

Portfolio Management of the Free Banks of Illinois: An Examination of Historical Allegations

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The period between 1836 and 1863 constituted an era of free banking in the history of the United States. During this time, withdrawal of regulations by federal and state governments left the banking industry relatively free. Any person or association of persons could open a bank without legislative charter or permission. The opening of a bank was relatively easy. The only restriction was the capital requirement which was limited to not less than \$50,000. The liability provision of the bank was "limited." The shareholders of the bank were liable to the amount of their stocks. During the early stage, banks could be opened in any city, town or village without any population restriction. However, in 1854 and 1857 restrictions of varying numbers were imposed. For example, a bank could not be opened in a locality with a population of less than 1,000. As a result of the relative ease of banking there was a large growth of financial institutions. In Illinois, financial growth was noticed in the operation of 141 banks and their increased volume of money supply and deposit transactions.

The literature on free banking has sharply altered its focus in the last two decades. While the alleged failures of free banking have been closely analyzed and shown to have been greatly exaggerated the link to fractional-reserve banking has been missed in the literature so far. Economopoulos (1988), who pioneered the

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The Review of Austrian Economics Vol. 9, No. 1 (1996): 55-76
ISSN 0889-3047

modern study of Illinois free banking, mentions this issue and we would like to draw out its full implication.

During the period between 1852–1863 a total of 131 banks closed in Illinois. So it was alleged that free banking led to bank failures and “wildcat” banking, i.e., that banks were engaged in issuing liabilities without any cash reserves in their vault or capital and assets to protect these liabilities. Note holders in particular were at risk. In order to avoid payment of the liability holders’ claim, banks were said to have resorted to various unfair practices such as holding fake specie reserve and locating bank offices in an unknown or inaccessible place where they would be difficult to find. Here are a few examples of such views:

Banks of very dubious soundness would be set in remote and inaccessible places where “wildcats” thrived. Banknotes would then be printed, transported to nearby centers, and circulated at par. Since the issuing bank was difficult, often dangerous, to find, redemption of banknotes was, in this manner minimized. (Luckett 1980)

Speculators bought bonds, issued notes to pay for them, and eluded their debtors by taking to the woods among the wildcats. Notes were issued by bankers with no known business. Their (banks) cash were sometimes of nails and broken glasses with a layer of coins on the top. (Hammond 1963, 1957)

The allegation of fraudulent banking practices and insolvency of Illinois banks was that they had little capital reserves or liquidity to support their liabilities. Liquidity in particular requires a study of the portfolio of these banks. Many of the details stated in what follows rely upon Samad (1991) to which the interested reader is referred.

Review of the Literature

The study of the free banking period has been an important topic in the context of our present banking crisis and several studies have looked into our banking heritage. Hugh Rockoff’s pioneering thesis (Rockoff 1972) asserted that the provision of par value of the bonds, particularly when the par value of the bond was greater than the market value, caused wildcat banking in most states and thus failure of free banking. According to him, the states that witnessed wildcat banking were Illinois, Indiana and Wisconsin. Recent studies (Economopoulos 1990; Rolnick and Weber 1982, 1984; and Samad 1991) found no such evidence, for Illinois in particular.

Hilderlith and Rockoff (1973) made an important study on free bank's portfolio management which found the reserve position of the free banks in Boston, New York, and Philadelphia to be the product of careful decision making instead of erratic, gambling behavior. For example, risk-averting banks with a high capitalization rate were found to have held less reserve compared to banks with a low capitalization rate. Banks issuing more deposit liabilities as a source of bank funds were found to have held more reserves since they were exposed to higher risk than the banks which issued less deposit liabilities.

Rolnick and Weber's (1982, 1984, and 1986) studies provided new findings which challenged the traditional view of free banking failure. According to their studies, it was not Rockoff's par valuation provision but rather it was the sharp decline in the asset prices which were backing notes that caused the liability holders to panic and ultimately led to free bank failure. Their study covered four states, New York, Minnesota, Michigan, and Indiana. Illinois was not covered in their study nor did they study the portfolio management behavior of the free banks.

