The EXPERIENCE of FREE BANKING

SECOND EDITION

The Experience of Free Banking

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THE EXPERIENCE OF FREE BANKING

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FOREWORD TO THE FIRST EDITION (1992)

The idea for this book was initially suggested by Chris Tame of the Libertarian Alliance. Historical free banking came to prominence in the early 1980s with Lawrence H. White's work on Scottish free banking, but it quickly became apparent that the Scottish experience was only one of a number of historical free banking episodes that had long been neglected by economists and monetary historians, and researchers were soon discovering more (and still are). He suggested it would be a good idea to bring some of these experiences together to see what could be learned from them, and this book is the result. I should therefore like to thank Chris for the initial idea, and Alan Jarvis of Routledge for his support and patience in seeing the project through to completion. Thanks are also due to Kurt Schuler for his helpful advice, and last, but certainly not least, to each of the authors who were kind enough to contribute to it. I hope these essays will persuade others of the importance of free banking and encourage them to explore it further.

FOREWORD TO THE SECOND EDITION

Free banking is a banking system in which banks issue their own notes under competitive conditions while typically operating on a commodity standard, in the absence of a central bank and in a legal environment in which the public are free to accept or reject bank currency as they choose.

In 1992 Routledge published the first edition of *The Experience of Free Banking*, which included a set of country-case experiences of historical free banking systems (Australia, Canada, Colombia, Foochow in China, France, Ireland, Scotland, Switzerland and the US) and a world overview.

This second edition includes these earlier case studies, in several cases updated, and a set of additional case studies (Belgium, Chile, Italy, Peru, Northeast China and Sweden).

An innovative feature of the new edition is a reader's guide to the literature that is intended to provide a starting point for future researchers looking into the many historical experiences of free banking. There is much more work to be done in this area.

KEVIN DOWD
Durham University
20 October 2023

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Last but not least, he thanks his friend and mentor, the late Chris Tame, who first suggested the idea of a collection of historical case studies of free banking.

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The usual caveat applies: any remaining errors are the author's.

TABLES AND FIGURES

1 INTRODUCTION: THE EXPERIENCE OF FREE BANKING

Kevin Dowd

In recent years we have seen a smorgasbord of proposals for monetary and banking reform. Broadly speaking, these fall under the following headings. The first are proposals for more activist central banking: these include proposals for more quantitative easing (QE), helicopter money, modern monetary theory, negative interest rate policy, central bank digital currencies, and so forth. In one way or another, these proposals are predicated on the belief that central banks are not doing enough and should have more power or more discretion. The second are proposals for less activist or more rule-bound central banks: these include proposals for the central bank to follow a Taylor Rule, a nominal GDP target, a money supply target (i.e. monetarism), peg the price of gold or go back to a gold standard. These are predicated on the belief that central banks are trying to do too much, or, more precisely, that they have too much discretion and that superior outcomes could be achieved if central banks were subject to more rules to restrain their discretion. The third are proposals for privately issued currency that is not derivative of central bank base money: recent examples include e-gold, the Liberty Dollar and cryptocurrency[1]; they also include numerous examples of community currency[2] and earlier historical examples of private currency, of which there were very many.[3] Finally, there are proposals to abolish central banking itself: these include proposals for 100 per cent reserve banking, currency boards[4] and free banking.

1 For more on these case studies, see Dowd (2014). Suffice to say that both were highly successful until Uncle Sam took them down.

2 For numerous instances, see the many successful instances of community currency discussed in the *International Journal of Community Currency Research*.

3 See also, for example, Timberlake (1987a,b), Champ (2007) or White (2022), to give just a handful of examples.

4 We say a little more about currency boards later in this chapter.

Of these various schemes, it is arguable that only three – private money,[5] currency boards and free banking – have been successfully repeated again and again. Of these three, my focus of interest here is the *historical record of free banking systems*.

For many years until the last quarter of the twentieth century the philosophy of central banking had reigned supreme and virtually unquestioned, and even economists sympathetic to laissez-faire – such as Mints (1950), Hayek (1960) and Friedman (1960) – readily accepted that 'money' and banking should not be left to the unfettered competitive market process. A conventional wisdom ruled which held that competition in the issue of bank currency should be suppressed because it would lead to rapid inflation, or because it would destabilise the banking industry, or because the issue of currency was a natural monopoly. There was controversy over how much power the central bank should have and what it should do, but no 'respectable' economist suggested that central banking itself might be the root cause of our monetary troubles until Hayek began to suggest that the only way to achieve monetary stability might be to denationalise money (Hayek 1976).

