat uncertain. Demand notes were not specifically payable in coin but were regarded as “coin notes,” since no other legal tender existed.”⁴⁹ The question was soon a moot point, however, as the changeover to a national system was already underway.

Summary

In conclusion, changing conditions in New England banking at the opening of the 1860's cannot easily be separated into causes stemming from the Suffolk's loss of power vs. the rise of national legal tender. What is clear is that for most of the 1811-1863 period, New England enjoyed the most stable monetary system in the country, including those states organized under free banking principles. A large part of this success stems directly

from (1) the discipline of self-interested, competitive market forces generated by the emergence of the Suffolk system, and an avoidance, for whatever reason, of significant subscriptions to government debt; this debt provided a means of inflating note issue through new loans for banks outside New England, and a ready market for government bonds. (2) Attitudes in New England may have contributed to the region's monetary stability, especially in the area of government loans and debt issues. Though no one factor appears to offer an entirely sufficient explanation of the course of events in New England, together these two form a critical mass of circumstances which motivated New England's extraordinary performance.

The experience of New England demonstrates the possibility of a self-regulating, competitive monetary system. Due to its market-guided behavior, American banking experiences in New England can claim a more 'laissez-faire' approach (more akin to the Scottish free banking experience) than can concurrent free banking experiments conducted elsewhere in the U.S. The contrasts between New England's laissez-faire, and New York's free banking systems will be examined in the following chapter. In this way, we hope to better evaluate the benefits and drawbacks of a more spontaneous, market-oriented monetary order vs. the constructivist/institutional approach typical of American free banking.

Notes to Chapter 4

1. See, for example, the substantial agreement in Fenstermaker and Filer (February, 1986) and Fenstermaker, Filer, and Herren (June, 1984), with older sources such as Hepburn (1915), and Dewey (1920), and even Hildreth (1837), Gilbert (1837), and Sumner (1874).
2. See Trivoli (1979), and Redlich (1974) Chapter IV.
3. Fenstermaker, Filer, and Herren (1986).
4. For example, the Connecticut Courant (the early Hartford Courant) included this feature in its editions from 1810 onward through the period studied. the Bank Note tables appeared regularly every other week—the paper in its early days was published weekly as a four to five page digest of news from the local area, and also as a source of national and international news. The earliest editions contain verbatim reprints of important Congressional proceedings as well as editorials detailing the likely effect of the legislative debates on commerce and trade.
5. See Turner (1958), Chapter III (New England), pp. 39-92.
6. See the Introduction to this work for a discussion of the legal/institutional conditions of the period.
7. Fenstermaker, Filer, and Herren (1984), pp. 444-445.
8. Fenstermaker, Filer, and Herren (1984), pp. 444-448.
9. These are unspecified, and indeed it is doubtful that they were exactly specified even in the bank condition reports of the period.

10. According to Fenstermaker, Filer, and Herren (1984), from which the descriptions of items in bank balance sheets and condition reports in this section are cited, assets generally included both stock and debentures, but both were called stock in the reports (p. 444).

11. New England banks apparently included specie deposits destined for note redemption, but held elsewhere, as specie on hand. Therefore, the entire sum might not be physically stored in the bank's vault. Redemption agents and other banks might warehouse the specie to redeem notes away from the bank's premises, as occurred with country bank customers doing business in Boston.

12. Again, these are unspecified, and were likely not specified in the original reports by the banks.

13. Fenstermaaker, Filer, and Herren (1984), p. 445.

14. Manufacturing histories are particularly interesting, even though they do not focus primarily on the questions at hand in this study. See, for example, Bishop (1864) Vol. II, or Clark (1929) Vol. 2. In addition, the Connecticut Courant (1810-1848) has been helpful for this study, as well as the individual histories of the major banks of the area (the Hartford Bank, the New Haven Bank), and the more recent research done on the history and development of the Suffolk Bank and Suffolk system by Trivoli (1979). Many others are not mentioned here. General histories such as Turner (1958) are also helpful.

15. These statistics gathered from Hepburn (1915).

16. The discussions in Hepburn turn to the banking power measure as a way of getting beyond the question of sheer numbers of banks. He is attempting to provide a comparative measure of the effectiveness of banking services, not only over time but across regions of the United States as well. See the tables that have been reproduced in this chapter.

17. Hepburn is the source for numbers of banks—my calculation using those reported figures.

18. Fenstermaker, Filer, and Herren (1984).

19. Trivoli (1979).

20. We note that the numbers converge and almost agree entirely for the later dates, while the earlier ones are more questionable as to accuracy. We therefore consider

that the agreement on statistics for the later dates is owed to better record keeping over time, as well as more complete available information (some early records were destroyed by fire in the Treasury building), and more reliable estimates of missing data.