Economopoulos (1988, 1990) made two important studies. One study (1990) was related to Wisconsin Free Bank. In his study of Illinois Free Bank, Economopoulos (1988) examined two hypotheses: (a) the wildcat banking hypothesis and (b) the falling asset hypothesis. The main focus of his study was directed to testing the hypothesis that falling bond prices caused bank failures in Illinois, and he found some evidence in support of this. During the period of June 1860 and June 1861 he found many bank failures (89 banks failed) associated with the sharp decline—55 percent drop—of bond prices. “[T]hus the evidence indicates that the fall of bond prices was a major factor in the free bank failures of Illinois” (p. 263). He tested the wildcat banking hypothesis with the criteria of Weber and Rolnick and found that “traditional accounts of wildcat banking in Illinois are unsubstantiated” (p. 263). Economopoulos (1990) examined the portfolio management behavior of Wisconsin's free banks. He found that “solvent banks held more loans and specie, and issued more deposits and less banknotes than closed banks.” However the portfolio behavior of Illinois banks was not covered by either study.

Our study differs from the earlier studies in examining Illinois's wildcat banking through various indices to measure the bank's ability to pay short-term debt obligation and the bank's

way of utilizing debt (lender's money). These ratios, computed from the various aggregate balance sheets of the free banks, are used as the quantitative measure for testing the bank's fraudulent and liquidity behavior. Furthermore, we have made a comparative study with the portfolio balances of the Ohio free banking system. Ohio was one of the states which had a successful free banking system. It is, therefore, important to compare the portfolio behavior of the two banking systems to determine whether or to what extent Illinois experienced responsible banking practices.

Our study relies on different data sources. In addition to the State Auditor's reports, the most important source of Economopoulos's study, we have used various U.S. House Executive Documents and reports of the U.S. Controller of Currency. In fact, the latter two sources constitute the most important sources of our data base. Our results are similar to that of Economopoulos except in minor variation of number and the percentage, and thus serve to reinforce his conclusions on wildcat banking.

Therefore, the main focus of this paper is to examine the portfolio behavior of the free banks of Illinois in connection with the historical allegation.

Portfolio of the Illinois Free Banks and Evidences

Like any other business corporation, the Illinois bank of the antebellum period was a private firm that provided depository as well as note-issuing services. The banks were engaged in manufacturing and retailing "money" in their quest for profits subject to some constraints. While the banks held deposits from the individuals and businesses and issued notes to support their loans, banks were required to deposit an equivalent amount of the U.S. or state bonds to the State Auditor. These bonds were valued at the market price, *not* at their face value.

Their lending policy was also subject to some legal restrictions. The bank could not legally charge more than seven percent although the market interest rate was higher than seven percent (Cole 1919; Samad 1991). Here is a quote from Article 28 of the Illinois Law 1851:

That any such association or banker, in doing business under the provision of the Act, shall not be authorized to take or receive exceeding seven percent per annum as interest on real or personal security.

The bank's objective was to increase its shareholders' wealth. Profit maximization depends on successful portfolio management. Striking a balance between profitability and liquidity is the key concept for successful bank management. A prudent banker must choose assets, including liquid reserves, to ensure adequate protection from illiquidity while generating enough income to stay in business. This is not an easy task. Given a banker's preference for risk, portfolio choice becomes a function of the structure of asset and liability influencing risk and return. Although bankers' risk preference differed across banks, the bankers of Illinois free banks, in general, are assumed to have been risk averse instead of risk lovers.

Unlike today, there were no reserve requirements in the free banking era. As a result, a bank's own assessment of risk and return decided the portion of the total assets to be held in reserves. The banks of this period could issue deposit and note liability, apparently, without any restriction of reserve requirements. However, banks were required to deposit 100 percent U.S. or state bonds to the State Auditor as collateral to support their banknotes. Article 2 of the Free Banking Act of Illinois states:

whenever any person, or association of persons, formed for the purpose of banking under the provisions of this act shall lawfully transfer to and deposit with auditor any portion of public stocks issued, or to be issued, . . . such a person, or association of persons, shall be entitled to receive from the auditor *equal amount of such circulating notes.* (Illinois Law 1852)

The *Banker's Magazine* states:

when a general banking law was passed, which authorized any person or persons, on depositing with the Auditor of the State any of the stocks of the United States . . . *to receive an equal amount of banknotes, to be used for banking purposes.* (1854, p. 13)

Thus as long as a bank could provide U.S. or State bonds as collateral for the amount of note-liabilities, there was no restriction on a bank to issue notes. Illinois free banks were subject to much harder restrictions than the present commercial banks; like the demand deposits, the notes of the free bank issued were required to be redeemed in specie (gold and silver coin) on demand whenever they were presented to the counter of the bank. If a bank failed to redeem its notes on demand, the note-holder

had a legal right to sue and close the bank. Such a right of closing a bank lent an added emphasis for liquid reserves in the portfolio management of the free banking system.

