



The Free-Banking Era: A Lesson for Today?

A volatile episode in U.S. banking history might have something to teach about current regulatory challenges — though perhaps not the lesson one might expect.

BY DANIEL SANCHES

What would happen if anyone could open a bank at will? What if you or I could hang a sign in a storefront or create a website and start attracting borrowers and depositors with competitive interest rates? What if any sort of firm, big or small, could venture into the banking business in the U.S. with no official charter required? For a time in U.S. history, entry into banking in some states was thrown wide open. The so-called free-banking era from 1837 to 1864 was also a time of numerous bank failures in those states. But exactly what lesson does this colorful yet costly period hold for us today? At a time when too-big-to-fail banks remain a concern and technology seems to point toward a freewheeling future of “cloud” lending and private electronic currency, insight into how to foster stability in the financial system is especially relevant. But as I will show, the main lesson of the free-banking era may not be the one you would think.

WHAT IS FREE BANKING?

A brief history of free banking in the U.S. After the charter of the Bank of the United States was allowed to expire in 1836, several states adopted free-banking laws. The widespread adoption of free-banking laws was part of a political movement led by Jacksonian Democrats to reduce the economic and political power of large banks in the financial centers. In the 1830s, Michigan, Georgia, and New York adopted free banking. By 1860, 15 other states had adopted free banking.¹

Economic historians largely agree that Michigan’s early experience was a complete failure and that New York’s overall experience was a solid success. In Michigan, bank liability holders suffered large losses in 1837–1838 as a

result of unsound banking practices. In contrast, losses were negligible in New York over the whole free-banking period in that state. The available historical data for the other free-banking states show various degrees of success when it comes to the stability of the banking system.

Free banking ended in 1864 when Congress passed legislation that provided bankers with strong incentives to obtain a national charter. During the debates over the National Banking Act, proponents cited the large number of failures of banks with state charters in the free-banking states and the need to establish a uniform, nationwide currency system.

Free banking didn’t mean no rules. It is important to keep in mind that free banking is not the same as *laissez-faire* banking, in which there is no government interference of any kind. Free banking simply means that no charter or permission is needed from a government body to start a bank, unlike the current *chartered banking system* in the U.S. The free-banking laws specified that a state banking authority determined the general operating rules and minimum capital requirement, but no official approval was required to start a bank.²

An important rule that states imposed on free banks was the requirement to post collateral in the form of government bonds to back their *banknotes*. Unlike modern banks, whose main liabilities are deposits, the primary liability of a typical 19th century bank, regardless of whether it was located in a free-banking state,

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was its banknotes. These notes were a promise by the bank to pay a specified amount of gold or silver currency, often called *specie*, on demand. For this reason, banknotes were widely accepted as payment outside the banking sector and circulated in much the same way that a \$5 or \$20 bill circulates today. In addition, numerous broker-dealers bought and sold banknotes for speculative purposes, which helped develop a secondary market for banknotes.

Only state and federal government bonds were eligible to be posted as collateral. A typical requirement was for the free bank to deposit with the state banking authority one dollar's worth of eligible bonds for each dollar's worth of banknotes. Most of these bonds traded on the New York Stock Exchange, which helped the state authorities determine the bonds' market values. However, in a significant departure, some states allowed free banks to value the bonds securing their notes at their *par* or face value instead of their market value. As we will see, this practice proved consequential.

Requiring banks to post collateral is very similar to capital requirements today. When a bank fails today, the capital or equity owned by the bank's stockholders must be wiped out before the FDIC or any uninsured depositors lose a cent. In this sense, bank capital acts as collateral protecting the bank's claimants. Allowing free banks to value their bond collateral at par posed the same kind of risk that arises if banks today are allowed to value their assets at book value so that their capital doesn't fall whenever the market value of the banks' assets falls. In both cases, when the market value of a bank's assets falls, depositors (or the FDIC) lose some of their protection.³

How free banks operated. To start a free bank, the owners would typically sell subscriptions — shares of stock in the bank — and use the proceeds to buy eligible government bonds to deposit with the state authority. If the bonds were approved, the state authorities would allow the bank to start issuing banknotes.

The table illustrates how a free bank would open for business. As we have seen, the first step is to deposit the minimum capital amount determined by the state authorities. Suppose that the minimum capital amount in a given state is \$50,000 and that the owners of our fictitious free bank choose to deposit exactly this amount with the state authority in the form of gold or silver currency. On the first day, on the liability side of its balance sheet, the bank has \$50,000 in capital and, on the asset side, \$50,000 in cash — that is, specie.