Hayek's suggestion attracted considerable interest and free banking became the focal point of a major research effort. Although the idea seemed novel and even bizarre, it soon became apparent that free banking systems had existed in the past and indeed, that free banking had had a long and respectable history, but that its history had largely disappeared from economists' collective memory.

This book provides an expanded version of the first edition of *The Experience of Free Banking*, which was published in 1992. This second edition begins with an overview of the world experience of free banking which surveys no fewer than sixty different historical episodes. These experiences lasted from several years in some cases to more than a century in others, but they all had in common the standard features of bank freedom, multiple competitive note issuers and the absence of any government-sponsored 'lender of last resort'. This overview is followed by fifteen chapters on the experiences of Australia, Belgium, Canada, Chile, Colombia, the Chinese city of Foochow (Fuzhou), Revolutionary France, Ireland, Italy, Northeast China, Peru, Scotland, Sweden, Switzerland and the ante-bellum United States.

5 I leave aside crypto: suffice to note that the historical performance of crypto is hugely controversial.

We can think of these experiences as a collection of historical experiments, and certain broad conclusions are clearly visible. To start with, these experiments indicate that the mid-to-late-twentieth-century conventional wisdom about free banking should be rejected.

First, historical experiences of free banking were *not* prone to inflation. Free banks typically issued convertible currency whose value was tied to that of some 'anchor' monetary commodity, usually gold or silver.[6] The price level was therefore tied to the relative price of the anchor commodity against a basket of goods and services, and if the banks had any ability to influence prices at all, it was distinctly limited. Inflations and deflations did occur, but they occurred in response to changes in market conditions for the anchor commodity (e.g. when there were gold discoveries), and these changes had similar effects on all economies on the same monetary standard regardless of whether they had free banking or not. Suspensions of convertibility in the absence of government intervention were extremely rare, if they ever occurred at all.[7] Suspensions that occurred due to government intervention were always followed by monetary expansion and inflation. The claim that competition among unregulated banks would lead to an explosive money supply and rapid inflation has no support in the historical record and, indeed, inverts the truth that rapid inflations are *always* associated with systems of government-promoted overissue of fiat currency.

Second, the historical record gives little support to the claim that free competition tends to destabilise the banking system. On the contrary, the experiences of historical free banking suggest that free banking is, in general, highly stable. Overissues were usually disciplined by the banks' clearing systems, which provided a rapid and effective reflux mechanism to return excess notes and deposits to their users; there is also some evidence that interest rates were more stable under free banking regimes than elsewhere (Pope 1989: 24); and in the absence of either government-sponsored liability insurance or a lender of last resort, banks needed to be careful in their lending, reserve and capital policies because they could not expect others to shoulder their losses or bail them out. Banks did sometimes fail under laissez-faire conditions, but these failures do not appear to have been

6 In most cases, there was just the one dominant 'anchor' commodity, but this was not always so: in the Northeast China experience, there were three monetary anchors: gold, silver and copper.

7 It is *possible*, however, that examples might be found among the US suspensions of 1837 and 1841, which originated with the banks and then were confirmed by state governments.

seriously contagious. Free banking systems were rarely subject to major banking crises, and where such crises did occur, they can usually be attributed to state pressure for cheap loans from the banks, which undermined their financial health (e.g. Peru in the 1870s), or to other forms of state intervention (e.g. Australia in the 1890s).

Third, the historical experience of free banking contradicts the idea that the issue of currency is in any sense a natural monopoly. Historical free banking systems seem always to have shown some tendency towards economies of scale – branch banking would displace unit banking, for instance – and there would be a tendency for a small number of 'big' nationwide banks to emerge that would engage in all the major banking activities, including note issue. But economies of scale were never sufficiently pronounced that a single bank emerged with a monopoly in any one of these activities. More banks would issue deposits than issue notes, but any of the handful of big banks would also issue notes, and in no case did one note issuer drive out all the rest unless the government specifically intervened to suppress multiple note issues and thereby establish a monopoly over the note issue.

