

1997

An International Survey of Free Banking Periods: US, California, France, Australia, Switzerland, and Scotland

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Recommended Citation

Doi, Lynne Pierson, and David Cassell. "An International Survey of Free Banking Periods: US, California, France, Australia, Switzerland, and Scotland." *Essays in Economic and Business History* 15 (1997): 309-321.

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Comments

This article was originally published in *Essays in Economic and Business History*, volume 15, in 1997.

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**AN INTERNATIONAL SURVEY OF FREE BANKING PERIODS:
U.S., CALIFORNIA, FRANCE, AUSTRALIA, SWITZERLAND,
AND SCOTLAND**

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ABSTRACT

Unregulated banking eras in the U.S. have been used to test various theories about bank performance and the effects of regulation of the banking system. Episodes of free banking in other countries, especially Scotland, have also been used as laboratories to test these theories. This paper reviews the U.S., California, France, Australia, Switzerland, and Scotland to compare their periods of free banking as to the amount of freedom allowed to the banks in reserve requirements, note issue, capital or other entry requirements, and presence of a central bank.

Money, Credit And Free Banking

With the generally acknowledged importance of money and credit to the performance of the economy, regulation of the financial system may seem to ensure a stable economy, and since banks are the conduit to the economy for both money and credit, governments at all levels have sought control of the banking system. In spite of the prevalence of regulation, however, some economists have developed the theory that banks produce a steadier flow of money and credit without any regulation at all. George Selgin, in *The Theory of Free Banking*, and Lawrence White, in *Free Banking in Britain: Theory, Experience and Debate, 1800-1845*, described a free banking system where banks issue distinctive notes and deposit accounts backed by guarantees to pay gold or silver on demand.¹ This system of "free banking" would be governed only by market forces. Banks would compete on the basis of acceptability of the payment mechanism, and on customer service exemplified by longer hours and more convenient locations. *Free Banking: Theory, History, and a Laissez-Faire Model*, by Larry J. Sechrest, suggested that this type of free banking, combined with a system of fractional gold reserves, could provide a system that would satisfy the need for a stable flow of money and credit. He contended that such a system would prevent money from being the cause of economic disturbances, provide a stable economic environment, and offset major disturbances that arise from nonmonetary sources.²

The most important features of free banking are the absence of any central monetary authority and the issuance of notes, as well as deposit

accounts by individual private banks. Also it is important to have free entry into the industry and few restrictions on bank operations, particularly on note issue. In some cases, reserve requirements for deposits and minimum capital requirements are restrictions that are used in modern times to ensure bank safety, but these may not eliminate a system from qualifying as a free banking system.

Few examples of a free banking situation without any restrictions have occurred in modern history. While the term "free banking" has been often used to describe the situation in the United States from 1837 to 1863, in this context the term denoted a situation where banks could be chartered simply by meeting certain requirements, but were, in most states, not free banking situations as defined by Secrest. In fact, this period, by its lack of national bank regulation, spawned a variety of banking regulatory environments in the various states. Hugh Rockoff and others have thoroughly studied the results of the freedom of this period.³

Lawrence White has done some notable work on the Scottish banking system as an example of a true free banking environment. There were, in Scotland from 1765 to 1844, only a few regulations governing bank behavior. The first was unlimited liability for the bank owners. The second was the restriction on notes of value of less than one pound sterling and the requirement that banks redeem notes for specie immediately when due.⁴ Sechrest adds the possibility that interest rate ceilings were an important restriction, that unlimited liability was a barrier to entry, and that ultimately the Scottish banking system was too closely tied to the Bank of England to respond freely to market forces.

In addition to the United States from 1837 to 1863 and Scotland from 1765 to 1844, there are several other situations that compare favorably to the free banking model. Within the United States, free banking periods in Illinois and California have been studied, California by Lynne Doti and Illinois with some very preliminary work by Andrew Econopoulos.⁵ Other than the United States and Scotland, Australia had a very long free banking period; France experienced free banking during the time between the French revolution and Napoleon; and, Switzerland's autonomous cantons had varied, but largely unregulated banking in the 1800s. The current paper surveys the nature of these episodes of free banking to compare them with the free banking model. Each case describes a situation where there was no central bank, and only limited rules governing note issue, and no capital or other entry requirements.