The study of free banks' reserves, and their liquidity in particular, must be analyzed from the context of the economic environment in which the banks operated and the aggregate structure of their assets and liabilities.

Illinois Economic Conditions

An understanding of Illinois economic conditions in the 1850s—the structure of its population, agriculture, industry and transport—is essential for the study of banks' portfolio management, and lending behavior in particular. In the 1850s Illinois was making a rapid transition. It attracted a special breed of migrants during the second quarter of the nineteenth century. Whereas the earlier migrants of Illinois were, as Governor Ford described, "unambitious of wealth and great lover of ease," the new migrants, "Yankees" in particular, who moved from the eastern provinces were great lovers of unending wealth and risk. They were talented workers, capitalists and above all entrepreneurs (Ford 1942; Pooley 1908). They were extremely eager for bank credit to build up their fortune.

During the 1830s and 1840s there had been tremendous development of river, canal, and railroad transport in Illinois. This transport development paved the way for the development of agriculture, industry, and commerce. The prairie land of Illinois was brought under large and commercial farming. Investments in agricultural implements and machinery demanded the release of bank credit to help sustain the growth of agriculture. The surplus produce of commercial farming had to find markets. People involved in marketing needed capital. Bank credit was the only source which could provide financial support to their needs.

Thus the need for capital, bank credit in particular, was fundamental to the farmers, manufacturers, and merchants. The state desperately needed bank credits to meet the economic needs of the people at the time. The market for bank credits already existed. Only local banks and their supply of bank credits were absent. "After the general crash in 1837, the state (Illinois) was without banking associations until 1851" (*Banker's Magazine*, July 1854, p. 13).

Some businesses from outside Illinois were taking advantage of this tight financial situation. For example, the Wisconsin Marine & Fire Insurance Company was successfully issuing notes

in Northern Illinois although it was declared illegal for Wisconsin Marine & Fire to issue notes. Although its notes were illegal, the people of Illinois who were in need of money were accepting them in large numbers. They paid no heed to the law.

The banks of Missouri and Ohio were also successfully banking in Illinois. Each year these banks earned substantial profits and transferred them from Illinois into their mother states. People in need of credit to meet their needs were accepting them without giving any consideration of the origin or legality of these banks.

Illinois free banks opened at a time when there was such a pressing need for their loans. In this condition of financial hunger, the supply of loans by way of banknote would not be turned down by individuals and would not be returned to the clearinghouse for redemption (Selgin 1988, p. 67). The issue of banknotes to finance the credit needs of the individual and business acted as a medium of exchange side by side with specie.

Asset-Liability Structure of the Illinois Free Banks

The free banks of Illinois were required to report their assets and liabilities, the names of their stockholders and the bank's location to the Office of the State Auditor, and the auditor's office in turn published this information in its biannual reports. An aggregate balance sheet is randomly selected from the Bank Commissioner's Condition Report and presented in Table 1 to show the nature of assets and liability of the free banks.

Liabilities

It appears from the aggregate balance sheets (Samad 1991, various House Executive Documents) that the free banks of Illinois were engaged in issuing two major types of liabilities: banknote and deposits. The paid up capital of the banks was the major source of the bank funds except in three years, i.e., 1855, 1859, and 1860. The paid up capital was required to be invested in long-term U.S. and state bonds. By depositing these eligible assets, the banks obtained an equivalent amount of banknotes for circulation. These notes were exchanged for loans and discounts, for specie or additional investments in bonds, i.e., they acted as a medium of exchange. However, these notes constituted about 43 percent of the total liabilities. The year-by-year distribution of banknotes is presented in the Table 1 in Appendix 1.

The issue of notes had two special characteristics. Banks were exposed to high risk when the notes of the bank could not be

redeemed on demand. Failure to pay note-holders on demand would, in normal circumstances, result in the forfeiture of banking license. Such a harsh penalty provision provided bankers, prudent bankers in particular, an incentive to maintain adequate cash (specie) reserves or near cash reserve (which could be redeemed into specie with less time and cost) to meet the liquidity needs of the bankers.