21. My calculation based on data compiled from two different sources — Hepburn and Dewey.

22. See Hepburn, pp. 83-84, and Hepburn on Sumner, pp. 165-166.

23. All data are from Fenstermaker, Filer, and Herren (1984), except ratios in final column—calculation mine.

24. Wildcat banking is typically associated with extremely low reserve ratios—in the limit, they are zero (see Theory chapter, this study). Paradoxically, New England consistently had very low reserve ratios and very little bank failure, suspension, or wildcatting. This suggests that factors other than reserve ratios played a major role in reducing the incentive to wildcat. It is the purpose of this chapter to demonstrate that the market created an institutional structure conducive to safety in a competitive monies regime.

25. Number of banks reported by van Fensterraaker, Filer, and Herren (1984), other calculation mine.

26. See Gilbert (1837), Dewey (1920), or Selgin (1985) for further elucidation on the maximum allowable capital, and especially Selgin on the real bills/needs of trade arguments (though not treated with bank capitalization explicitly in mind).

27. The results of the treasury issue are discussed widely in the literature of the period as well as the more modern research. See, for example, any of the following on treasury notes: Timberlake (1984), Hildreth (1837), Turner (1958), Gilbert (1837), or Dewey (1920). One can also find suggestions of the effects of the debt issue in Rockoff (1975), Trivoli (1979), and Redlich (1974).

28. The main provisions attached to the notes, as well as the quantities and timing by which they were issued, are discussed in Dewey (1920), esp. pp. 128-138.

29. Hildreth (1837), p. 61.

30. The estimates are by Knox from the Finance Report of 1876, reported by Hepburn (1915), p. 161.

31. The authors' main interest was whether any of the early quasi-central banks (the First and Second United States banks and the Suffolk Bank) had a significant impact on restricting the money supply. They were not especially interested in the question of whether the demand for country bank notes was enhanced by the operation of the Suffolk, and what that meant for the New England regional banking system, as we are in this study.

32. Trivoli and Redlich emphasize this point in particular.

33. See Trivoli (1979), p. 15.

3A. The Connecticut Courant, for example, published these tables from 1810 onward.

35. We have calculated the averages from the raw figures. Since there was a pronounced fear of banks having “too large” a capital, it is to note the limit on authorized capital. This limit was declining between 1811 and 1836 from \$363 million to \$240 million. The average authorized capital of \$253 million in 1837 shows a slight rise for that year. The numbers (and therefore the average figures) may also be affected by the quality of the statistics available. Therefore, the reader is advised that attention to trends in this area may be more informative than attention to single year figures.

36. This measure has been explained as a measure of the adequacy of banking facilities for the population, rather than as a welfare measure of any other type.

37. Trivoli takes his discussion from Hepburn on this matter. See Trivoli (1979), p. 28.

38. Hepburn (1915), p. 157.

39. Hepburn (1915), p. 157.

40. See P.H. Woodward (1892), The Hartford Bank: 1792-1892, p. 143.

41. Trivoli discusses this situation in brief on pp. 23-28.

42. This idea is not developed at all in this study. It is clear, however, that while the institution of the Suffolk afforded the country notes with wider acceptability than they otherwise would have had in the early years of its operation, that the claims of the country banks may have been somewhat legitimate—they felt that the severity of the restrictions in the later years was unnecessary. Once the public came to have confidence in the notes, this may have been true. Nevertheless, once the Suffolk lost control of the clearinghouse operation to the Bank of Mutual Redemption and the restrictions were relaxed, the country banks faced less incentive to maintain that reputation. A deterioration of the regional system, concomitant with liquidity crises at the Bank of Mutual Redemption, occurred. Our conclusion is that the market-based mechanism for maintaining safety worked precisely because it was an ongoing mechanism. It provided the proper incentives at the proper time. The results it achieved understandably could not be sustained without the process generating those incentives, and so the post-Suffolk system broke down. Trivoli discusses the implications of the Suffolk's refusal to honor notes of banks which chose to do business with its competitor, the Bank of Mutual Redemption. Trivoli (pp. 25-28) speculates that the Suffolk essentially made a poor strategic decision by acting as though it did not have to compete for clearinghouse business any longer. This attitude on the part of the Suffolk apparently encouraged banks to take their business to the Suffolk's competitor for note clearing, and the power of the Suffolk fell on account of it.

See also Mullineaux, Southern Economic Journal, April 1987 (and July 1988 citation).

43. See Fenstermaker, Filer, and Herren (1984).

44. Reserve ratios were lower, plus each individual state (other than Massachusetts) accounts for a smaller percentage of total banking facilities in the region than do the Massachusetts banks.

45. Woodward (1892), p. 157.

46. Woodward (1892), p. 157.

47. Trivoli, pp. 23-28.

48. Trivoli, p. 24.

49. See Dewey (1920) on legal tender and treasury notes.

Conclusion

Despite the volume of work that has been gathered and presented here as a reinterpretation of the nineteenth century American free banking experience, there are many issues which could not be considered in a work of this scope. Among these important issues are an in depth exploration of business cycles and their relationship to monetary movements, a more thorough analysis of the political environment of the free banking period, and a theory of free banking which examines the demand as well as the supply side of the issue in a modern-day as well as a historical context. Fortunately, many of these questions are being pursued in the work of economists such as George Selgin, Lawrence White, Richard Timberlake, and others interested in a laissez-faire direction for monetary reform.

