Federal Reserve Bank of Minneapolis Quarterly Review
Vol. 24, No. 2, Spring 2000, pp. 3–13

The Suffolk Bank and the Panic of 1837

Arthur J. Rolnick
Senior Vice President
and Director of Research
Federal Reserve Bank
of Minneapolis

Bruce D. Smith
Professor of Economics
University of Texas
at Austin

Warren E. Weber
Senior Research Officer
Research Department
Federal Reserve Bank
of Minneapolis

Abstract

The Suffolk Bank in Boston is well known as having been the clearinghouse for virtually all the banknotes that circulated in New England between 1836 and 1858. An examination of 19th century bank balance sheets shows that during and after the U.S. banking Panic of 1837, this private commercial bank also provided some services that today are provided by central banks. These include lending reserves to other banks (providing a discount window) and keeping the payments system operating. Because of Suffolk's activities, banks in New England fared better than banks elsewhere during the Panic of 1837. And after the panic, when much of the United States suffered a prolonged economic slowdown, New England fared better than the rest of the country, at least partly because of Suffolk's central bank–like activities.

Before the establishment of federal deposit insurance in 1933, the U.S. economy was subject to periodic banking panics. During such panics, banks suspended payments; that is, they refused to pay specie (gold or silver) at par for their outstanding notes or deposits. At the same time, banks were often forced to reduce lending, and a slowdown in economic activity usually followed. One of the worst of these panics in the United States was the Panic of 1837. Most banks suspended payments, and many banks eventually closed or failed. Further, the disruption in banking that began with the Panic of 1837 coincided with the start of a recession in the U.S. economy and a slowdown that lasted almost five years.

At that time, a private bank in New England—the Suffolk Bank in Boston—was operating as much more than a typical commercial bank. In 1826 the Suffolk Bank began the first regionwide note-clearing service in the United States, known as the *Suffolk Banking System*. What is well known about the Suffolk Bank is that by 1836 it had become the clearinghouse for virtually all the banknotes that circulated in New England. What is not so well known about the Suffolk Bank, and what we show in this article, is that during and after the Panic of 1837, it provided some of the services that we normally think of central banks providing during banking panics. These services included lending reserves to other banks—in effect, providing a discount window for member banks—and keeping the payments system operating.

Our findings are based on an examination of the Suffolk Bank's balance sheets from 1836 to 1843. These balance sheets indicate that the Suffolk Bank continued to make a large amount of short-term credit advances to other banks in its region during both the suspension of payments and the period immediately following the resumption of payments. They also suggest that the Suffolk Bank continued to clear the same volume of notes during the panic that it did before the panic took place.[1] A comparison of the Suffolk Bank's balance sheets with those of several other large U.S. banks also indicates that Suffolk's behavior, especially in regard to advances of credit to other banks, was atypical.

A natural question emerges from our findings: Were the Suffolk Bank's central bank–like activities beneficial to New England's economy? To that end, we compare Massachusetts' economy to Pennsylvania's. We find substantial evidence that is consistent with the hypothesis that the Suffolk Bank's activities benefited New England's economy. However, further research is required to rule out other possible explanations for the relatively strong performance of New England's economy during this period.

The Panic of 1837 and Its Aftermath

We start with a brief history of the Panic of 1837 and its aftermath into the early 1840s.

The Panic of 1837 began in the South with bank suspensions in Natchez, Mississippi, on May 4, followed by suspensions in Montgomery, Alabama, on May 9. Suspensions hit the North on May 10, when the banks in New York City suspended payments (McGrane 1924, chap. 4), then rapidly spread to other parts of the country. On May 11, the banks in Albany, Hartford, Philadelphia, Providence, and Baltimore suspended payments, followed on May 12 by the banks in Mobile and Boston and on May 13 by the banks in New Orleans. By the end of May, virtually all the banks in the country had suspended payments. The only reported exception was the State Bank of Missouri (Martin 1886, p. 30).[2]

The length of suspensions and the timing of subsequent resumptions of specie payments at par varied. On April 16, 1838, two prominent Boston banks were the first to resume specie payments. By the end of May, the banks of New England and New York had resumed payments. Most banks in the rest of the country did not resume payments until the fall of 1838. In August, the United States Bank of Pennsylvania (formerly the Second Bank of the United States), other banks in Philadelphia and the rest of Pennsylvania, and the banks in Maryland resumed payments, followed shortly thereafter by banks in the South.

Historians are undecided about the causes of the Panic of 1837. Some point to President Andrew Jackson's veto of the bill to recharter the Second Bank of the United States, which then ended its practice of disciplining riskier banks by returning their notes. (See Hammond 1957, pp. 438–45.) Others blame the so-called Specie Circular—an executive order issued in July 1836 under which only specie would be accepted as payment for public land, supposedly draining specie from the banking system and making banks more vulnerable to runs. (See Timberlake 1960.) Still others point to falling cotton prices. (See Temin 1969.) In December 1836, cotton prices had reached a high of 15.3 cents per pound, but by May 1837, were down to 11.5 cents per pound (Gray 1933, p. 1027). The fall in cotton prices in turn led to falling farm incomes, high rates of mortgage defaults, and concerns about bank solvency.