Free Banking Periods

United States

From 1816 to 1836, a strong central bank, the Bank of the United States, existed in America. Heated opposition from President Andrew Jackson led to the demise of the Bank. His mood seemed to match the nation's and bank regulation was left to individual states from 1836 to 1864. The states varied in their attitude toward limiting bank power. Some states enthusiastically banned banks altogether. A more sophisticated approach was common: Many states allowed banks to operate with a specified minimum capital that would be invested in state debt. States encouraged banking by allowing notes, in an amount limited by the amount of the state bonds held, to be issued by the bank to make loans. Bank assets would then include the low interest state bonds and higher-interest loans to businesses or individuals. The states benefited by lower interest on their debt. Some states required that the banks keep reserves against outstanding notes or deposits either in the form of notes or specie. The bank notes circulated, often below par value, and created a wide variety of currency.

The United States federal government firmly rejected free banking with the National Banking Act of 1863, which created National Banks. National Banks had minimum capital requirements, note issue restricted by the bank's holdings of government bonds, limits on their lending, and specific directions about diversification of their asset portfolio. They were not allowed to lend on real estate. The National Bank capital requirement was \$50,000 until 1900, when it decreased to \$25,000 for some rural areas. Note issue of National Banks was limited by the requirement that the issue could not exceed ninety percent of the par value of bonds deposited with the U.S. Treasury, or the capital stock of the bank. A federal tax of ten percent also discouraged the issue of state bank notes. The prohibition of loans on real estate by national banks formed one of the most characteristic differences between state and national banks, although there are indications that national banks avoided the impact of this restriction. No national bank could loan more than an amount equal to ten percent of its capital stock to any one borrower. Reserve requirements were another method of restricting banking activity. The national banks required between fifteen and twenty-five percent reserves, depending on location. National banks were required to supply reports on their condition annually and were examined by the Comptroller of the Currency.

While the National Banking Act created a regulated set of banks, it did not touch the separate system of state banks. State governments were still free to charter banks and regulate these banks under their own laws, but only a few

states allowed enough freedom to qualify as free banking situations. While Illinois was identified by one author as a free banking situation, to date California is the only state which has been thoroughly researched which clearly qualifies as a free banking situation.

California

California from 1849 to 1905 presents a case study of a geographically large, economically diverse, rapidly growing state, where there existed almost no regulation of the banking or financial system. The gold rush of 1848 established gold, traded by weight, as the currency for Californians. In spite of the preference for gold, banks opened almost immediately in San Francisco and in Sacramento. Most of the early bankers were exchange dealers, offering certificates of deposit or other types of notes in return for gold. The early banks also offered loans and "borrowed" gold from customers. Notes issued by early banks were denominated for as little as 25 cents: the standard price of a shot of whisky, equivalent to a pinch of gold dust.

The discovery of gold was almost coincident with the cession of California to the United States, before any legal system or government was established, so laws governing the activities of financial institutions were not the result of careful thought and experience. The first legislation relating to banking, in fact, was the state constitution.

Incorporation of banks was the first hotly debated issue at the constitutional convention of 1849. The majority of the delegates thought banking activities should be limited to private individuals.⁶ The California Constitution, written in haste, was based on the state constitution of Iowa and New York, with concessions to the treaty with Mexico. The part relating to bank activities in the version submitted to the convention was similar to the wording in New York's constitution in prohibiting special legislative charters to banks.⁷ There was a very strong group, however, which touted the dangers of allowing banks at all. The final version of the constitution outlawed paper currency and businesses incorporated as banks, and maintained individual liability for corporate debt. It appears to have done little to discourage banking.

After a rash of bank failures in 1855, a law was passed to strengthen the injunction against issuing currency. The first offense was a misdemeanor bringing a maximum sentence of three months in jail plus a two thousand dollar fine. The second offense became a felony and could bring up to five years imprisonment. Nonetheless, banking continued to develop, and numerous documents exist from the period that are indistinguishable from bank notes. In 1857, for example, the editor of the *Evening Bulletin* complained that a local restaurant accepted a note on the month-old Brannan Bank "without

question."⁸

Incorporation, which limited liability to the bank owners, was the most controversial aspect of allowing banks at all. At least one San Francisco bank claims to have incorporated under the general incorporation laws in 1857,⁹ and Ira Cross agrees that there were several incorporated banks by 1860.¹⁰ After 1862, banks freely incorporated under either the general incorporation laws or the 1862 savings bank incorporation law.