In presenting a reinterpretation of the American free banking experience, this work has attempted to go beyond the scope of the existing literature, while building on a foundation of ideas advanced by historical and modern theorists alike. Nineteenth century writers found many reasons to favor a laissez-faire approach to banking, yet

nowhere in the historical literature do we find a consistent laissez-faire view of money (see Appendix A). No one historical figure among the prominent advocates of laissez-faire as a general approach to business could see that laissez-faire in bank entry ought to be linked with a distrust of government, particularly a distrust of putting all free bank collateral in the form of government debt or government-subsidized bonds (e.g., railroads, canals). Of these, Leggett and Hildreth appear to come closest, but both deferred to the free banking bond collateral scheme on the basis of concerns for bank noteholders. As a result, neither could get beyond freedom of entry to see how important flexibility in asset portfolios would be to that very safety issue. Therefore two of the most outspoken advocates of laissez-faire, Hildreth and Leggett, did not hold laissez-faire views on the issue of bank assets. McVickar appears to have believed in spontaneous market orders, but like Leggett and Hildreth, was willing to add a dash of state intervention, just in case. He strongly advocated the bond collateral system, and was influential in the development of the New York law. The other historical figures were outspoken on the issue for different reasons: Raguet wanted noteholder safety and saw laissez-faire as a means to that end; Carey saw it as a means to general economic growth. Unfortunately, Like their contemporaries, both acquiesced to the perceived safety of a rigidly

designed bond collateral system, embodied in free banking (formal law).

Modern interpretations of the free banking period have examined the “success” of New York state and determined that it was superior free banking legislation that saved New York from the wildcats (Rockoff); determined that “exogenous shocks” caused instability during the free banking period and are likely causes of its general failure (Rolnick and Weber). In effect these studies concur in the idea that “adequate” regulation, not freedom of entry or laissez-faire, was the chief source of stability during the period. Dissenting from this view are economists White, and Selgin, [and others since this writing] and this author as well.

The arguments advanced here reject the popular notion that New York was an example of either laissez-faire or unregulated banking. In Chapter 3 evidence is presented which indicates that New York was a relatively heavily regulated banking state during the free banking period, and that it was not particularly successful in preventing suspension of redemption and less-than-par circulation of notes, among other problems. By comparison, the evidence in Chapter 4 indicates that the New England banking region, which had been created as a result of the operations of the Suffolk clearinghouses system, suffered far less of the same ills with regard to the currency of its banks. Moreover, the Suffolk is presented as an example of a laissez-faire system

working well. Thus the two chapters have tried to disentangle the notion that free banking and laissez-faire banking were synonymous. Because New England's system was constrained by market forces rather than by legal restrictions, there seems to be no question of the appropriateness of the laissez-faire characterization of banking in the region.

Finally, this study advances beyond previous studies of the period because it attempts to present a picture of the banking environment which properly identifies banking in New York as an experiment in regulated banking which was not particularly successful, and not even strictly comparable to its Scottish free banking namesake; recognizes the essentially laissez-faire character of banking in New England; and offers an explanation of the relative performance of the two regions based upon the degree to which government debt (both state and federal) was incorporated into the structure of the banking industry. In New York state debt was legally incorporated into the formation of free banks, resulting in portfolio rigidity and bank instability. New York banks also multiplied note issue upon Treasury note reserves, resulting in further liquidity problems. In New England neither of these conditions were present, and as the history reveals, New England maintained par circulation and full-bodied redemption far more successfully than New York. New England states (Suffolk

System states) achieved this stability despite relatively low reserve ratios and other measures which have traditionally been cited as measures of banking industry safety. Although none of the historical proponents of open entry recognized it, and only a handful of modern economists have thought through the implications of a full-blown laissez-faire monetary system, the implications of this study reach into discussions which should properly include the business cycle, the destabilizing effect of regulation which links the solvency of banks with discretionary government debt, and the inability of regulation to construct a monetary system which is categorically superior to a market-directed system. The desirable properties of safety, flexibility, and self-regulating incentives have been demonstrated historically under laissez-faire. There is no reason why the same properties should not be available as a result of market processes today. But our attempts to deregulate modern banking must take heed of the historical lessons: government regulation, monopoly note issue, government debt linkages to the banking system, and government-imposed safety schemes have been the route to banking instability in the past. The success of laissez-faire banking critically depends upon a market environment and market-imposed constraints. That this is as true today as it was in the nineteenth century there can be no doubt.