Regardless of the cause or causes, the Panic of 1837 appears to have been followed by a widespread economic slowdown that lasted in parts of the country for close to five years (Goldin and Margo 1989, p. 1). Due to the lack of early U.S. economic data, estimates of real gross national product (GNP) are, at best, very rough. Nevertheless, according to one of the more recent estimates (Myers 1992, Table IV), the U.S. economy slowed dramatically in the years immediately following the Panic of 1837. Between 1820 and 1836, real GNP grew at close to an 8 percent annual rate; between 1830 and 1836, at a 10 percent annual rate. In contrast, real GNP declined in 1837 and grew at only a 1.3 percent annual rate from 1836 to 1840. An overall index of stock prices reflects this slowdown, declining by more than 50 percent from its high in May 1835 to its low in January 1843 (Sylla, Wilson, and Jones 1994).[3]

This prolonged slowdown was associated with the advent of another widespread bank panic and suspension (*Niles' National Register* 1839). This suspension began in 1839 and lasted at least two years. On October 9, the banks in Philadelphia suspended payments, and by year-end, most of the banks in the interior of Pennsylvania followed. On October 10, the banks in Baltimore suspended payments, followed the next week by the banks in Providence, Richmond, and Norfolk; all but one bank in the District of Columbia; and all but one bank in Cincinnati. Many of the banks in Louisville suspended payments shortly after hearing about the

banks in Cincinnati. By the end of 1839, most of the banks in Tennessee, Indiana, and Louisiana had also suspended payments.

Bank suspensions in 1839, however, were not as widespread as those in 1837. According to *Niles' National Register* 1839, the banks in the following states did not suspend payments: New Jersey, New York, and the New England states except Rhode Island (the only New England state in which banks were not members of the Suffolk Banking System).

The Evolution of the Suffolk Banking System

By the mid-1830s, the Suffolk Bank of New England had developed a regionwide note-clearing business that placed it in a unique position during and after the Panic of 1837.[4] In this section, we briefly describe how Suffolk reached this position.

On February 10, 1818, the Suffolk Bank became the seventh bank to be chartered in Boston. Within a year, it had entered the note-brokering business—the buying and selling of country (non-Boston) banknotes, also known as *foreign money*. While the Suffolk Bank's note-brokering business was never profitable, it provided the testing ground for the development of a very profitable, regionwide note-clearing system.

By 1824, the Suffolk Bank had given up the note-brokering business and devised a new strategy for dealing with foreign money. The Suffolk Bank formed a coalition with the six other Boston banks to export country banknotes, with the goal of eliminating those notes from the city of Boston. However, the new note-purchasing strategy was unsuccessful.

In May 1825, the coalition of Boston banks suggested that the Suffolk Bank begin a new note-clearing business. The Suffolk Bank would provide a clearinghouse that would allow banks in the region to deposit their foreign money with the Suffolk Bank at par. The Suffolk Bank would then net-clear the banknotes it received. The Suffolk Bank would accept and clear at par all country banknotes deposited by banks that chose to participate in the system (Redlich 1947, p. 74). By 1826, the Boston banks had withdrawn from the original note-brokering coalition and become members of the new Suffolk Banking System (Suffolk Bank 1826; Mullineaux 1987, p. 890).

To participate in the System, a country bank had to maintain a non–interest-bearing, permanent deposit with the Suffolk Bank or with another Boston member of the Suffolk Banking System: For each $100,000 of capital, a country bank had to hold $2,000 on deposit. A country bank also had to maintain an additional non–interest-bearing deposit that was, on average, sufficient to redeem its notes received by the Suffolk Banking System. Boston banks had to maintain only a non–interest-bearing, permanent deposit. This deposit was initially set at $30,000, but was gradually reduced to $5,000.

This new arrangement produced two innovations. One was that banknotes were cleared by netting the accounts of member banks.[5] That is, notes deposited by participating banks at the Suffolk Bank were sorted and the net amount posted to the account of the appropriate bank. The notes of nonparticipating banks were sent to the issuing bank for redemption as quickly as possible. The other innovation was that the Suffolk Bank offered loans—in effect, overdraft privileges—to members of the System. A note-clearing system incorporating these innovations should have been attractive to its members. In particular, the process of net-clearing had value to Suffolk Banking System members because it lowered the cost of redeeming banknotes. Because fewer notes had to be redeemed in specie, less specie had to be shipped and less held.

In its early stages, the Suffolk Banking System was relatively small in both its clearing and its lending activities. In the summer of 1824, the Suffolk Bank was receiving about $300,000 a month in country banknotes. This amount grew to $2 million a month by the end of 1825 and to well over $6 million a month by 1837 (Trivoli 1979, pp. 15, 21). To put these numbers in perspective, monthly clearing in 1825 amounted to approximately one-half of the stock of notes in circulation in Massachusetts; by 1837, monthly clearing was close to the entire stock. And by 1837, virtually all the banks in New England were members of the Suffolk Banking System.

Suffolk's Response to the Panic of 1837

How did the Suffolk Bank respond to the Panic of 1837? We find evidence that it behaved differently from other large banks in at least two respects. The Suffolk Bank increased the amount of reserves it loaned to solvent banks, and it continued to support the payments system. This evidence comes from the Suffolk Bank's balance sheet and the balance sheets of other large banks in Boston and Philadelphia. (We compare Suffolk with large banks in Philadelphia because we wanted a comparison with banks that were outside the Suffolk Banking System.) We interpret this evidence as suggesting that the Suffolk Bank played a central bank–like role during this period.