The amount of banknotes in circulation was linked to the deposits of U.S. and states bonds. As such, the notes were safe and exchanged for loans and discounts or specie or additional investments in bonds. These notes acted as a medium of exchange just like specie.

As depository institutions, free banks were also issuing deposit liabilities. Deposits of the Illinois banks constituted a small percentage of the total liability because of the agrarian economic character of Illinois. Deposits were mostly savings. Deposit liability has advantages. One of the greatest benefits of issuing deposit liability is that the deposit holders could not invoke banking license on default. Thus, banks were not required to back these deposits with bond collateral. Secondly, interest payment on deposit was not a common practice during those days (Economopoulos 1990, p. 426).

In case of bank failure, note-holders' claim was applied first. This first lien provision and the legal rule that noteholders could revoke banking license if a banknote was not redeemed on demand provided an incentive for the bank depositors to put their money on saving deposit and monitor the financial position of the bank.

Miscellaneous liabilities constituted a very small percentage and therefore did not warrant discussion.

Assets

The assets of the Illinois free banks were made up of reserves and investments in varying combinations.

Reserves were the bank's most liquid assets and were mostly non-earning assets. Since reserve items are not profit making, banks usually keep them at a minimal level. As opposed to the division of reserves of the present time like legal reserve, required reserve, and excess reserves, etc., the free bank was not subject to any such legal reserve requirement. Banks decided the amount of minimum reserves as the amount which provided safety for the bank, on one hand, and maximum opportunity of earning on the other. The most liquid assets of the free banks

were, in descending order of liquidity, specie reserves, notes of other banks, bankers' deposits with other banks, additional investment in U.S. and states bonds, and real estates.

Specie in the bank's vault was the most liquid asset of the bank. It was the legal tender of the period. As the specie reserve was a non-earning asset, banks determined their amount based on past experience. The specie reserves of Illinois free banks against banknotes in circulation and deposits issued were, on average, 11 and 43 percent respectively.

In order to supplement specie reserves, the free banks of Illinois invested in the banknotes of the other banks. Notes of other banks in a bank's vault could be considered as near liquid. They could be cashed into specie as there existed markets for banknotes in New York, Philadelphia, and St. Louis. Investment in the notes of other banks minimized the need of excess specie reserves arising from note circulation. Investment in banknotes was, on average, seven and a half percent of the total circulation plus deposits. This procedure provided mutual insurance and reinforced credibility (Calomiris and Kahn 1990).

Illinois free banks were also found to have maintained investments with other banks. These investments were in the form of keeping deposits with other banks and buying the bills of other banks. Small bankers and county bankers traditionally maintained correspondent funds with the large and city banks so that whenever a small bank or a county bank was in need of extra specie, they could turn on them. The earnings from these investments were not the principal goal of the bank. It minimized specie needs and provided additional sources of reserves and thus ensured safety. Deposits with other banks and debt owing to banks other than loans and discount constituted about 30 percent of the total assets. Investment in others' banknotes plus bankers' deposit constituted about 43.8 percent of Illinois circulation and deposits.

The free banks of Illinois were found to have held other types of assets in their portfolios. In descending order of liquidity, the assets were compulsory investments in the U.S. and the states bonds and loans and discounts. The investments in loans and discounts and government securities were a bank's principal earning assets.

Investments in the long term government bonds constituted a significant portion of the total assets. It amounted to 100 percent of the note liabilities and about 48 percent of the total assets. This high percentage resulted from a number of reasons. *First*, the U.S. and States bonds were relatively the safest asset

to invest even though there were fluctuations of bond prices. *Second*, there was a ready market for bonds. Banks could easily sell their excess bonds without substantial loss in value. However, the securities deposited as a collateral to support banknotes were not allowed to be sold even when a dollar banknote was protested. *Third*, the rate of interest earned on bonds was relatively high and risk free. The default risk of government securities was almost nil.

The most unusual characteristic of bond investment was that although the free banks of Illinois were holding a large quantity of assets in their portfolio, *they were not permitted to use this asset/resource to meet any emergency of the bank*. They could be withdrawn and used only when the banks had met all obligations of the liability holders. This leads us into a central contention—free banks were virtually 100 percent reserve banks; their failure was a failure of regulation.

Loans and discounts were an important asset, accounting for about seven percent of the portfolio of the Illinois free banks. The banks could easily meet the liquidity needs by calling in some loans. Since they were short-term investments, the costs of converting them into specie were presumably not high. While they were assured of easily obtainable ready cash with less transaction cost, these investments were a good source of earnings when bills were bought and discounted.