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Appendix A: Selected Historical Discussions

Proponents of Laissez-Faire Banking

About 1820 the consideration of banking became more philosophical. Hitherto nearly all the writings had been distinctly occasional,...But our problem was different: we were too new at the business of banking to develop sound theories at first hand; our experience had been too completely with banking in a pathological state...But first there must be some notion of the differences between normal and abnormal states. Before we could discuss intelligently the ills of our own banking system, we had to have some conception of how a properly adjusted system functions. This our own experience had not yet given us, and the quickest way to acquire it was by digesting what the English already knew. (Miller, pp. 4-5)

In this section we summarize briefly the historical arguments advanced by various writers in support of American banking reform. The development of reform proposals, the important issues in the discussions, the participants, and the British and mercantilist influences in the discussions, all form a backdrop against which reforms advanced. The participants in the debates were concerned with all or most of a variety of related issues: safety, entry, small notes, the needs of trade, elasticity of the currency, adequate specie reserves, overissue, bank panic, and the trade cycle. Appendix A will identify the relationship between the

authors' views on these issues and the banking reforms which they proposed. Keeping the evidence from banking experiences in New York and New England in mind, we can interpret the theories and banking reforms described in this section as a mutual search (by reformers and theorists alike) for a safe and stable monetary system.

It is difficult to write an account of the banking debates which took place in nineteenth century America based upon the discussants' inclinations toward a laissez-faire or a regulated banking system. The reason for the difficulty is that rarely if ever are the participants' views on banking entirely consistent with a single viewpoint. When, therefore, we separate the laissez-faire influences and arguments from the proregulation ones within a given writer's thoughts, we can more accurately determine which ones most strongly influenced their position on banking reform, and ultimately those banking institutions. It can be stated at the outset, however, that all of the participants' views correspond fairly well on at least two issues. All believed (1) that an inelastic currency (as implied in any bond-backed-banknote system) was desirable and superior to the existing state of affairs because it minimized the possibility of fraud, and (2) all held some version of the needs of trade doctrine when it came to the supply of banknotes in a competitive system.

Problems and Proposals: Participants in the Debates

The issue of entry into the industry is one of two major divisions of emphasis in the American banking debates, the other significant division being noteholder safety. Among the major writers who embraced freedom of entry we count John McVickar, William Leggett, Henry C. Carey, Richard Hildreth, and Condy Raguet. Their thoughts are considered here. Most details of the legal progression of American free banking are discussed only to illuminate various theoretical developments. In the political arena, supporters of the open entry plan include Edward Curtis, William Marcy, Eleazar Lord, Samuel Young, Guilian Verplanck, and John Canfield Spencer. The views that they held were influenced by laissez-faire and free banking theories that evolved throughout the period. In spite of their laissez-faire views on entry, however, not one embraced laissez-faire in its entirety. It is therefore not uncommon to see that on the issue of entry, laissez-faire principles dominate, while regulation is strongly advocated when the discussion turns to questions of noteholder safety.

The bond-collateral requirement, though obviously a retreat from laissez-faire, was to be a popular feature of proposals by writers professing laissez-faire principles. It gave them a concrete answer to the fear of fraudulent banknotes, allowing them to argue more persuasively that the other aspects of banking (particularly entry) could be deregulated without danger.” (Selgin and White, 1986, p. 7)

McVickar

John McVickar, one of the earliest writers in the American banking scene to express these two ideas together, anonymously authored a pamphlet in 1827 entitled: “Hints on Banking in a Letter to a Gentleman in Albany.” In the pamphlet he made the first proposal of a free banking system for New York state.¹ Through a series of analogies with nature, he describes credit as one of the “natural processes which, like all the other movements of Nature, are clear, simple, and harmonious,” and promotes the view that banking is likewise “one of the natural and obvious provisions of trade;...”² To this end, McVickar emphasizes the need to allow instinct, in this case self interest, to regulate bank entry. As Fritz Redlich notes in Men and Ideas; the Molding of American Banking:

McVickar's “fundamental proposition” is that evils flow from needless and unwise regulation. Let law then secure the integrity of contracts [which is imperiled by the fluctuations in the value of money], and credit will take care of itself; or in other words, credit, like every other business left to itself, will regulate itself, (p. 192)

From an “organic economics” perspective, McVickar's thoughts held widespread appeal, though he did not advocate a fully laissez-faire banking system. Instead, McVickar introduced a strand of thinking which had profoundly influenced the British monetary system--the idea of government-bond-backed bank notes. The preregulation views, which form half of his banking reform proposal, can be

traced to persistent strains of mercantilist thought on the role of bank capital. According to Sir James Steuart and others in the mercantilist tradition, capital served two purposes: as collateral security for bank notes, and to instill public confidence in the bank. Banks must accordingly never lend their capital in this view. In order to prevent a bank from lending its capital, mercantilist thought stated that the capital ought to be invested in such a way that it was essentially inaccessible to bank managers. This gives one reason for the practice of bank capital vested almost entirely in government bonds. The bonds represented an ultimate security for noteholders, and furthermore, they served to arouse in the public the confidence that bank managers sought. A second reason for the investment scheme rests on the idea that banks and government received reciprocal benefits under this system:

This line, as far as America is concerned, started from that feature of the Bank of England's charter which gave its "proprietors" banking privileges in consideration of their advancing funds toward the carrying on of the war with France. Or, in other words, banking privileges were given because the recipients thereof invested in government obligations, the capital which they raised for the projected Bank of England. Such investment implied that the bank had no liquid capital [emphasis mine] for its banking business proper, but in line with the theory, then developing and just mentioned, capital was not necessary for banking. (Redlich, pp. 192-3)