Loan Activities

During the period under consideration, most banks had an ongoing relationship with at least one other bank and, in most cases, several banks. For example, banks held notes of other banks, which appeared on the asset side of their balance sheets as "bills or notes of other banks." Banks accepted deposits of other banks, which appeared on the liability side of their balance sheets as "due to other banks." In the case of the Suffolk Bank, the permanent deposits of members of the Suffolk Banking System appeared in this latter balance sheet entry.

Banks also had deposits at and made loans to other banks, which appeared on the asset side of their balance sheets as "due from (or by) other banks." From records of the Suffolk Bank's directors' meetings during this period, we know that the Suffolk Bank made loans to other banks and that it did not have large deposits at other banks. Thus, we can reasonably assume that the item "due from other banks" on the Suffolk Bank's balance sheet consisted almost exclusively of Suffolk's provision of reserves to banks that were members of the Suffolk Banking System in the form of credits to their accounts at the Suffolk Bank. We view these loans as reserves, because member banks obtaining such loans from the Suffolk Bank could then use them to clear notes presented for redemption.

The amount due from other banks on the Suffolk Bank's balance sheet suggests that Suffolk was a major reserve provider during this period. Chart 1 shows that the Suffolk Bank's amount due from other banks increased going into the Panic of 1837 and reached $1.17 million in September 1837, four months after the panic had begun. (The shaded areas in Charts 1–8 indicate periods when banks in most parts of the country were suspended; recall that Massachusetts banks were not suspended during the second period.) Suffolk's "due froms" remained roughly at this level throughout the first suspension and throughout the period of resumption prior to the second suspension in other parts of the country. (Suffolk's high level of interbank lending during the resumption will turn out to be a major difference between Suffolk and other large banks.) The Suffolk Bank's lending to other banks returned to pre-panic levels during the second period of suspension, but as noted, a second suspension did not occur in New England.

The behavior of the Suffolk Bank contrasts somewhat with that of large banks in Boston and markedly with large banks in Philadelphia during the period. In Chart 2 we compare the amount due from other banks on the Suffolk Bank's balance sheet to those amounts on the balance sheets of three other large Boston banks of the time. We chose the Merchants' Bank, the Globe Bank, and the New England Bank for comparison because they were, on average, the second, third, and fourth largest banks in Massachusetts in terms of their "due to's" and "due froms" over this period. (The Suffolk Bank was the largest in terms of these two amounts.)

We find some differences between the Suffolk Bank's "due froms" and those of these other large Boston banks. Specifically, unlike Suffolk's, the Merchants' Bank's "due froms" declined during both the suspension and the resumption of payments. The Globe Bank's "due froms" rose slightly during the suspension, but declined during the subsequent resumption. The New England Bank's "due froms" had a pattern similar to Suffolk's: they remained roughly constant over both the suspension and the resumption periods.

While this comparison shows some differences, we note that during this period the other large Boston banks had only about one-fifth of Suffolk's "due froms." We want to compare banks that began the period with roughly the same amount of "due froms" as Suffolk. To do this, we look at five large Philadelphia banks. We chose the Bank of Pennsylvania, the Commercial Bank of Pennsylvania, the Farmers & Mechanics Bank, the Girard Bank, and the Philadelphia Bank because they were five of the top six Philadelphia banks in terms of "due to's" at the start of the panic and were, therefore, the banks best positioned to make loans to other banks.[6]

We show in Chart 3 that Philadelphia banks, like the Suffolk Bank, increased the amounts they had due from other banks during the first suspension.[7] And during this suspension, these amounts due were of roughly the same order of magnitude as those of the Suffolk Bank. However, the amounts due Philadelphia banks from other banks declined markedly immediately after the 1838 resumption, and, in fact, no large Philadelphia bank had more than $250,000 due from other banks toward the $1 million in "due froms." Further, even though the "due froms" of Philadelphia banks increased in mid-1839, the middle of the resumption, the "due froms" remained at less than half the levels attained during the suspension.

The pattern of the large Philadelphia banks' "due froms" suggests that their "due froms" may not have been loans of reserves. Instead, the large Philadelphia banks' "due froms" were more likely cashier's checks, bank drafts, and collection notes.[8] Philadelphia banks presumably would have had difficulty collecting these liabilities during suspension; hence, the run-up. Once the suspension ended, Philadelphia banks would have wanted to redeem these "due froms" as quickly as possible, unlike interbank loans of reserves. The pattern of an increase in the "due froms" during the suspension and a sharp decrease after the suspension was probably typical for most banks. These "due froms," therefore, did not represent the interbank lending of reserves, as they did for the Suffolk Bank. Further evidence supporting this conjecture is that the "due froms" for large Philadelphia banks also increased during the second suspension.

Not only does it appear that the Suffolk Bank made loans to other banks during the Panic of 1837 and the subsequent resumption of payments, but it also appears that the amount of this interbank lending was large. Consider that in 1841, the Suffolk Bank was clearing approximately $9 million in banknotes per month (Whitney 1878). Thus, the Suffolk Bank's interbank lending, which averaged $1.1 million per day over this period, was equal to about three days' worth of note clearing (assuming 24 working days per month). Further, Chart 1 shows that toward the middle of 1839, when banks outside New England were about to suspend payments again, the Suffolk Bank's lending to other banks was approximately equal to the amount that other banks had deposited with it. This means that, at this time, the net-clearing operation of the Suffolk Banking System was essentially running entirely on the credit of the Suffolk Bank.