Thus the Illinois free banks' supply of liquid reserves was defined as the combination of specie and demand claims on specie consisting of notes of the other banks, correspondent funds (which each bank held with other banks). In addition to these reserves, banks held a significant portion of their assets in loans, bills discounted, and other assets. Some of these assets were quite close to liquidity because any asset which could be converted into specie quickly and at a low cost could have potential ability to meet banks' liquidity. Although secondary markets for bank loans did not exist, they themselves were short-term ranging from three to twelve months (Economopoulos 1990). Moreover, these loans could be called in at short notice. Therefore, the free bankers could match the maturity of loan portfolio with the anticipated liquidity needs of the banks.

Comparison of Ratios and Evidence for Illinois

The study of the aggregate balance sheet revealed that the free banks of Illinois held large quantities of liquid, near liquid, and illiquid asset in their portfolios to support the total liabilities.

Table 1
A Summary of Comparative Figure of Ratios

Ratios	Illinois	Ohio
Capital Circulation + Deposit	.75	.48
Capital Circulation	.97	.69
Specie Circulation + Deposit	.097	.15
Others' Notes + Bankers' Deposit Circulation + Deposit	.34	.438
Capital Assets	.40	.28
Notes Circulated Deposits	.066	1.9

Whether these reserves were adequate for the honest portfolio management, given the structure of risk and return of their portfolios and Illinois economic condition, has been studied with reference to those of the Ohio banking system of the same period. The Ohio free banking system was chosen because the Ohio banking is unquestionably acclaimed as one of the most successful of the period. The various financial ratios like capital to deposit, capital to major liability, capital to asset, specie to notes, and specie to major liabilities provide deep insight into the operation of the banks portfolio management.

These ratios are used to measure the risk-return attitude of Illinois free bankers. The comparison of these variables between the Ohio and Illinois banking system would suggest whether or to what extent the behavior of the Illinois bankers was fraudulent. A summary of these ratios are presented in Table 1. The detailed year-by-year figures for these ratios would be available upon request.

Analysis and Interpretation of the Ratios

Capital Ratios

The total capital of a bank in itself has little meaning. However, capital can be compared more significantly to other items of

the balance sheet. Capital liability ratio is an important index of measuring a banker's preference for risk and return. The ratio of paid up capital to total liabilities provides a good measure of the proportion of bank funds not subject to sudden and unexpected withdrawal. Because of the stability of equity fund it was assumed that the higher the capitalization rate (i.e., the high capital-liability ratio) the lower the risk faced by a bank and vice-versa, *ceteris paribus*. The higher ratio of paid up capital to liabilities of a bank provides more protection to the liability holders than a bank with a small capital-liability ratio. Bank capital was intended to protect liability holders. Therefore, a risk-averse manager would hold smaller specie reserve if the capitalization rate was high. Hilderlith and Rockoff (1988) found the validity of this hypothesis for the banks of Boston, New York and Philadelphia.

The comparison of capital-liability ratio of the Illinois and Ohio banks presented in Table 1 shows that Illinois bankers maintained a significantly higher amount of paid up capital than that of Ohio bankers. The ratio of capital to major liabilities in Illinois and Ohio was, on average, .75 and .48 respectively. This high capitalization rate suggests that the bankers in Illinois were risk averse and their portfolio management was not fraudulent. Instead it was a product of careful decision making. They were not established to cheat depositors and noteholders.

Capital to banknote Ratio

Historically, regulatory authorities required banks to have total capital equal to about one-tenth of the total deposits to help protect the depositors. During the free-banking period, the main concern of the bankers was not the depositors but the noteholders. Because a bank's failure to redeem these notes on demand could close a bank. Therefore, the high ratio of capital to banknotes would reflect a bank's genuine concern for the noteholders. The comparative ratio of capital to circulation of Illinois and Ohio banks presented in Table 1 was .97 and .69 respectively. The higher ratio of capital to circulation would suggest that Illinois bankers did care for their liability holders and were risk averse. Capital represented those funds that a bank could lose without endangering its ability to pay its creditors. Compared to present time ten percent rule, Illinois bankers followed about 100 percent rule to protect their liability holders. So, the allegation of Illinois bankers' fraudulent behavior seemed unfair.