The emphasis on the exclusive use of capital for illiquid ultimate security, placed in long term investments to

protect the bank's creditors, became the basis of the government-bond-backed note in the United States. By shifting the emphasis to a pure source of confidence in the bank, American country banks argued that capital was not necessary at all, as long as confidence in the bank's managers did not fail. This came to be seen by American banks (particularly by American country banks) as a reason to dispense with capital altogether. It is interesting to note, therefore, that one of the most respected banking schemes, the government-bond-backed note, as well as the zero-capital “wildcat” bank, found theoretical justification for their operating methods in the same source—the mercantilist view of the role of bank capital. For better or for worse, the Americans borrowed piecemeal what was appealing from the British. To McVickar, the bond-backed note meant the end of the need for a bank charter, in other words, open entry to all who were willing to comply with the state's collateral laws. It is clear from his statements at the time that he felt that noteholder safety would be a natural by-product of the system.

On the question of small notes, McVickar supported the New York State banking reform law establishing free banking and revealed that he favored notes of no smaller denomination than \$5.00. He is therefore considered an opponent of small notes, and explicitly favored the legislature as “guardians of the coin” of the country.

The final version of the New York State law reflects both a needs-of-trade and anti-small-bills position. The act made notes or bills of less than one thousand dollars illegal for purposes of circulation and redemption.

Safety under free banking would presumably be guaranteed by the built-in safeguards against fraud and bank managers self-interest. McVickar strongly believed in the self-regulating properties of a banking system because "[e]rror and fraud in banking would be limited within the narrowest possible bounds, as soon as credit is put under the sharp-sighted control of self-interest."³

Leggett

Leggett was familiar with the British monetary controversies and with British free banking advocates. He wrote extensively on topics in political economy, applying the principles of equal rights and utilitarianism to his analyses. These principles were apparently the guiding force in his thoughts on many important issues of the day, including the American free banking debates.⁴ Politically, Leggett was a Jacksonian Democrat, and therefore held that "[T]he fundamental principle of all governments is the protection of person and property from domestic and foreign enemies;" Further,

Whenever a Government assumes the power of discriminating between the different classes of the community, it becomes, in effect, the arbiter of their prosperity,...It then becomes the great regulator of the profits of every species of industry, and reduces men from a dependence on their own exertions, to a dependence on the caprices of their Government. Governments possess no delegated right to tamper with individual industry a hair's-breadth beyond what is essential to protect the rights of person and property.⁵

In banking, these ideas led Leggett to adopt a laissez-faire approach to note issue which is not necessarily based upon a moral commitment to the principles of laissez-faire. In reading Leggett's editorials on banking and the role of the state, the utilitarian aspect of his thinking surfaces in his conviction that a complete separation of banking from the state yields more desirable results than does state-controlled banking. It is probably on utilitarian grounds that Leggett adopts the "needs of trade" doctrine, for example. The optimal supply of notes issued by the individual bank, according to Leggett, was determined by the "needs of trade." Regulation of the nation's currency, therefore, required no intervention by the government, especially in the form of a Bank of the United States.

It is clear from Leggett's editorial writings that he understood the process of adverse clearing, and that self interest and competition induced banks to avoid overissue for this reason. The general process that Leggett described produced a self-regulating monetary system without the need for central bank intervention.⁶ Moreover, he recognized

the destabilizing role that central bank issues could produce in the economy:

For the two or three years preceding the extensive and heavy calamities of 1819, the United States Bank, instead of regulating the currency, poured out its issues at such a lavish rate that trade and speculation were excited in a preternatural manner. But the inevitable consequence of overissues did not fail to happen in that case...A depreciation of its credit was one of the consequences which had flowed from this state of things, the notes of the United States Bank—the boasted institution which claims to have regulated the currency of this country--fell ten per cent, below the par value of silver.⁷

In the Bank's attempt to meet its liquidity demands, massive loan contractions followed in major cities, causing distress in those cities and “scattering ruin and dismay throughout the Union.¹¹

Speculation in land and other ventures based on easy credit collapsed.⁸ A repetition of the same events, with their disastrous consequences, is described by Leggett in 1825 and in 1830.⁹

Leggett opposed the recharter of the Second Bank partly on the utilitarian grounds — that the Bank had simply failed to perform as promised in regulating the currency and in stabilizing the banking system. His most impassioned opposition to the Bank, however, rested on the consequences invited by the Bank's monopoly power--he states that the privileged position of the Bank allowed it to act in a mischievous, coercive, destabilizing, wicked, defiant, and immoral manner. In closing his invective against the Bank Leggett states: “This is the institution which now comes forward for

recharter. If the people grant it they will deserve to wear its chains!”¹⁰

Leggett viewed competition and self interest as the motivating forces in noteholder security, but nevertheless favored a bond collateral system as a measure of banking reform. In his view, charters did more harm than good because charters in effect allowed the banks to overissue “by reason of the false character which their exclusive privileges give to the notes they issue.”¹¹ The “false character” refers to the false sense of security which the public places in bank notes simply because they are issued by a chartered bank. Like McVickar, Leggett opposed the issue of small notes, although he viewed this as a transitional step along the way from a chartered to an open-entry system.