The discussion to this point raises a key question: Why would banks have confidence in the Suffolk Bank's liabilities during times of financial distress? That is, why would they accept deposits at the Suffolk Bank as payment for another bank's notes rather than demanding specie either from the issuing bank or from the Suffolk Bank?

We think the answer lies in the high ratio of specie to net demand liabilities (bills plus deposits plus "due to's" minus "due froms") that the Suffolk Bank was able to maintain. In Chart 4, we plot this ratio for the Suffolk Bank and for all banks in Massachusetts other than the Suffolk Bank during this period. We see that through the first suspension and the subsequent resumption, the two ratios are very close. However, when banks outside New England suspended payments for the second time, the Suffolk Bank's ratio jumped above one and remained much higher than the ratio for other Massachusetts banks, at least until banks throughout the country had resumed payments for the second time. This high ratio, especially after resumption in 1838, should have made Suffolk Bank credit virtually as good as gold (or silver).

Payments System Activities

In addition to its lending activities, we contend that the Suffolk Bank supported the operation of the payments system throughout the period by continuing to clear banknotes. Our evidence to support this contention again comes from the Suffolk Bank's balance sheet.

As noted, the permanent deposits of members of the Suffolk Banking System appeared on the liability side of the Suffolk Bank's balance sheet as "due to other banks." If permanent deposits remained large throughout the suspension, that would be direct evidence that Suffolk was still clearing banknotes over this period. Suffolk's amount due to other banks is plotted in Chart 1. This chart shows that even though Suffolk's "due to's" fluctuated during this period, they were never less than $1.06 million, their level in November 1939. This amount was more than three times larger than the "due to's" of any other Boston bank at that date and $270,000 more than the "due to's" of any other Boston bank between 1837 and 1842. Thus, the level of other banks' deposits with Suffolk remained high during the Panic of 1837 and the subsequent resumption of payments.

We also have indirect evidence that the Suffolk Bank continued to operate the net-clearing business: During the suspension, Massachusetts banks were holding fewer notes of other banks and making more loans than banks in other parts of the country, specifically, banks in Pennsylvania.

Consider the problem a bank faces during a suspension. At some point in the future, the bank will have to redeem its outstanding notes (and, perhaps, deposits) in specie on demand. In preparation, the bank would want to increase its ratio of specie to notes.

One way the bank can increase this ratio is to increase its specie holdings, but in a suspension the scarcity of specie makes this difficult. Other banks are certainly not going to part with their specie, because they are in the same position. And the general public is unlikely to deposit specie, since the public is concerned about the liquidity of bank liabilities.

This situation leaves the bank with one other way of increasing its specie-to-note ratio: decreasing the amount of its notes outstanding. The bank can do this by calling in loans or by not renewing loans when they mature, because the bank will, in general, receive banknotes as the form of loan repayment. The problem, of course, is that there is no guarantee that the bank will get its own notes as the loan repayment, because generally during bank suspensions of this period, banks agreed to keep accepting each other's notes. Because a bank will not redeem its notes for specie, its notes will be returned by other banks only to the extent that those banks have the same correspondent bank or think the issuing bank holds some of their notes. Since the size of correspondent networks was probably small outside of New England and since information about where specific banknotes were held was probably costly to obtain, we would expect interbank note redemptions to be low during suspensions, causing banks to have to call in more loans than the amount of notes they want to get out of circulation. Another consequence is that during suspensions, banks find themselves holding a larger quantity of other banks' notes than under normal circumstances.

The problem is less severe, however, for banks that operate under a net-clearing system like the Suffolk Banking System. Under this System, when New England banks received notes of other banks, they could deposit those notes at the Suffolk Bank. New England banks would receive back from the Suffolk Bank any of their notes that had been deposited by other members of the System. This occurred regardless of whether or not banks had suspended payments. Once a bank had received its notes back from the Suffolk Bank, it could, of course, then remove those notes from circulation. In effect, the Suffolk Banking System helped ensure that when a bank called in a loan, it would receive its own notes as payment. As a result, a bank that was a member of a net-clearing system had to make a smaller reduction in loans to achieve a given reduction in notes outstanding than a bank that was not a member of such a system.

If this argument is correct, we should find that during the period we are examining, New England banks held fewer notes of other banks and reduced loans to a lesser extent than banks in other parts of the country. Using Massachusetts and Pennsylvania as proxies for the New England states and the central-Atlantic states, respectively, we think the evidence supports this argument.

The behavior of other banks' notes held (plotted in Chart 5) appears to support our argument. Although the amount of notes of other banks held by Pennsylvania banks declined at the start of the panic, it increased sharply shortly thereafter. Specifically, between June 1, 1837, and June 1, 1838, notes of other banks held by Pennsylvania banks increased by $1.39 million, from $2.74 million to $4.13 million. In contrast, over this period, notes of other banks held by Massachusetts banks actually declined. These notes totaled $3.10 million right after the panic began, but had fallen by roughly $750,000 to $2.36 million by the time banks resumed specie payments.

The behavior of bank loans in the two states during the period, shown in Chart 6, also supports our argument. We see that between May 1, 1837, and June 1, 1838, bank loans in Pennsylvania declined from $49.3 million to $38.0 million, a decline of $11.3 million (roughly 23 percent). Over the same period, bank loans in Massachusetts declined from $57.8 million to $51.3 million, a smaller decline of $6.5 million (about 12 percent).[9]

Suffolk's Effect on New England's Economy

Did the Suffolk Bank's activities enhance the relative performance of New England's economy over this period? The evidence suggests that it did.