Specie Ratio

High ratio of specie to major liabilities, i.e., banknote plus deposits would indicate higher liquidity, therefore, lower liquidity risk exposure than a low ratio of specie to liabilities. The comparative specie ratios of the Illinois free banks and the Ohio free banks presented in Table 1 show that Illinois and Ohio bankers maintained specie reserves, on average, ten percent and fifteen percent respectively against their banknotes and deposits. Thus, it appears that the Ohio free banks' portfolios maintained five percent more vault cash/liquid assets than those of Illinois free banks. This would not mean that Illinois free banks were less efficient or fraudulent minded and that they would be exposed to high risk. It is consistent with the sound banking practice of the time. Deposits were a more volatile and riskier component of liabilities than notes (Myers 1931). Since Illinois banks issued more notes than deposits compared to those of Ohio banks it was consistent for Illinois bankers to hold a smaller proportion of specie reserves than that of Ohio banks. Hilderlith and Rockoff's study (1973) already supported the hypothesis that banks issuing more notes than deposits would hold less specie reserves in its vault.

The high capitalization rate and the high near liquid reserves of Illinois bankers would justify lower specie reserve in their portfolio. They held a significant portion of their assets locked in bond reserves. Moreover, Illinois free banks held a higher percentage of near liquid assets like notes of other banks plus bankers' deposits in their portfolio than that of Ohio free banks. The comparative ratio of notes from other banks and bankers' deposits to circulation plus deposits in Illinois and Ohio was 44 percent and 34 percent respectively. On the other hand, the five percent higher specie reserve by the Ohio free bankers would be expected because the Ohio banks held less capital against their circulation than the free banks of Illinois. Deposits of the Ohio banks as a source of bank funds were larger than notes in circulation. The deposits, as noted earlier, were more risky than notes.

Circulation Deposit Ration

A bank relying heavily on deposit as a source of bank's funds would be expected to bear greater risk than the bank relying on notes as a source of bank funds. Notes were issued to support loans and the loans had many stringent conditions attached to them. For example, borrowers receiving loans could not redeem

these notes within some specified time. Banks preferred to issue notes for the purchase of long distance goods and services (Golembe 1978). Banks discouraged loans by charging a high rate of interest if the note supporting loans were expected to return soon. In such loan markets, maintaining a high ratio of circulation to deposit would mean that the banker felt less at risk than the banker holding low circulation to deposit ration. Consequently, a bank with high ratio of circulation to deposit would hold less specie and more secondary reserves like notes of other banks, banker's deposits, etc. This policy would ensure safety as well as profitability. The comparative ratio of circulation to deposit of Illinois and Ohio banking system presented in Table 1 was .066 and 1.9 respectively. Since Illinois bankers were maintaining high ratio of circulation to deposit, it was expected that they would hold less specie and more secondary reserves which was reflected in the high ratio of other banks' notes and bankers' deposits to major liabilities (i.e., circulation and deposit). The ratio of secondary reserves in Illinois was .340 as opposed to .438 in Ohio shown in Table 1.

Structural Comparison Between the two Banking Systems

There have been some important structural differences between the Ohio and the Illinois free banking system.

In Illinois, there was only one type of bank, the free bank, in operation during the period under consideration. Consequently, they had no experienced model bank in the state to follow with respect to their lending and specie reserve policies. With the closing of the State Bank of Illinois in 1842, there was no other bank in the state than the Free Bank.

In Ohio, there had been three types of banks simultaneously in operation. They were: (1) branches of the Ohio State Bank, (2) Independent Bank and (3) Free Bank. Among these types of banks, the Ohio state banking system was experienced and constituted the largest share in the market in terms of bank number and bank capital in Ohio. The number of free banks and their total bank capital never exceeded one-third of the total Ohio State banks and their capital. Tables II and III substantiate our claim.

Since the Ohio State banking system had long been in operation prior to Ohio free banking, the Ohio Free Bank might have used them as their model in their banking practices. Consequently, the Ohio free banks as newcomer followed cautious banking practices with respect to specie reserve and lending policies while competing with the established banking firms.

Table 2
The Types of Banks and Their Total Number

Year	Independent Bank	Ohio State Bank	Free Bank
1853	3	44	13
1854	12	43	14
1856	12	42	13
1858	9	36	10
1858, Nov	9	36	11
1861	7	36	12
1862	7	36	12
1863	5	36	10

Numerous Free Bank Failures?