Interestingly, Leggett explicitly considers the effects of open entry on trade, and develops a monetary theory of the trade cycle. The overexpansion of bank notes through credit, the rise of prices, specie outflow, and inevitable reversal of the process are all considered in his writings. What appears particularly important is his understanding of the process of malinvestment (and liquidation) over the course of the cycle.¹²

Overall, Leggett appears in the historical debates as an outspoken and well-reasoned critic of the state's role in

banking. While much of his argument appears to be based upon a concern for safety rather than a commitment to free banking in principle, the arguments to free banking from the state nevertheless appeal to a sense of the immorality and impudence which inevitably results from state-controlled banking. As such, Leggett is one of the most articulate advocates of free banking of the nineteenth century. It is also clear that the evolution of banking reforms in New York state owe much to his argumentative abilities.

Raguet

Raguet was such a strong supporter of the New York state banking reform laws of 1838 that he reprinted the entire act in A Treatise on Currency and Banking. In this 1839 work, he discusses the superiority of the reform over the existing system in terms of noteholder safety, strict convertibility, liability, and trade cycles, among other issues. Raguet clearly understood the process of adverse clearings and the specie-price-flow mechanism on an international level. Like the other advocates of American free banking (especially the New York state law), Raguet advocated the government-bond-backed note plus a minimum specie reserve for the banks. This of course amounted to a greater than one hundred per cent reserve against notes, most of which was entirely illiquid until the bank failed (and the bonds were liquidated). Thus Raguet was a proponent of free banking primarily from the point of view

of safety. Familiar with the situation in the British monetary system, he favored a prohibition against small notes and government management of coin, although he clearly recognized the folly of fixed exchange rates between the precious metals (and the problems of Gresham's Law):

[b]y having coins of familiar and well-known weights the people would form the right conceptions of the true nature of money; and as the bullion dealers and brokers in all the cities would quote the price of ounces of gold as they do of sovereigns, they would be at all times current in their market value, and could never be driven from the country by our own legislation, or that of other states. (Treatise, p. 200)

Along with the view to noteholder safety that motivated Raguet's stand on free banking, we find some discussion as well on the issue of depositor safety. Depositor safety is not generally discussed by the free banking advocates, so Raguet's inclusion makes it unusual.

Like his contemporaries, Raguet did not believe in extending the protection of law to depositors. His view is typical of the time in that depositors could presumably judge the risk they were undertaking in the bank, as in any other business, when they decide to place their trust in its managers. Raguet states that depositors under the free banking system are at an advantage to depositors under the former system, in spite of the fact that no special provisions protect them. This, according to Raguet, arises specifically because of the banking law and the resulting inelasticity of the currency under its provisions.

But although this be true of depositors, they have this one advantage over the old system, that the bank must either pay them in coin or in notes which represent actual capital and not credit; and it is this feature of the system which gives it its superiority over the other, (p. 205)

Under strict convertibility and bond collateral arrangements, then, Raguet saw noteholder safety being maximized, and depositor safety being unintentionally increased as well, positions which modern-day monetary theorists challenge.¹³

In addition, Raguet has a theory of the business cycle which begins with an overexpansion of credit (in his case, due to banks of circulation) which resembles that of other monetary cycle theorists. The increase in paper gives rise to additional business activity, speculation, and debt, which eventually proves to be misdirected. The inflationary issue stops, debts are called in, and money becomes “scarce.” Prices fall, and speculators realize that the increases in prices were not, in Raguet's words, an “increase in value,” thereby signalling the decline. According to Raguet:

At this winding up of the catastrophe, it is discovered that during the whole of this operation, consumption had been increasing faster than production—that the community is poorer in the end than when it began—that instead of food and clothing it has railroads and canals adequate for the transportation of double the quantity of produce and merchandise that there is to be transported—and that the whole of the appearance of prosperity which was exhibited while the currency was gradually increasing in quantity, was like that appearance of wealth and affluence which the

spendthrift exhibits whilst running through his estate, and like it, destined to be followed by a period of distress and inactivity. (p. 137)

Unfortunately, there are parts of Raguet's Treatise that are not so well reasoned, but are perfectly consistent with the contemporaneous thinking which placed banks into one of three categories — banks of deposit, banks of discount, or banks of circulation. Particularly when considering the question of bond collateral and government debt, artificial divisions between bank functions impede his ability to recognize the solutions to problems of which he is well aware. For example, Raguet recognizes that public debt at all governmental levels often leads to real malinvestments of capital, and explores the problem of misdirected capital at length.¹⁴ However, when questions of proper banking policy arise with respect to the bank of discount (defined- as a bank that lends only its capital), Raguet strongly recommends that the only safe course of action is a “permanent” investment of the capital in a safe security, with government debt a primary choice.¹⁵