Now suppose that on the second day, the owners decide to use the bank's cash balance to acquire \$30,000 worth of state government bonds. Then on the third day, the owners decide to deposit the \$30,000 worth of bonds with the state authority so that they are allowed to issue banknotes. Note that simply depositing eligible bonds with the state authority does not alter the bank's balance sheet. To have any meaningful change in the balance sheet, the bank needs to put at least some of these banknotes into circulation. How can this be accomplished?

One way a free bank can put banknotes into circulation is by making loans to households and firms. We saw that, after depositing the bonds with the state authority, the bank received \$30,000 worth of banknotes at the end of the third day. Suppose that, on the fourth day, a borrower shows up at the bank and applies for a \$25,000 mortgage. If the bank management, after evaluating the borrower's creditworthiness, decides to approve the loan, then the bank can give the borrower \$25,000 in banknotes in exchange for a mortgage. As the liability side of the table shows, the bank now has \$50,000 in capital and \$25,000 in outstanding banknotes; on the asset side, it has \$20,000 in cash, \$30,000 in government bonds, and \$25,000 in outstanding loans. Its assets now total \$75,000.

In reality, a free bank would make many loans to households and firms in the form of banknotes. As borrowers

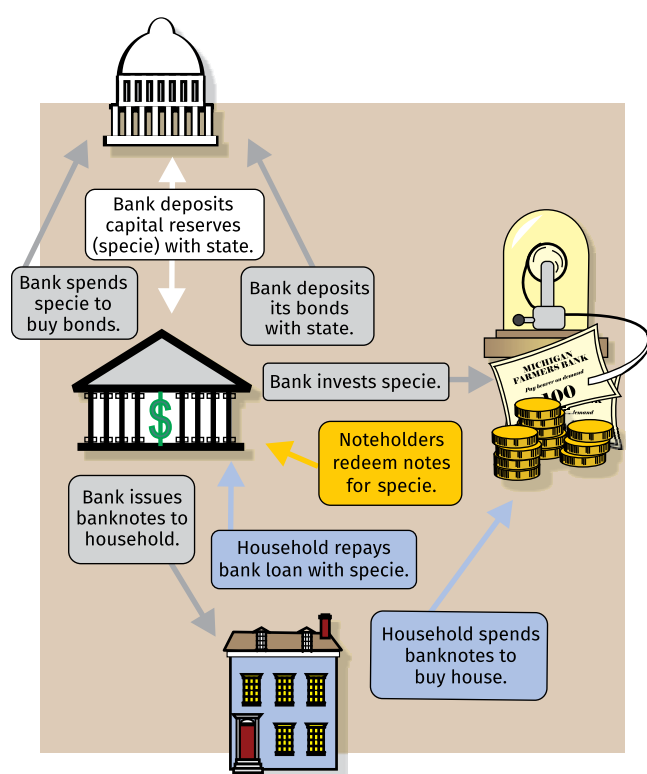
How a Free Bank Increases Its Balance Sheet

		ASSETS		LIABILITIES	
		Composition	Total value	Composition	Total value
Day 1	Deposits capital required by state.	\$50,000 cash (specie)	\$50,000	\$50,000 gold capital	\$50,000
Day 2	Buys state bonds with some of its cash.	\$20,000 cash \$30,000 bonds	\$50,000	\$50,000 gold capital	\$50,000
Day 3	Deposits bonds with state so it can issue banknotes.	\$20,000 cash \$30,000 bonds	\$50,000	\$50,000 gold capital	\$50,000
Day 4	Circulates banknotes by making loan.	\$20,000 cash \$30,000 bonds \$25,000 mortgage	\$75,000	\$50,000 gold capital \$25,000 banknotes	\$75,000

started spending these notes, they would gain circulation in the general economy. The notes of a successful bank would be widely accepted in transactions across the largest possible geographic area. That way, it would normally take a long time between the issuance of a banknote and the demand for its redemption for gold or silver, which would allow the bank to take advantage of profitable investment opportunities for a longer period.