The potential benefits of free banking are illustrated by the Scottish experience (for more, see, for example, Cameron 1972). Competition was fierce, and the fight for market share honed bankers' liquidity and capital management policies, their entrepreneurial skills and their willingness to innovate. Competition led them to introduce the cash credit account, an early form of overdraft, as well as the payment of interest on deposits. Competition gave an impetus to the development of branch banking, which enabled banks to exploit economies of scale as well as making them safer by facilitating the spreading of risks. There is little evidence that rivalry was ruinous, and the early 'note duels' – attempts to put rivals out of business by collecting a large number of their notes and unexpectedly demanding immediate redemption – soon gave way to clearing arrangements and other forms of mutually beneficial cooperation (e.g. facilities to lend to one another). Spreads between borrowing and lending rates were generally small. Banks gave commerce and industry access to credit that was both inexpensive and relatively easy to obtain, provided the public with loans and promoted habits of thrift by offering them higher returns on their savings than they could obtain elsewhere, and issued media of exchange that were more convenient and easier to hold than specie. In 1745, per capita income in Scotland was about half what it was in England at the time. However, a century later – a century that corresponds to the heyday of Scottish free banking – Scottish per capita income had risen to almost English levels despite England's own rapid growth. Scotland suffered from a number of obvious disadvantages relative to England: greater distance to markets, an inferior infrastructure and fewer raw materials. It had the edge over England only in its superior banking and educational establishments, and contemporary writers – including Adam Smith in *The Wealth of Nations* – believed that the Scottish banking system had contributed in a major way to the country's economic development.

Perhaps the best (and certainly the most colourful) assessment of Scottish free banking was given by Sir Walter Scott writing under the alias of Malachi Malagrowther. Defending the Scottish system against detractors who didn't understand it, he proclaimed (Malagrowther 1826: 38–39):

> *Here* stands Theory, a scroll in her hand, full of deep and mysterious combinations of figures, the least failure in any one of which may alter the result entirely, and which you must take on trust … *There* lies before you a practical System, successful for upwards of a century. The one allures you with promises, as the saying goes, of untold gold, – the other appeals to miracles already wrought in your behalf. The one shows you provinces, the wealth of which has been tripled under her management – the other a problem which has never been practically solved. Here you have a pamphlet – there a fishing town – here the long-continued prosperity of a whole nation – and there the opinion of a professor of Economics [KD: an Englishman, presumably], that in such circumstances she ought not by true principles to have prospered at all.

Free banking ended because it was suppressed for political, fiscal or ideological reasons and not because of any inherent flaws.

By any reasonable criterion, whether it be price stability, financial stability or efficiency, the central banking systems that replaced free banking performed worse – in some cases, far worse – than their predecessors.

Taxonomy

Let me now descend into the definitional morass that lurks beneath. The first issue is how to define 'free banking'. I would say that there is no single 'right' definition of the term and I don't want to police its boundary. We should respect the heterogeneity of real-world experience that delights historians but torments those who try to squeeze history into neat little boxes.

We do, however, need a working definition and, at the start of the Foreword to this edition, I offered the following definition, which will suffice for our purposes (emphasis added):

> Free banking is a banking system in which banks issue their own notes under *competitive conditions* while *typically* operating on a *commodity standard*, in the absence of a *central bank* and in a legal environment in which the public *are free to accept or reject* bank currency as they choose.

Let's deconstruct this definition and note that I have highlighted the important terms.

The first such term is '*competitive conditions*', which implies that banks competed with each other and that there was free or fairly free entry to the market. However, in practice, the playing field among the banks was not always a level one. For example, the Piedmontese Banca Nazionale and the Riksbank were privileged banks even during the Italian and Swedish free banking periods.

There is the phrase that the 'public *are free to accept or reject* bank currency as they choose' – the freedom of the public to reject a bank's currency underpins the competitiveness of the market in which the bank operates.

Then there is the term '*central bank*', which I interpret to be a bank that has monopoly privileges over the supply of currency, holds the reserves of the banking system, and is a lender of last resort for the other banks and maybe their regulator too.

Next there is the term '*commodity standard*'. The most common commodity standards were gold, silver, bimetallism and copper standards. Among the historical free banking experiences, the English-speaking countries of the nineteenth century tended to operate on a gold standard, but the non-English-speaking countries usually did not.

Finally, there is the adjective '*typically*'. This adjective is a weasel word that alludes to a number of potential qualifiers to the phrase 'operating on a *commodity standard*.' The easiest such case is where the medium of redemption – the asset or instrument handed over when a note is redeemed, which would be gold under a gold standard – is switched to something else of value, but the principle of convertibility into *something valuable* and hence the discipline against overissue are still maintained. For example, after news of the landing of French troops in Wales in February 1797 led to panic in England, an Order in Council was passed to allow the Bank of England to suspend the convertibility of its notes into gold. Scottish banks followed suit and began redeeming their notes with Bank of England notes instead.[8] Another example was the formal suspension of gold payments by New Zealand banks on the outbreak of World War I in 1914 in favour of a sterling exchange standard, which made little practical difference to these banks because they were already settling most payments in sterling balances by this time. In both the Scottish and New Zealand cases the suspension of gold convertibility made little practical difference to the note issue discipline under which banks operated.