Carey

Henry C. Carey appears to have argued for freedom of entry in banking primarily from the standpoint of economic growth. Though unsatisfying from a theoretical perspective, he did point out to other participants in the discussions, and to the political influences in the reform, the relative prosperity of a system founded on relatively unencumbered competition. Thus he compares the Scottish experience to the charter system and points to Scotland's productivity and freedom from the cyclical swings that afflicted England under chartered banking.¹⁶ In this way he can be seen as making a case for a modified form of deregulation—the American free banking reform. It is interesting, however, that Carey notes and discusses as well the comparative superiority of the New England banks. Here he points to what he believes to be a defect in the Scottish system that was corrected in New England. The availability of limited liability in New England, according to Carey, makes it in that regard superior to the Scottish system, since limited liability facilitates the establishment of banking institutions (and thereby promotes economic growth).¹⁷ It is clear that Carey held no special commitment to *laissez-faire* in banking, except as far as it was expedient in promoting economic growth.¹⁸

Hildreth

The direct interference of government with any branch of trade has generally proved very disadvantageous to it. This has been the case especially with respect to the business of banking. (1840, p. 119)

Richard Hildreth is one of the few writers of the period to proclaim his distrust and disdain for government, particularly in the area of money and banking. He is also an advocate of free and open entry in banking because he contends that laissez-faire principles apply to banking as equally as to any other trade. Hildreth was a student of the British monetary experiences, and recounted in his works the effects on the British economy of the partnership between the British government and the Bank of England. Because of the evils which he attributed to partnership between government and banks, he stood in vehement opposition to the system of bank charter, and strongly supported free banking reforms in the United States. He, too, reprinted the New York state free banking act in his own work, Banks, Banking, and Paper Currencies (1840), and made extensive reference to its provisions.

Hildreth (and Raguet as well) was conscious of the public goods aspect of bank notes, but based his opposition to government monopoly in banking on the public choice aspects of the problem. Legislators and governments had their own political self-interest at heart. The essence of successful and mutually beneficial trade in any commodity,

on the other hand, lay in the self-regulating properties of rivalrous competition. Hildreth firmly believed that production of money should be treated almost perfectly analogously to production of any other commodity. In addition, Selgin and White (1986) discuss the aspects of Hildreth's thought that describe the knowledge problems which arise for a centrally "managed" money supply.¹⁹ Hildreth's discussions in this area and in that of the business cycle correspond to modern discussion of the cycle presented by Hayek and monetary disequilibrium theorists of the Austrian school.²⁰

While chiefly motivated by laissez-faire principles, Hildreth does not advocate an entirely laissez-faire approach to free banking law. At first inspired by the advantages of open entry and free competition, Hildreth became persuaded that safety under such a system would not be guaranteed without a government-bond-backed note issue. Thus Hildreth retreats on his laissez-faire principles in this aspect of his thinking. By the nineteenth century, the assumption that banks would redeem their notes on demand was typical. Hildreth argued that banks which could not redeem their notes in specie were "unbanked" at once—made insolvent. A staunch redeemability advocate, Hildreth viewed an irredeemable currency as virtually worthless, and is said to have claimed that "non-specie-paying banks are

the greatest nuisances with which a country can be cursed.”²¹

Hildreth attributes much of banks' difficulties to the admixture of banking and politics. The difficulties due to this partnership arise either out of the monopoly privilege associated with the charter system, or out of the speculative booms (monetary business cycles) created by the government. The first situation, the charter system, results in far greater fluctuations in credit when the number of banks is legally limited than when banks are free to multiply. He details the comparison between a monopolized currency system and a competitive monies system in times of credit contraction, correctly concluding that the fewer the number of banks in the system (in the limit of the monopolized system, one bank), the greater will be the impact of a credit contraction of a given proportion—say, one half—when compared to a system of numerous note-issuing banks (1837, pp. 123-137). The figures that Hildreth uses to make his point, based upon a notion of strict proportionality, probably are inaccurate. The principle that he employs, though, that the effects of bank runs and credit contraction are mitigated when there are numerous competing institutions, is nevertheless valid.

On the issue of speculative booms, Hildreth is outspoken, and it seems appropriate to quote at length:

It is proper to mention in the first place, that all those issues of paper, originally irredeemable on demand, whether called bills of credit, assignats, treasury notes, or by whatever other name,—issues which have been the origin of so much of the prejudice felt against a paper currency, and of so much of the distrust with which it is regarded,—have all originated not with bankers or with merchants, but with governments...