To assess New England's economy during and after the Panic of 1837, we again compare Massachusetts with Pennsylvania. We think Massachusetts is a good proxy for New England's economy because it is the largest economy in that region. We chose Pennsylvania for comparison because it is geographically close to New England and because it was one of the largest economies outside New England that was not heavily dependent on cotton. Hence, we compare two economies that we think were subject to roughly the same aggregate shocks.

Because state-by-state measures of aggregate output do not exist, our comparison is based on four indicators of economic performance: loan volume, money supply

growth, production in leading industries, and stock prices. All of these indicators show that Massachusetts' economy outperformed Pennsylvania's.

We showed in Chart 6 that loan volume was larger in Massachusetts. To compare money supply growth, we compare bills (banknotes) in the hands of the public in the two states because banknotes were the bulk of the money supply. Chart 7 shows that the largest decline in bills in the hands of the public in Massachusetts was 13 percent (from approximately $7.3 million in May 1837 to approximately $6.4 million in October 1839). By May 1841, bills in the hands of the public were virtually back to what they had been in May 1837. In contrast, in Pennsylvania, between May and November 1837, bills in the hands of the public declined by 34 percent (from approximately $10.9 million to approximately $7.2 million.) And by May 1841, bills in the hands of the public were down by 64 percent to only $3.9 million.

The third indicator of economic performance we consider is production in key industries. In Massachusetts we select textiles; in Pennsylvania, anthracite coal.

Between 1826 and 1836, the annual rate of increase in textile production in Massachusetts was 46 percent, although the rate had slowed considerably by the 1830s. Between 1830 and 1836, the rate was 20 percent. And while the pace of growth in textile production continued to slow through the post-panic years, the rate still averaged more than 7 percent annually between 1837 and 1840. (Recall that the national economy over this period was growing at only about a 1.3 percent annual rate.)

In contrast to Massachusetts' textile industry, Pennsylvania's anthracite coal industry was expanding in the first half of the 1830s, but declined during the post-panic years. Between 1820 and 1836, the annual rate of increase in anthracite coal production in Pennsylvania was more than 14 percent. Further, the rate was rising sharply in the 1830s. Between 1830 and 1836, the rate was close to 50 percent. The health of this industry took a dramatic change for the worse after the Panic of 1837. Between 1837 and 1840, anthracite coal production in Pennsylvania decreased at an annual rate of 1 percent. (See National Bureau of Economic Research 1966, p. 221; U.S. Bureau of the Census 1975, p. 593.)

The fourth indicator of economic performance we consider is stock prices. Indexes of railroad stock prices are shown in Chart 8.[10] We find that while the prices of the railroad stocks in New England rose during the post-panic years, stock prices fell by almost 50 percent in the central-Atlantic region.

Some additional evidence that Massachusetts' economy did better than Pennsylvania's is that the latter suffered a second bank suspension, while the former did not. In October 1839, just over a year after the Pennsylvania banks resumed payments, those banks (and many others around the country) suspended specie payments again. This suspension lasted several years. As in the previous suspension, the amount of loans made by the Pennsylvania banks and the amount of their bills in the hands of the public declined precipitously. In contrast, Massachusetts banks avoided a second suspension, and banking activity continued at a steady pace.

We have found evidence that is consistent with the hypothesis that the central bank–like activities of the Suffolk Bank were at least partly responsible for the performance of New England's economy. However, establishing causality is always difficult in economics. It is plausible, for example, to conclude that the underlying strength of New England's economy led to a stronger regional banking system. That is, in a stronger economy, with banks making more sound loans, we would expect to see more confidence in banks and in their commitment to redeem their notes. However, this view of events does not explain why the Suffolk Bank's activities differed so much from those of other banks. Hence, we find the evidence persuasive that the Suffolk Bank's activities contributed positively to the performance of New England's economy.

Conclusion

During the Panic of 1837 and its aftermath, the Suffolk Bank was in an unusual position to perform activities that today are considered functions of a central bank. Because of its role as a clearinghouse for the banknotes of New England, the Suffolk Bank was able to provide reserves to other banks and to keep the payments system operating. As a result, banks in New England fared better than banks elsewhere. New England banks not only avoided a second suspension, but they also were able to maintain their loan volume. We have also shown that New England's economy fared better than those in other parts of the country, and we think it is reasonable to conclude that the performance of this economy was at least partly due to the Suffolk Bank's central bank–like activities. We admit, however, that further research is required to rule out other possible explanations for the strong performance of New England's economy.

Having established at least a prima facie case that the Suffolk Bank played a central bank–like role and that by doing so it may have enhanced the overall performance of New England's economy, we raise several questions that require further research.

- Why wasn't the Suffolk Banking System eventually duplicated elsewhere? Given its profitability (Rolnick, Smith, and Weber 1998) and its apparent benefits to the entire regional economy, we're surprised that similar systems did not develop in other parts of the country.
- Will unfettered market forces find ways to discipline banks? Or is Suffolk the exception to the claim that unfettered markets in banking are inherently unstable?
- What motivated the Suffolk Bank to act in the public's interest? Did the public's interest and Suffolk's private interest happen to coincide? Or was Suffolk more civic-minded than we might give it credit for? In other words, is there a need for a government-sponsored central bank?

*The authors thank the Baker Library, Harvard Business School, for the materials provided from its Suffolk Bank Collection.

†Weber is also an adjunct professor of economics at the University of Minnesota.