It was alleged that there were numerous free bank failures in Illinois. The view that there were numerous bank failures and that banks were in existence only for a short while during the free banking period were examined by Rolnick and Weber (1984) in four states: Indiana, New York, Michigan, and Minnesota, to test Rockoff's par valuation hypothesis (Rockoff 1974) and its impact on the bank's business life. This paper examines the bank failure rate and average bank life for Illinois free-banking period.

Bank failure and bank closing are not synonymous. When a bank paid all of its liabilities and then closed the business, it was closing of a bank at par. The closing of bank at par is not a failure of bank. It was a voluntary closing. A bank just like any other business might have closed banking firms voluntarily for different reasons. The closing of a bank at par involved no losses to the liability holders. So, the bank which closed at par could not be considered a failure.

A bank is said to have failed when it was closed below par. If the note-holders of a bank were not paid in full, then the closing of bank was considered a failure because the bank was ordered to be closed; it was an involuntary closing. Taking this criteria into consideration, Samad's study (1991) reveals that only two

Table 3
Capital and Asset Structure
of Free Banks vs. Ohio State Bank

Year	Ratio	Free Banks	Ohio State Bank
1853	Circulation/specie	2.38	4.36
	Liability/capital	4.50	4.00
1858	Circulation/specie	3.35	3.72
	Liability/capital	4.12	3.14
1861	Circulation/specie	3.38	3.71
	Liability/capital	3.29	5.09
1863	Circulation/specie	1.47	3.44
	Liability/capital	5.88	4.45

banks failed before 1861 although a total of 25 banks were closed. The failure rate is only 1.5 percent in nine years. This 1.5 percent failure rate (or two failed banks) during 1852–1860 speaks volumes for it does not mean there were numerous bank failures nor does it mean an unstable banking system. Free-bank failures however jumped up in 1861 when 94 banks closed. Of these, 89 banks were found to have failed. The failure rate in a single year, the first year of the Civil War, was abnormally high in Illinois. The failure rate was almost 95 percent in a single year. The large bank failure in a single abnormal year could not decide whether the free banking system of Illinois was a failure or success. If the failure rate of 1861 is ignored, the free-banking system is a relatively stable system. The total number of banks failing during the period 1852–1861 and 1862–1864 was only three although a total of 43 banks closed during the same period. After the initial shock of the Civil War, bank failures almost ceased to exist in Illinois. One bank was found to have failed between 1862 and 1863.

The issue of the free bank's numerous failures and short existence of operation explained by Rockoff is carefully examined in Illinois. According to Rockoff, it was profitable for a bank to close its business permanently when market value of the bonds backing the notes as collateral was less than bond's par value (face value) because notes were issued to the amount of the face value of the bonds. Thus, as soon as the circulation of notes was

complete, banks found it profitable to close the business. The life span of the banks in such a situation was found to have been very short—"maybe a month or two" (Rolnick and Weber 1982).

Rolnick and Weber's method is used for calculating a bank's average life. A bank's business life is counted as the difference between the date a bank was closed and the date the bank was opened for business. Using this technique, the estimated average life span of Illinois free banks does not substantiate the conventional view that Illinois free banks opened their business just for a short while to circulate their notes. This study finds that the average life span of an Illinois free bank was around three years and eight months. Only 20 or 14 percent of the banks were in operation for a period of less than one year; 29 percent operated between one and two years; 13 percent operated between two to three years; and the remaining 57 percent of the banks were in business for a period of more than three years. This is somewhat better than that noted by Economopoulos (1988).

This estimate of the average bank's life provided in this study is conservative. Each bank's opening date is counted from the date the bank's name was found to have first appeared in the condition report of the Bank Commissioner. When a bank's name was not found in the current condition report, then the date of the previous condition report showing the bank's name was considered as the closing date for that bank.

In such an estimate there is downward bias in the bank's average life span. Many banks could have been in operation for one to six months before they were found to have appeared in the bank's condition report. Similarly, many banks could have been in operation for a few more months before they had been reported in the next condition report. As such, my estimate of Illinois free banks' average years of operation is downward biased in both respects.

So, the allegation of instability of the Illinois free banks characterized by numerous bank failures and the short existence of banks' business operation is an exaggeration.