In the second place, those great disasters which have from time to time overtaken the banks, resulting in a general suspension of specie payments, by which the notes of the banks were converted into a currency precisely similar to the irredeemable government issues above mentioned,—these great disasters are directly traceable in their origin, and in their continuance, to an unfortunate and impolitic connection between the banks and the government. (1840, p. 119)

Hildreth attributes the disasters of 1814 and of 1837 directly to the banking system's interaction with the U.S. government and U.S. government debt. Thus he blames the suspension of 1814 on the banks' "extravagant" lending to the government. He also accuses the government as the chief culprit in 1837. Hildreth maintains that the panic of 1837 would never have taken place except that the government attempted "to use a part of the banks not merely as banking, but as political agents" (1840, p. 120). The distribution of the government "surplus" to the commercial banks with an encouragement to lend the government deposits, the huge expansion of credit which followed, and the subsequent withdrawal of the deposits by the government are clearly what Hildreth means to implicate:

A vast sum of money was suffered, for political purposes, to accumulate in the hands of these banks, which they were first encouraged to loan liberally, as a means of conciliating the good will of the public towards the administration; and then, by a sudden change of policy, they were obliged to call in those loans with a haste disastrous to their debtors, and distressing in its consequences to the whole country. (1840, p. 120)

Thus Hildreth is probably the most laissez-faire of the American free banking enthusiasts. He clearly identified the “mercantile theory of political economy” in an 1840 letter to Governor Marcus Morton of Massachusetts, on the governor and others' preoccupation with the quantities of gold and silver coin held by the banks. Finally, Hildreth was led to disclaim the popular notion that small notes are harmful or ought to be prohibited, posing most of his arguments in the the American free banking debates from a laissez-faire perspective. As Selgin and White quite accurately point out, however, Hildreth did maintain a major concession to regulation in his advocacy of the bond- backed banknote in the New York state free banking law.²²

Conclusion

It is clear from the positions taken by major theorists in the American free banking discussions that the two themes of safety and open entry dominated. Some authors, such as McVickar, Hildreth, and Raguet, proposed reform based upon their conviction that open entry was superior, and came to the conclusion that the actual reform that was adopted in

New York, its free banking law, offered a superior solution because it coupled (coincidentally) safety with open entry. Other participants thought safety a more pressing issue, and advocated the bond-backed-note to meet that need. In these cases, open entry came as a by-product, charters being superfluous and cumbersome under such a system. Proponents of this view come mainly from the political arena or from those connected closely to it: again McVickar, Eleazar Lord, and Joshua Forman, Governor Marcy of New York, and others.²³ Most of these individuals influenced each other, whether directly or indirectly, giving life to the uniquely American version of open entry called free banking.

Notes to Appendix A

1. See Redlich, p. 191.
2. Redlich, p. 192.
3. Redlich, p. 192.
4. See Selgin and White (1986), p. 10.
5. White, ed., *Democratick Editorials: Essays in Jacksonian Political Economy* by William Leggett, pp. 3-4.
6. *Ibid*, p. 66,
7. *Ibid*, pp. 66-7.
8. *Ibid*, p. 67.
9. *Ibid*, p. 68.
10. *Ibid*, p. 70.
11. Selgin and White (1986), p. 12.
12. White, ed. , p. 148.
13. The notion that bond collateral-backed notes maximizes the safety of the notes to the noteholder, or maximizes the chances that the bank will not become insolvent, has especially been challenged by White (1985). it is the feature that historical writers particularly liked, the inelasticity of the currency, that White sees as a problem. While bond-backed notes do take discretionary inflationist capabilities out of the hands of the bank's manager, they also cripple the bank in its ability to respond to extraordinary reserve drain. Thus white see the bond backing as a source of bank instability, anf not the reverse. This argument has also been advanced by others, including Selgin and (separately) Timberlake.

15. Raguet(1837), p. 88.
16. Selgin and White, p. 16.
17. Selgin and White, p. 15.
18. Selgin and White, p. 17.
19. Selgin and White, p. 19.
20. See Garrison, Roger W., and others.
21. Miller, p. 2.
22. Selgin and White, p. 22.
23. Fritz Redlich, p. 196.

Appendix B: New York Institutions 1811-63

<u>Time Period</u>	<u>Banking Industry</u>
1811-36	<u>Bank entry</u> of <u>1829</u> : charter by grant of legislature <u>1829</u> : Safety Fund Suspension of redemption and depreciation of notes : >1814 (ends 1815); >1817-19
1837-49	<u>1838: New York State Free Banking Act</u> Bank examination; bond collateral provision ties state debt to bank note issues <u>1840</u> : exclusion of mortgages and bonds other than state bonds for new collateral deposits. General suspension of redemption: >1837-1841
1850-62	Free banking Suspension of redemption: >1857 (year)
1863	National Banking Act Effectively ends free banking era via tax on notes

Appendix C: New England Institutions 1811-63

<u>Time Period</u>	<u>Banking Industry</u>
1811-36	Nominal charter requirements <u>1814</u> : suspension of redemption, including banks in New England <u>1820</u> : voluntary clearinghouse operations begin; fledgling Suffolk System >permanent and redemption deposits Correspondent services <u>1829</u> : legal restriction of note issue to 12.5% of capital
1837-49	<u>1837</u> : bank condition reports required in Massachusetts and most of New England <u>1837</u> : suspension of redemption; resumes 1838
1850-62	<u>1855</u> : Bank of Mutual Redemption formed <u>1856</u> : Boston Clearinghouse formed <u>1857</u> : suspension of redemption <u>1858</u> : free banking laws enacted in New England
1863	National Banking Act effectively ends laissez-faire banking in New England

Vita

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