The Banking Act of March 1878, was the next attempt to regulate bankers. This act created a Board of Bank Commissioners, required all banks to pay a license fee, file reports, and be examined twice yearly. In 1895, the state required that all banking corporations have a minimum capital of \$25,000, although it did not have to be in the form of cash. This was the first attempt to set requirements to open a bank.

The 1878 California Banking Act was suspended in 1903 and quickly replaced with a very similar law, which was amended extensively in 1905. The 1905 act initiated a reserve requirement for commercial banks, made bank examination optional for the commissioners, required licenses of private bankers, allowed the state to deposit funds in banks, and instituted capital requirements of \$25,000 to \$200,000, dependent on city size. This last provision was declared unconstitutional and was replaced in 1907 with a statute requiring a minimum of \$25,000 capital or ten percent of total liabilities up to \$100,000 maximum.¹¹

In 1909, the banking law was completely rewritten and the Board of Bank Commissioners was replaced with a State Superintendent of Banks. The new law increased capital requirements and made them partially dependent upon location. A reserve requirement was initiated and a large number of detailed requirements concerning the asset portfolio were written.¹² With this law, unregulated banking had become a part of California's history.

France

The brief period of unregulated banking experienced in France started during the French Revolution, and lasted until 1803. Beginning operations in 1776, the Caisse d'Escompte was the first corporate bank opened in France. The bank's founder, Jacques Turgot, believed it was the first step in the creation of a free banking system. Government restrictions on the formation of corporations, however, prevented competition in the issuance of bank notes, and as a result, the Caisse d'Escompte quickly grew into a monopoly resembling a central bank.¹³

On August 4, 1789, the privileges of the Caisse d'Escompte were repealed by the Constitutional National Assembly, and in 1791 a law was passed advocating freedom of work and domestic trade. With restrictions on

entry now lifted, France saw a brief period of free banking that lasted until 1792, when a decree was passed prohibiting the issuance of bank notes or bills of exchange. Furthermore, in 1794 another law was imposed that banned all business organizations, including banking institutions.¹⁴ In 1795, with the fall of the Robespierre dictatorship, all restrictions on banking were soon removed, following the recommendation of the Finance Commission of the Conseil des Cinq Cents to repeal the laws of 1792-1794. The repeal allowed "the establishment of free bank ... which would serve to expand our commercial relations, to rejuvenate credit, to increase the progress of trade, agriculture and arts, and which would become ... the source of national prosperity."¹⁵

Following the abolition of banking regulations, which represents the beginning of the second free banking period, Charles Coquelin, cited in "Free Banking in France (1796 - 1803)," by Philippe Nataf,¹⁶ noticed the "spontaneous" emergence of corporations that discounted and issued bank notes. He comments that "this proves ... that banks would have spread in France as easily as elsewhere, if obstacles had not been put intentionally to bar their progress."

During the years of bank deregulation, there was no central bank, and no capital requirements or reserve requirements were imposed on the banking institutions by the government. There were no requirements to open a bank, since the governmental restrictions requiring all corporations to obtain authorization to begin their activities had been lifted in 1792. Finally, no rules existed regarding the issuance of bank notes.

On November 10, 1799, Napoleon Bonaparte came into power. He immediately declared a dictatorship and, desiring "his own" bank, began to impose revision in the banking system.¹⁷ Founded by Napoleon in January 1800, the Bank of France was created as an aid to commerce and the "pillar of state finance."¹⁸ Established as a private bank, the Bank of France soon received governmental support, as it was unable to sell all of its shares of stock. Faced with serious competition, the state soon stepped in, authorizing the Bank of France the use of brute force to close down competitors.¹⁹

On September 24, 1803, a law was passed granting the Bank of France the exclusive privilege to issue bank notes in Paris for fifteen years. The legislation of 1803 established the Bank of France as a central bank, and ended the free banking period in France. Furthermore, the exclusive privileges of note issue were extended 25 years following a law passed in 1806. Phillipe Nataf commented that this legislation added to "financial instability" and imposed "administrative obstacles [that] prevented the creation of new banks for almost six decades."²⁰

Switzerland

The roots of free banking in Switzerland can be found in the 1830s and 1840s, when liberal revolutions led to the deregulation of the financial systems of several Swiss cantons. New banks were chartered and the issue of paper money was free from regulation. In 1848 a brief civil war resulted in the transformation of Switzerland into a federal republic. Under the new federal government, the barriers that had restricted the free movement of capital between cantons were removed, and a new unified currency, the Swiss franc, was introduced.²¹ (However, even with the new federal government, the individual cantons still had jurisdiction over the issuance of notes.)