[1]Individual bank balance sheet data used throughout are from Weber 1999.

[2]We follow the terminology of the time and define *bank suspensions* as times when banks stopped redeeming their notes in specie on demand. Banks did not close their doors, but remained open for business. This point is made explicitly in the sus-

pension resolution adopted by the banks of New York City on May 10, 1837 (*Niles' Weekly Register* 1837, p. 162):

> In the meantime the notes of all the banks will be received at the different banks, as usual, in payment of debts, and in deposite; and as the indebtedness of the community to the bank exceeds three times the amount of their liabilities to the public, it is hoped and expected that the notes of the different banks will pass current, as usual, and that the state of the times will soon be such as to render the resumption of specie payments practicable.

In fact, of course, discounts on banknotes were observed.

[3]The South's economy appears to have been particularly hard hit. As noted, the price of cotton dropped sharply just before the Panic of 1837. On April 15, 1837, *Niles' Weekly Register* (vol. 52, pp. 118, 119) declared that southern merchants could not pay five cents on the dollar of what they owed to New York banks.

[4]See Rolnick, Smith, and Weber 1998 for a more detailed history on the Suffolk Banking System and Smith and Weber 1999 for an economic model of the monetary impact of a Suffolk-style banking system.

[5]Before this time, no net-clearing system for banknotes had been established in the United States. For example, the (Second) Bank of the United States, which dealt heavily in the notes of state banks, practiced *gross-clearing*—simply presenting each state bank's notes for redemption in specie.

[6]The Schuykill Bank is not included because, even though it had the second largest amounts due to other banks at the beginning of the panic, it went out of business at the end of 1838 or the beginning of 1839.

[7]Philadelphia banks appear to have had more volatility in their "due froms" than the Boston banks because Pennsylvania bank data are available four times a year for 1836 through 1840, whereas Massachusetts bank data are available only once a year.

[8]This is suggested by the discussion in Gibbons 1858.

[9]The difference in bank loan activity is much more dramatic if we compare the decline in Philadelphia to the decline in Boston.

[10]The indexes were constructed by Arthur Cole and consist of stock prices for five New England railroads and for five central-Atlantic railroads. (See Smith and Cole 1935.)

References

Gibbons, J. S. 1858. *The banks of New York, their dealers, the clearing house, and the Panic of 1857*. New York: D. Appleton.

Goldin, Claudia, and Margo, Robert A. 1989. Wages, prices, and labor markets before the Civil War. Working Paper 3198. National Bureau of Economic Research.

Gray, Lewis Cecil. 1933. *History of agriculture in the southern United States to 1860*. Vol. 2. Washington, D.C.: Carnegie Institution.

Hammond, Bray. 1957. *Banks and politics in America: From the Revolution to the Civil War.* Princeton, N.J.: Princeton University Press.

Martin, Joseph G. 1886. *Martin's Boston stock market: Eighty-eight years*. Boston: Joseph G. Martin.

McGrane, Reginald Charles. 1924. *The Panic of 1837: Some financial problems of the Jacksonian Era*. Chicago: University of Chicago Press.

Mullineaux, Donald J. 1987. Competitive monies and the Suffolk Bank System: A contractual perspective. *Southern Economic Journal* 53 (April): 884–98.

Myers, Charles J. 1992. A compilation of estimates of U.S. GNP, 1790–1840. Manuscript. Golden Gate University, San Francisco.

National Bureau of Economic Research. 1966. *Output, employment, and productivity in the United States after 1800: Studies in income and wealth*. Vol. 30. New York: Columbia University Press.

Niles' National Register. 1839. Vol. 57, various dates, pp. 97–333. Baltimore.

Niles' Weekly Register. 1837. Vol. 52, April 15, pp. 118, 119; May 13, p. 162. Baltimore.

Redlich, Fritz. 1947. *The molding of American banking: Men and ideas*. New York: Hafner.

Rolnick, Arthur J.; Smith, Bruce D.; and Weber, Warren E. 1998. Lessons from a laissez-faire payments system: The Suffolk Banking System (1825–58). *Federal Reserve Bank of St. Louis Review* 80 (May/June): 105–16. Reprinted in the *Federal Reserve Bank of Minneapolis Quarterly Review* 22 (Summer 1998): 11–21.

Smith, Bruce D., and Weber, Warren E. 1999. Private money creation and the Suffolk Banking System. *Journal of Money, Credit, and Banking* 31 (August, Part 2): 624–59.

Smith, Walter Buckingham, and Cole, Arthur Harrison. 1935. *Fluctuations in American business, 1790–1860*. Cambridge, Mass.: Harvard University Press.

Suffolk Bank. 1826. Directors' records, March 14. Available at Baker Library, Harvard Business School, Boston.

Sylla, Richard; Wilson, Jack W.; and Jones, Charles P. 1994. U.S. financial markets and long-term economic growth, 1790–1989. In *American economic development in historical perspective*, ed. Thomas Weiss and Donald Schaefer, pp. 28–52. Stanford, Calif.: Stanford University Press.

Temin, Peter. 1969. *The Jacksonian economy.* New York: W.W. Norton.

Timberlake, Richard H., Jr. 1960. The Specie Circular and distribution of the surplus. *Journal of Political Economy* 68 (April): 109–17.

Trivoli, George. 1979. *The Suffolk Bank: A study of a free-enterprise clearing system*. London: Adam Smith Institute.