Early redemption of banknotes could cause problems. Continuing my example, suppose that the annual interest rate on the mortgage is 10 percent and that the

Putting Banknotes into Circulation



mortgage matures in one year, when the borrower needs to pay back the interest and principal. At the end of one year, the bank receives \$27,500 from the borrower, paying off the mortgage. If the \$25,000 worth of banknotes remains in circulation until the mortgage is repaid in full, then the bank has more cash than the value of the banknotes it put into circulation to finance the mortgage. One option for the bank is to hold \$25,000 in cash reserves so it can retire outstanding banknotes when they are eventually presented for redemption. In this case, the bank's profit is \$2,500.

But now suppose that, for some reason, note-holders demand the redemption of the \$25,000 worth of banknotes

before the mortgage is repaid in full. Recall that the bank has only \$20,000 in cash reserves — not enough to make good on the banknotes. One option is to borrow \$5,000 from another bank to meet the note-holders' demand. Let us assume that the bank manages to secure an interbank loan that must be repaid on the same day the mortgage matures. On the maturity date, the bank receives \$27,500 from the borrower and is able to replenish its cash reserves of \$20,000. The bank also needs to repay the \$5,000 interbank loan plus interest. As a result, its profit is less than \$2,500 because the banknotes put into circulation to finance the mortgage were presented for redemption before the mortgage was retired and the bank had to find an alternative source of financing. This example shows that it is best for a free bank to keep its notes in circulation for as long as possible.

A critical assumption in the previous example was that the bank had to keep the promise of paying out one dollar in cash for each dollar's worth of banknotes presented for redemption. An important institutional characteristic of the free-banking era was that state authorities required banks to redeem banknotes on demand at par value. As we will see, redemption at par made free banks subject to runs for the same reason that today's chartered commercial banks are inherently fragile.

WHY DID SO MANY FREE BANKS FAIL?

Was it the consequence of unrestricted entry, or something else? A free bank's reserves of gold and silver were typically small compared with the par value of its notes in circulation. Because their gold and silver reserves paid no interest, banks sought to keep only enough cash in their vaults to meet that day's expected redemptions. But because free banks were required to pay the holders of their banknotes gold or silver on demand at par value, they were subject to runs if for some reason an unusually large number of note-holders decided to redeem their notes at the same time.

Normally, one would expect only a small fraction of outstanding banknotes to return to the issuing bank for redemption within a few days. But should the public suddenly suspect that the bank is in financial difficulty because, for instance, it made too many bad loans, an unusually large number of note-holders might simultaneously choose to redeem their notes, causing a *bank run*. Sometimes, bank runs start not necessarily because people believe that the bank is insolvent but simply because each note-holder believes that other note-holders will choose to redeem their notes today and everyone fears being last in line and coming away

empty-handed. Alternatively, a run may be triggered when depositors become worried about the underlying quality of their banks' assets.⁴

Going back to my previous example, assume now that the bank cannot find a financial institution willing to lend it \$5,000 and is unable to retire, at par value, all the banknotes presented for redemption. In this case, we say that the bank is *illiquid*, which simply means that the value of its outstanding banknotes exceeds the value of its cash reserves. The requirement of redemption at par value automatically converted any illiquid bank that did not manage to secure a loan or quickly sell other assets for cash into an insolvent bank.

In reality, if a free bank did not have enough cash reserves to retire outstanding notes presented for redemption, the state banking authority would intervene to *unwind* the bank. That is, the government bonds deposited as collateral would be sold and the proceeds would be used to pay note-holders. In this process, note-holders would receive the lesser of the proceeds or the notes' par value.

It is important to keep in mind that note-holders had no reason to immediately redeem notes that they acquired in transactions as long as they viewed the bank as healthy. After all, banknotes were useful payment instruments and could be readily exchanged for gold or silver in relatively liquid secondary markets. Because it was possible to quickly determine the market value of most banknotes, they could be easily used as a means of payment in transactions in lieu of specie.⁵ In addition, the existence of a liquid secondary market for banknotes limited note-holders' incentive to redeem notes.

Furthermore, the continuous market pricing of a bank's notes tends to impose some discipline on a bank's risk-taking. If a bank starts making too many risky loans, investors will believe that such a bank is more likely to become insolvent and so they will discount its banknotes in the secondary market to reflect this revised perception, increasing the bank's cost of external finance. Knowing that any perception of unsound banking practices will be reflected in the market price of banknotes, a free bank has an incentive to limit risk-taking.