The allegation of banks' unfair practices by locating their offices in "an unknown and inaccessible place" was also studied. Only four banks out of 141 were found to have no exact place of location. These banks were: the Bank of Identity, the Bank of Kewanee, the Eagle Bank of Illinois, and Canal Bank. Their location could not be found in the 7th and 8th U.S. census. This meant that these banks were either fictitious or they were in the remote countryside where population figures were too low to

warrant census attention. The rest of the banks of Illinois (98 percent) were found to have been established in the county seats and in important townships. Judged against the location of population, our study shows a large majority of the banks were in communities of more than 1,000 people (Quinn and Samad 1991).

Thus, a generalized allegation of free banks' involvement in fraudulent practices is unjust and unfair.¹

Conclusions

According to aggregate balance sheets, the free banks of Illinois held wide varieties of assets in their portfolios and the value of these assets were larger than those of their liabilities. Therefore, the banks were never insolvent. The banks might have become temporarily illiquid but they were found to have held huge amounts of other resources in their portfolios. Whenever the value of their liabilities were exceeding the value of their assets, banks were issued margin calls or required to retire some of their notes from circulation. Their portfolio management was, thus, not intended to cheat the public. The aggregate balance sheet could not provide any conclusive evidence in support of the conventional view that the portfolio management of the free-banking system was fraudulent. It does not, however, rule out the possibility of irresponsible banking. There might have been some banks that were established with the fraudulent intention of circulating notes but not redeeming them.

The literature on free banking has laid inadequate emphasis on the financial hunger that characterized many states and which forms an appropriate background against which the responsibility of banking must be judged. The Bank of the State of Missouri wished to set an example of financial integrity in 1838 by refusing to issue its notes unless it covered them securely. Such was the demand for finance that a committee of 11 prominent citizens offered to endorse paper from the banks in Illinois and thus guarantee the Missouri Bank from loss. The Missouri Bank refused. In disgust, the merchants and traders of St. Louis moved increasingly to private banks and insurance companies (Hubbard and Davids, p. 60).

¹The approaching Civil War caused panicky noteholders to demand redemption and cause the price of Southern bonds to decline by 55 percent between 1860 and 1861. This contrasts with drops of 13 percent during the panic of 1854 and 24 percent during the panic of 1857. As Southern bonds were a major source of collateral for Illinois free banks, the subsequent failures became more understandable. A detailed study of failure due to the Civil War is underway and will be reported subsequently.

The center of economic activity moved from St. Louis to Chicago in the period 1840–1860 (see the maps in Cronon, *Nature's Metropolis*, chap. 6), so we can presume the pressure on Illinois banks to be just as great. That the Illinois banks were not principally, or even largely, wildcat banks was adequately shown by Economopoulos earlier by looking at location and at bond prices. (The only possible weakness being the focus on Tennessee bond prices, when Missouri bond prices would have been more relevant.) The Illinois banks had to issue notes at the market price of their bonds—thus providing for 100 percent reserve. That regulation was at least somewhat responsible for the failures of these banks, and was evidenced by the bank commissioners, who protested the notes not the noteholders and from a defective scheme whereby Illinois bonds, which everyone would be most cognizant of, were held at only 80 percent of their value while the bonds of other states could be held at full value. A close look at the balance sheets shows most banks did hold full reserves and therefore can be said to have been free and responsible banks.²

²An anonymous referee pointed out that this outcome is consistent with the prediction of Ludwig von Mises, *Human Action* 3rd ed. (Chicago: Henry Regnery, 1966), pp. 444–48.

Appendix
Statement of the Condition of the Banks
of the State of Illinois, on Monday, April 3, 1854

Resources

Total public stocks at which they were received by the auditor	\$2,475,741.62
Amount paid over the value at which they were received by the auditor	\$196,162.13
Real estate	\$ 3,158.22
Notes of the other bank on hand	\$385,339.45
Amount of debts owing to the associations other than loans and discounts	\$1,368,203.68
Suspended debt Specie on hand	\$565,152.04
Loans and discounts	\$316,641.76
Deposited with other banks	\$878,612.58
Expense accounts	\$4,874.97
Checks, drafts, and other cash items	\$63,892.41
Total resources	<u>\$6,257,778.86</u>

Liabilities

Capital stock paid in and invested according to law	\$2,513,790.17
Amount of debts owing by the association other than depositors	\$294,034.50
Amount due to the depositors	\$1,286,102.25
Notes or bills in circulation	\$2,283,526.00
Profit and loss account	\$71,787.00
Total liabilities	<u>\$6,449,239.92</u>

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