U.S. Bureau of the Census. 1975. *Historical statistics of the United States: Colonial times to 1970*. 2 vols. Washington, D.C.: U.S. Government Printing Office.

Weber, Warren E. 1999. Balance sheets for U.S. antebellum state banks. Research Department, Federal Reserve Bank of Minneapolis. Available at http://research.mpls.frb.fed.us/research/economists/wewproj.html.

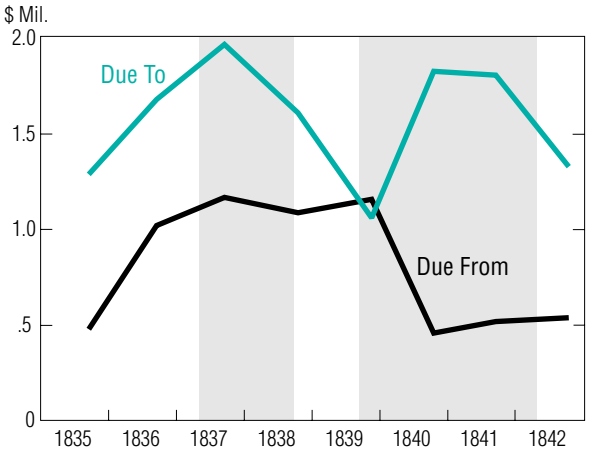
Whitney, D. R. 1878. *The Suffolk Bank*. Cambridge, Mass.: Riverside Press.

Chart 1

Suffolk's Interbank Activities

Amounts Due To Other Banks from Suffolk
and Due From Other Banks to Suffolk
During and Between Bank Suspensions*

Various Dates, 1835–42



*Shadings on Charts 1–8 indicate bank suspension periods. Massachusetts banks were not suspended during the second period.

Source: Weber 1999

Charts 2–3

Suffolk as a Major Reserve Provider Compared to . . .

Amounts Due From Other Banks for Suffolk
and Other Large Banks in Two Cities

Various Dates, 1835–42

Chart 2 . . . Large Banks in Boston . . .

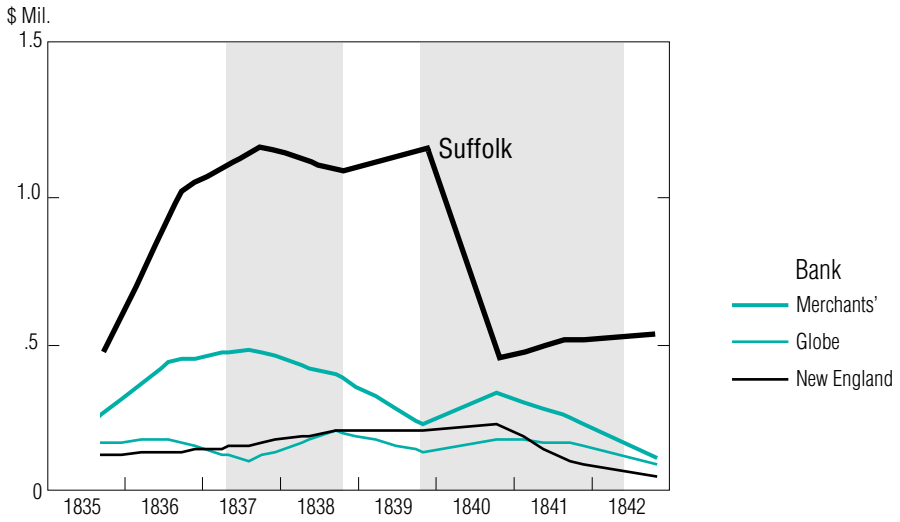
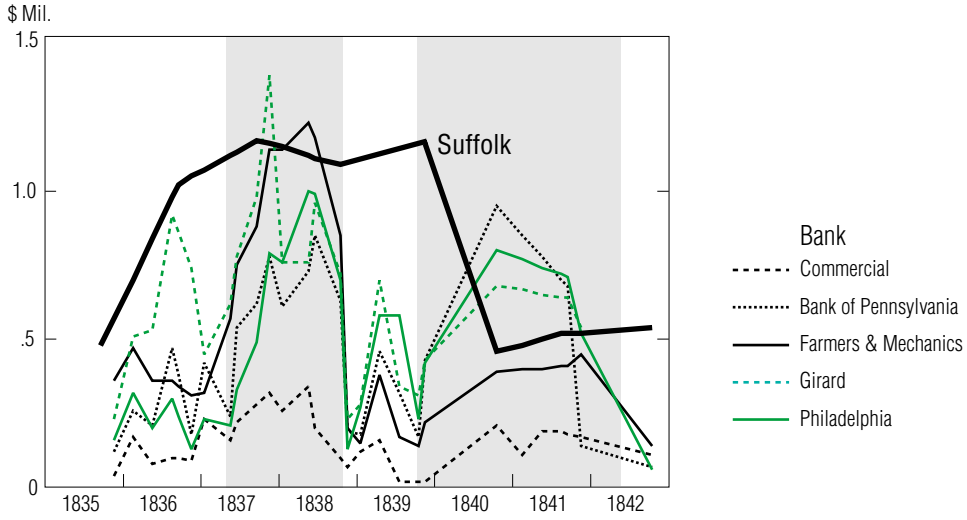