Throughout the free banking period, Switzerland saw a steady and apparently stable increase in the number of banks issuing bank notes. Three kinds of banks existed during this period: incorporated commercial banks, cantonal banks, and local savings banks.²² Although the cantonal banks were run by the cantonal government central banks, they did not take on the role of a central bank. Because the Federal Constitution of 1848 had removed cantonal exchange barriers, and no legal tender laws were established by the new federal government, the right to circulate paper currency was not solely granted to the cantonal banks, as it is with modern central banks. Various currencies were freely circulated even within cantons where the only note issuing bank was the cantonal bank.²³

During the free banking period, there were few government restrictions. Although there were no reserve or capital requirements legislated by the cantonal governments, the private banks often included specified reserve and capital requirements in their articles of association to reassure the public.²⁴ Starting a bank required a charter, but it must have been easily obtained as these years saw a steady increase in the number of note issuing banks. The issue of bank notes was free from government interference. Banks accepted each others' notes either at par or at a predetermined discount. The cantonal banks often had an advantage, however, as their notes, guaranteed by the cantonal government, were accepted at par value for tax payments and other transactions involving the cantonal government. Despite the cantonal privileges, private banks continued to engage in the practice of note issue. Ernst Weber noted that "the poor performance of the cantonal banks suggests that in a competitive monetary system government banks do not have a comparative advantage in issuing paper money."²⁵

The laissez-faire policy which had been adopted by the federal government had led to the rapid restructuring and industrialization of the Swiss economy. As a backlash, during the 1860s and 1870s, the so-called "democratic movement" came about, calling for economic and social regulation. The democratic cantons established cantonal banks and imposed

regulations on the issue of bank notes, and several cantons imposed a tax of one per cent per annum on the circulation of private notes.²⁶

In 1874, the federal constitution was revised, granting the federal government the power to regulate the banking industry. The revised constitution provided the foundation for regulations that were imposed under the Federal Banking Law of 1881, which ended the free banking period. Among other restrictions imposed by the Federal Banking Law, reserve requirements were set at 40 percent of note circulation and capital had to amount to no less than 33 percent of note circulation. Banks were required to accept each other's notes at par, and new standardized bank notes were introduced by the federal government. A central bank was authorized in 1891.²⁷

Australia

In 1788 the first colony was founded in Australia, but no provisions were established with respect to money and banking. This marks the beginning of the period of unregulated banking in Australia, which lasted until the early 1900s. This period saw the expansion of the banking industry in which there were a number of large banks engaged in aggressive competition. In 1817 the Bank of New South Wales was the first bank started, and it was followed by many others in the 1820s. In 1835, the bank of Australasia was the first bank to receive a charter, while the late 1830s witnessed a number of colonial bank formations. The 1850s through 1860s was a period of rapid growth and expansion of savings banks: The number of branches in Australia increased from 24 in 1850 to 197 in two decades. Between 1851 and 1861, note issue increased over 700 percent and deposits more than quadrupled. Expansion of branch banking continued during the 1870s and 1880s.²⁸

During the free banking period, banks operated under limited restrictions. As colonial banks, they were subject to the English law that required all banks to be partnerships comprised of no more than six partners, each bearing unlimited liability for the bank's debt. Furthermore, banks were not allowed to issue notes with a denomination of less than one pound. Banks were not bound by a reserve requirement, and there was no central bank controlling other banks.