These arguments provide good reasons why banknotes would tend not to be immediately redeemed. Because banknotes are useful payment instruments and the continuous market pricing of a bank's notes imposes discipline on risk-taking, one would expect a stable banking system under free-banking laws. But the historical data tell us a different story. So what explains the unusual number of bank failures in the free-banking states?

Was wildcat banking the main cause of bank failures?

One hypothesis posed by Hugh Rockoff is that free banking made it possible for bankers to engage in a particularly egregious form of risk-taking known as *wildcat banking*. In a typical scheme, banks were created to deliberately fail. Because some states allowed free banks to value the bonds securing their banknotes at par value even when these bonds were trading at a discount, a wildcat banker could deposit depreciated bonds with the state authority and issue banknotes at the higher face value. Once the notes began circulating, the wildcat banker would close the bank's doors and leave town as soon as possible, pocketing the short-term profit.

Let me explain how wildcat banking was profitable under par valuation of bonds. Suppose that the market value of an eligible state bond is less than its face value, which can occur if investors believe that the state might default. For instance, assume that an eligible state bond with a face value of \$100 is traded on the secondary market at \$90. In this case, a wildcat bank can raise \$90 from stockholders to acquire state bonds at the market price. Because these bonds are valued at their face value when deposited as reserves with the state banking authority, the wildcat bank is allowed to issue \$100 worth of banknotes. Then, the bank can lend out \$100 in banknotes, thereby acquiring \$100 worth of assets and sell those assets for cash, absconding with the proceeds. Note-holders will eventually show up at the bank to redeem those notes, especially after hearing the news that the bank owners have disappeared. But the state authority will be able to sell the state bonds for only \$90 and therefore will be able to pay only 90 cents on the dollar for each note, resulting in a 10 percent loss for the note-holders, while the owners of the bank make off with a profit.

The argument that wildcat banking was the main cause of bank failures was based on two observations. First, free banks that failed had typically been in existence for less than a year. Second, failures among free banks were more common in states that permitted par valuation.

Free entry might increase incentives for risk-taking and fraud. As we will see, later study identified a different root cause for the widespread failures. Yet, the notion that free entry into the banking business would encourage risk-taking remains a widely — though not universally — held view among economists. The *franchise value* hypothesis holds that the threat of losing a stream of profits (the bank's franchise value) in the event of failure puts a strong damper on risk-taking.

According to this view, a concentrated banking system — that is, a system with a small number of large banks — tends to be more stable than a competitive one. Proponents

of the franchise value hypothesis argue that, holding other factors constant, excessive competition in the banking system tends to reduce the present value of a bank's stream of profits. If several lenders are willing to offer the same kind of loan to a creditworthy firm or household, it is very likely that the borrower will get a lower interest rate on the loan.

Increased competition due to free entry made wildcat banking more attractive in states that allowed par valuation of bonds when the market prices of bonds were significantly below the par value. As we have seen, when the bond's market price is below the par value, a banker can make a substantial short-run profit by engaging in wildcat banking. By doing so, the banker gives up the stream of future profits. But if the present value of this stream of future profits is small as a consequence of increased competition, it is more likely that the banker will prefer the short-run profit associated with wildcat banking. Thus, intense competition leads to a smaller present value of a free bank's stream of profits, making wildcat banking a more attractive choice.

If there are few banks in the banking system because of strict rules to obtain a bank charter, then banks benefit from reduced competition by being able to charge higher interest rates to borrowers and pay lower interest rates to bank liability holders. In this case, the present value of the stream of profits is relatively large, so there is no reason for a bank to take on excessive risk. On the contrary, banks will tend to be more conservative to avoid insolvency and preserve the franchise value stemming from restricted entry.⁶

Under a concentrated banking system, wildcat banking would have been less attractive in states that allowed par valuation of bonds. Because the present value of the stream of future profits is larger under a concentrated banking system, wildcat banking pays off only if there is a very large difference between a bond's par and market values.

Falling asset prices led to bank failures. In their 1984 article, Arthur Rolnick and Warren Weber provide evidence that the market value of the state bonds used as collateral for banknotes underwent prolonged periods of decline, reflecting, among other things, the risk of default by the states that issued them. Their hypothesis was that it was not wildcat banking but declines in bond prices that led to bank failures. They argued that if wildcat banking had been responsible for the large number of free bank failures, then these failures would have occurred almost exclusively when state bonds were selling below par and in those states in which banks were permitted to issue banknotes based on the book value of their bonds (the two conditions that make wildcat banking profitable).