Chart 3 . . . And Large Banks in Philadelphia



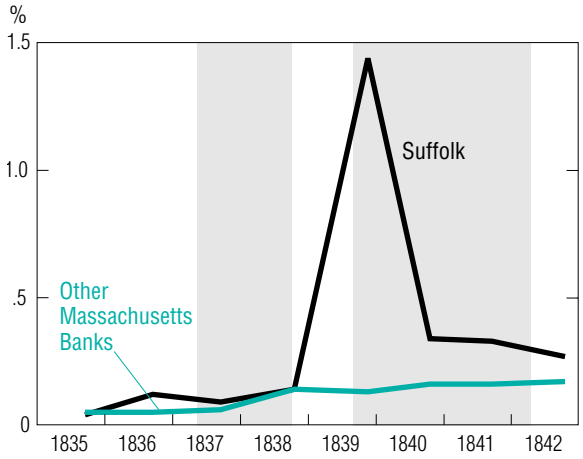
Sources: Weber 1999

Chart 4

Why Other Banks Had Confidence in Suffolk

Ratios of Specie to Net Demand Liabilities
at Suffolk and Other Massachusetts Banks

Various Dates, 1835–42



Source: Weber 1999

Charts 5–6

How Suffolk Benefited New England Banks

Notes Held and Loan Volume
at Massachusetts and Pennsylvania Banks

Various Dates, 1835–42

Chart 5 Notes of Other Banks

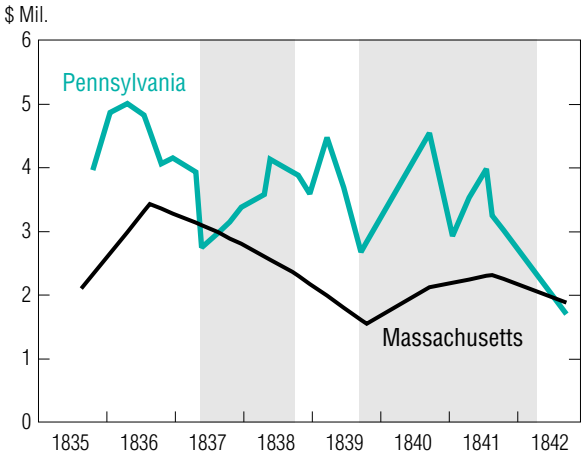
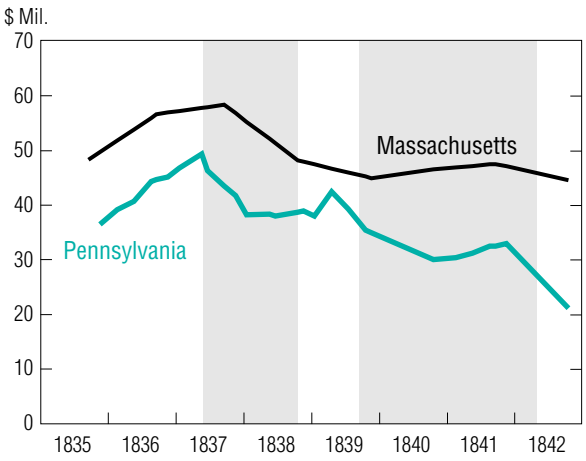


Chart 6 Loans



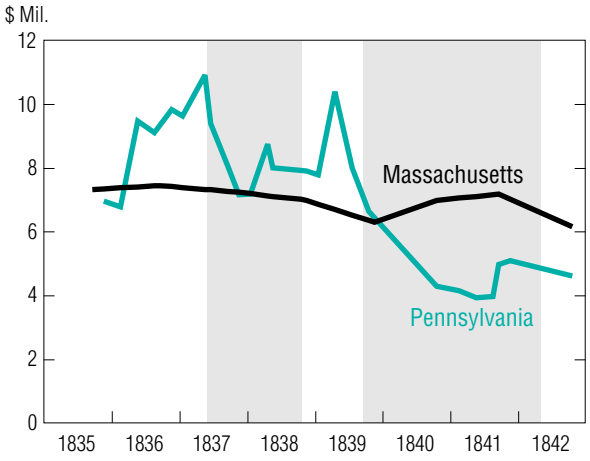
Sources: Weber 1999

Charts 7–8

Indicators of New England's Relative Economic Well-Being

Chart 7 Money Supply Growth in Massachusetts and Pennsylvania

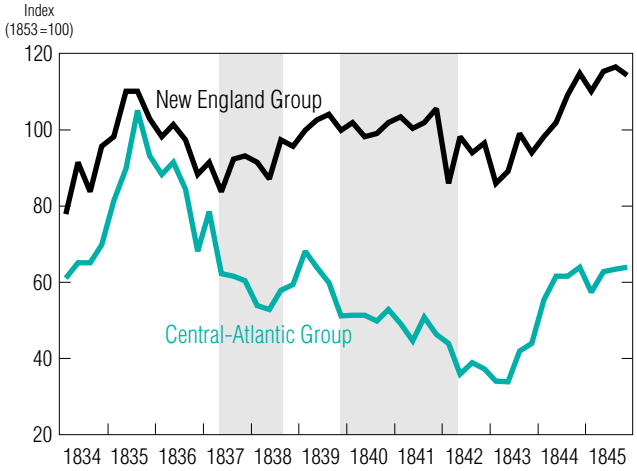
Banknotes in the Hands of the Public
Various Dates, 1835–42



Source: Weber 1999

Chart 8 Indexes of Stock Prices for Two Regional Groups of Railroads

Railroad Stock Price Indexes
Quarterly, 1834–45



Source: Smith and Cole 1935