The British Colonial Bank Regulations imposed in 1840 required that all bank notes be payable upon demand, limited shareholders' liability, prohibited banks from lending on land, and mandated that banks maintain relevant statistics to be submitted to regulators on a regular basis. In 1846 the Bank Regulations were revised, limiting note issue to the amount of the bank's paid in capital. Although the legislation of 1846 imposed a capital requirement, these restrictions were not taken seriously.²⁹ Note and

indebtedness restrictions were also seldom considered binding restrictions. There were no regulations regarding the formation of a bank, however institutions that obtained a charter were the only banks that were granted limited liability until the British Act of 1862, which extended limited liability to unchartered banks.³⁰

In 1856 the colonies in Australia became self-governing, and therefore each was able to establish its own banking laws. As a result, none of the regulations was in practice, a serious limitation on a bank's freedom. The only requirement that survived was the requirement to make reports. From 1863 on, there were gradual amendments to the regulations designed to remove the limitations on the shareholders' liability.³¹

After a major land boom in Australia during the 1880s, the 1890s witnessed numerous bank failures as the economy slipped into depression. As a result of the bank crisis during the 1890s, political parties began to believe that the state should take control of the banking industry. The Commonwealth Government was established in 1901, and the Commonwealth constitution granted the Commonwealth jurisdiction over the banking industry, thus ending the free banking period. In 1910 two additional acts were passed, placing further restrictions on banks. The Australian Bank Notes Act granted the right of note issue to the Commonwealth Treasurer, and the Bank Notes Tax Act imposed a 10 percent tax on notes that were not issued by the Commonwealth bank. These laws were the first in a series over the following decades that established the role of the Commonwealth Bank as that of a central bank. An official central bank was not established, however, until 1959 with the creation of the Reserve Bank of Australia.³²

Scotland

In 1695 the Scottish Parliament established the Bank of Scotland, providing the bank with a legal monopoly on banking and granting it the exclusive rights to note issue for twenty-one years. The Bank of Scotland was not, however, a state institution, as the act which had created the bank prohibited its lending to the government, and it was not subject to government regulation. In 1716 the exclusive privileges given to the bank in 1695 expired and were not renewed, thus marking the beginning of the free banking experience in Scotland.

The following decades saw the growth in the banking industry with the appearance of new competing banks. The Royal Bank of Scotland was chartered in 1727 as the first rival to the Bank of Scotland. Its opening was followed by number of new non-issuing private banking houses. In the late 1750s and early 1960s, the banking industry saw an increase in small, private banks, as well as the entrance of several provincial banking companies. The

growth and expansion of the banking industry "continued apace" during the late 1760s: "The total number of Scottish banks (both issuing and nonissuing) having risen from five in 1740 to fourteen in 1750, to twenty-three in 1760, and to twenty-seven in 1765, reached thirty-two in 1769," according to White.³³ During the 1770s and several decades thereafter, the industry continued to expand, as new provincial banks opened throughout Scotland. By 1826, there existed 35 different banks, many of which contained a number of branches.³⁴

During the years of deregulation, the competition between the public banks, the large joint-stock banks, and the provincial banking companies was vigorous. The government of Scotland had no central bank, and, according to White, imposed virtually no political regulation on the banking industry. There is no evidence that banks were subject to reserve or capital requirements, and while there were no requirements to open a bank, banks that obtained a charter from parliament were able to enjoy limited liability on their debt. Entry into the banking industry was completely free and the right to issue notes was universal.

During the 1730s, banks began the practice of issuing notes containing an "option clause." Such notes promised the holder either one pound sterling on demand, or at the option of the directors, one pound and sixpence sterling at the end of six months after the day of demand. In 1765, however, the government in London intervened, banning the use of option clauses and prohibiting the issue of notes of denomination less than one pound. Despite the regulations imposed by the act of 1765, the right of note issue remained universal, and Scotland was left with free banking.³⁵

The end of the free banking period in Scotland was brought about by the Peel's Act of 1844 and the Scottish Bank Act of 1845. The Act of 1844 prohibited new banks throughout the United Kingdom from entering into the note-issuing business, and for all existing banks in England and Wales, limitations on note circulation were established. The Bank of England was granted authorization to exceed its limit, provided it met a 100 percent marginal specie reserve requirement.³⁶ Under the legislation of the subsequent Scottish Bank Act of 1845, an existing Scottish Bank (entry having been sealed off already by the 1844 act) could, like the Bank of England, exceed its authorized circulation by meeting a 100 percent marginal specie reserve requirement. White noted that after the end of unregulated banking in Scotland in 1845, the number of native Scottish banks has declined steadily.³⁷