Among four free-banking states — Indiana, New York, Minnesota, and Wisconsin — only in Minnesota were the failures consistent with the wildcat hypothesis. If the failures instead had been due to falling bond prices, then the greatest number would have occurred during periods of falling bond prices, while few, if any, would have occurred when bond prices were stable or rising. Among the four states, 79 percent of the failures were consistent with the falling bond price hypothesis.

Importantly, the study demonstrated that the failures in the free-banking states that were consistent with the falling bond price hypothesis were *inconsistent* with the wildcat hypothesis. In the case of Indiana, for example, Rolnick and Weber show that bank failures were concentrated in January 1855. From 1852 to August 1854, state bond prices remained very close to par, making wildcat banking unprofitable during this period. In 1854, Indiana bond prices fell about 26 percent between August and December. This substantial fall in bond prices within a short period, combined with the fact that most failures occurred shortly after bond prices fell in January 1855, certainly confirms the falling bond price hypothesis. What makes this episode inconsistent with the wildcat hypothesis is the fact that all the banks that failed in January 1855 had been established between 1852 and 1854, a period in which wildcat banking was not profitable. Similar evidence is provided for New York and Wisconsin free banks.

Because risky bonds backed banknotes that were callable on demand at par value, a typical free bank found it difficult to maintain the convertibility of its banknotes at par value, which was, according to Rolnick and Weber, the main cause of bank failures. Free banks failed because of substantial declines during tough economic times in the market value of banks' portfolios. The collateral restriction imposed by the state banking authorities artificially increased free banks' exposure to the risk of default by states.

CONCLUSIONS

This episode in American history suggests that the problems free banks faced were not very different from those encountered by banks in other periods and that the regulatory issues were also not so different. What can we learn from the free-banking episode?

First of all, it is important to be clear about what we *haven't* learned. A close analysis of the free-banking era does not support the view that egregious risk-taking and fraud were the primary cause of bank failures. Thus, this historical episode does not support the contention that freer entry

necessarily leads to instability. The main cause of the large number of bank failures under free banking was collateral restrictions that left banks at the mercy of the ups and downs of state finances and the resulting volatility of state bond values. If state bonds had truly been riskless, free banks' note-holders would have been fully protected and the costs of free bank failures would have been much lower. But like risky sovereign bonds under the Basel II capital rules, risky state bonds were treated by banking regulators as if they were essentially riskless. One lesson for regulators today is that tying bank safety to the presumed risklessness of a particular

asset class is a risky business.

Since the 2007–2008 financial crisis, regulators worldwide have rethought their capital requirements for banks and the collateral requirements for a wide range of transactions in the shadow banking systems — most of which are carried out through banks. Regulators now generally believe that more capital for banks — for example, higher leverage requirements — and a higher degree of collateralization for many trading activities are the best guarantee of stability.⁷ ■

NOTES

¹ Charles Calomiris and Stephen Haber provide an interesting analysis of the political forces that shaped the U.S. banking system in the 19th century.

² It is important to emphasize that many influential economic historians view the U.S. free-banking experience as fundamentally different from the free-banking systems that developed in other parts of the English-speaking world. See, for instance, Lawrence White's book and his articles with George Selgin.

³ Under current regulatory accounting rules, some assets are carried at their book values and some assets are carried at their market values. See Ronel Elul's article "The Promise and Challenges of Bank Capital Reform," which discusses basing capital regulation on book values.

⁴ In their 1991 article, Charles Calomiris and Gary Gorton conclude that most bank runs historically were caused by bad economic news that led depositors to worry about losses in their banks' portfolios. For more on the economics of bank runs, see my 2014 *Business Review* article, "Shadow Banking and the Crisis of 2007–08."

⁵ Trade publications known as banknote reporters specialized in reporting the market value of banknotes in regional markets.

⁶ The presence of market power in the banking industry implies that market interest rates will be higher and the number of loans will be lower than if banking operated in a perfectly competitive environment, resulting in a trade-off between efficiency and safety.

⁷ Leverage requirements are capital requirements that do not vary with the risks of a bank's assets. High leverage requirements are one way to address the inherent difficulties of assessing the risks of banks' assets. Also see Michael Slonkosky's account of the new regulations governing derivatives transactions. An overriding goal of all these regulations is to impose higher collateral requirements on the parties to these transactions.

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