Summary And Conclusion

This paper is intended to review as many as possible of the cases where banking was unregulated. The six situations reviewed compare favorably to

the model of free banking, where note restriction is limited only by market forces, there is no central bank control of other banks, and there are few entry restrictions and no reserve requirements. The least "free" system seems to be the U.S. free banking period, when although there were few federal restrictions, most states limited banking, often severely. Among the states, Illinois and California have been identified as free banking situations, although the research on Illinois was too limited to warrant inclusion here. California in the second half of the 19th century was an uninhibited banking environment, as was 19th century Australia, late 18th to mid-19th century Scotland, most of the cantons of Switzerland in the 1830s and 1840s, and France for a brief period from 1789 to 1803. Australia and Scotland may have been influenced somewhat by the Bank of England and some modest restrictions on issue of notes. It is hoped that this survey will be the basis for further analysis of the effect of regulation on each of these countries as data on the banks and on the economies of these countries become available.

FREE BANKING PERIODS

(no Central Bank, no Reserve Requirement, no Capital Requirement)

Geographic Area	Years	Restrictions	
		Limited Liability for owners	Limits on note issue
United States	1834-1864	a few states allowed	many states required bonds to back notes
California	1849-1905	allowed incorporation after 1862	no
France	1789-1792	no	no
	1795-1803	no	no
Switzerland	1848-1874	allowed incorporation	private and government banks both issued notes
Australia	1788-1901	no	no notes less than 1 pound
Scotland	1716-1845	no	no notes less than 1 pound after 1765

Notes

1. George Selgin, *The Theory of Free Banking: Money Supply under Competitive Note Issue* (Totowa, NJ, 1988); Lawrence White, *Free Banking in Britain: Theory, Experience and Debate, 1800-1845* (Cambridge, 1984).
2. Larry Sechrest, *Free Banking: Theory, History and a Laissez-Faire Model* (London, 1993), 68.

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3. Hugh Rockoff, *The Free Banking Era: A Reexamination* (New York, 1975).
4. Lawrence White, *Free Banking in Britain*, 137-141.
5. Andrew Econopoulos, "Illinois Free Banking Experience," *Journal of Money Credit and Banking*, 20(May 1988), 249-264; Lynne Pierson Doti and Larry Schweikart, *California Bankers, 1848-1993* (MA, 1994).
6. Armstrong and Denny Armstrong, Leroy and J. O. Denny, *Financial California: An Historical Review of the Beginnings and Progress of Banking in the State* (San Francisco, 1916), 18.
7. Armstrong and Denny, *Financial California*, 82.
8. Reva Scott, *Samuel Brannan and the Golden Fleece: A Biography* (New York, 1944), 377.
9. Benjamin C. Wright, *Banking in California: 1848-1910* (New York, 1910), 47.
10. Ira Cross, *Financing an Empire: History of Banking in California* (Chicago, 1927), 245.
11. *Ibid.*, 676.
12. *Ibid.*, 719-728.
13. Eugene White, "Experiments with Free Banking during the French Revolution," in Forrest Capie and Geoffrey E. Wood (eds), *Unregulated Banking: Chaos or Order?* (London, 1991), 133.
14. Nataf, "Free Banking in France (1796-1803)," in Kevin Dowd (ed), *The Experience of Free Banking* (London, 1992), 126.
15. "Free Banking in France," 127.
16. *Ibid.*
17. E. White, "Experiments with Free Banking," 142.
18. Rondo Cameron, *France and the Economic Development of Europe* (Princeton, 1961), 107.
19. Nataf, "Free Banking in France," 132-3.
20. *Ibid.*, 134-5.
21. Ernst Juerg Weber, "Free Banking in Switzerland after the liberal revolutions in the Nineteenth Century," in Dowd, *The Experience of Free Banking*, 187.
22. *Ibid.*, 191.
23. *Ibid.*
24. *Ibid.*
25. *Ibid.*, 187-195, 195 (quotation).
26. *Ibid.*, 195.
27. *Ibid.*
28. Kevin Dowd, *Laissez-faire Banking* (London and New York, 1993), 119-125.
29. *Ibid.*, 122.

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30. *Ibid.*, 119-123.
31. *Ibid.*, 122-123.
32. *Ibid.*, 117-144.
33. White, *Free Banking in Britain*, 30.
34. *Ibid.*, 20-35; number of banks from Table 2.1.
35. *Ibid.*, 26-30.
36. *Ibid.*, 76.
37. *Ibid.*, 36.