The other cases arise where convertibility itself is suspended. The issue of currency is then governed by whatever rule replaces convertibility and it is an open question whether a banking system with suspended convertibility can be properly described as a 'free' one. I am not going to engage with the nitpickers on that issue, but I will make a couple of observations:

- The first is that if a suspension of convertibility is temporary and expected to be temporary, then the suspension of convertibility 'merely' interrupts the normal operation of the system and (arguably) does little lasting damage to it. To give an example, early Scottish free banks would sometimes issue notes with an 'option clause' that permitted the issuing banks to defer redemption of their notes for a short period. This option clause gave banks an additional means to handle liquidity problems (e.g. such as those caused by a note duel) and is not fundamentally at odds with the basic principle of convertibility.[9]
- The other observation is that historically the suspension of convertibility was sometimes a key point in a process by which free banking systems eventually gave way to monopoly currency issue and central banking. Examples of this process are provided by the experiences of Italian and Peruvian free banking. Italy had somewhat free banking from 1860 to 1866, but suspended gold convertibility in 1866, restored it in 1883, suspended it again in 1887 and established a de facto note issue monopoly in 1893. Peru had classical free banking from 1862 to 1873, when the Peruvian government started to intervene in the banking system; convertibility was then suspended in 1875 and private note issue was ended in 1879.

8 Selgin (2018a) has more on this episode.

9 For more on option clauses, see, for example, Dowd (1991) or Meulen (1934: ch. 9).

Thus, there is a big difference between a temporary suspension of convertibility in a free banking system where that suspension is expected to be temporary, and a permanent suspension of convertibility that leads to the end of free banking itself.

Most of the case studies in this book can be described as cases of 'classical' free banking operating under moderately ideal conditions (e.g. of peace and geographical and political stability). However, not all the case studies included here fit that description. Let me give two examples from the cases in this book.

One is US banking in the ante-bellum period, which consisted of a collection of state-by-state experiments that varied considerably in their nature and success. Some were close to my sense of classical free banking and some were not; some were called 'free banking' after the New York Free Banking Act of 1838, but the New York–style 'free banking' system differed in important ways from classical free banking, most especially in its bond collateral requirements; some other ante-bellum state experiences entailed monopoly banks or no banks; and we should not overlook those rare and almost mythical cases of 'wildcat' banking (for more, see Selgin 2021), which misled scholars for well over a century into the false conviction that the entire experience of ante-bellum banking could be dismissed as a disaster.

A second example is the free banking experience of Northeast China in the early twentieth century. This region faced political turmoil as the weak Chinese national government, Russia, Japan and Chinese warlords fought for control over it. The money supply included a multitude of different currency forms, both pre-modern and modern, issued by banks of each of the three nations, and no less than three different metallic monetary anchors: gold, silver and copper. Of particular significance is the effort in 1917 by the dominant regional Chinese government, the regime of the warlord Zhang Zuolin, to introduce a new version of the official currency of Fengtian Province, a silver-denominated currency known as the 'Fengtian dollar' (*feng piao*) to bring stability and order to the region's financial markets. In the first eight years of its existence, the *feng piao* came close to providing a uniformly accepted medium of exchange and unit of account across the region. However, the *feng piao* depreciated after Zhang Zuolin abandoned its metallic link in 1925 and demanded the printing of increasing amounts of the currency to finance his military ventures. In a nutshell, the experience of Northeast China in this period demonstrates both the ability of market competition to achieve monetary stability and unification, and the potentially catastrophic consequences of abandoning a market-based monetary system.

Currency board systems

There are also other systems without central banks, the best known of which are currency board systems. A currency board issues notes, and in many historical cases also coins and deposits, that are fully convertible into an anchor currency or commodity at a fixed rate and backed 100 per cent or slightly more by net foreign reserves. Currency boards have usually but not always been monopoly issuers of notes. Their defining characteristic, which differentiates them from a central bank, is that they are rule-bound monetary institutions without the power to engage in any form of discretionary monetary policy. Their assets are entirely foreign. They are fully convertible, do not operate as a lender of last resort or regulate the commercial banking system. Instead, the fiscal regime is subordinated to the monetary regime and a hard budget constraint is imposed on politicians.

Currency boards were first established in Mauritius in 1849 and were widely copied throughout the British Empire. By about 1950, the currency board system had reached its zenith, and then rapidly declined as currency boards were converted into central banks. Hong Kong returned to a currency board system in 1983 during a currency crisis, having abandoned the currency board system for over a decade while it let the Hong Kong dollar float. Currency boards then became a topic of interest again after the fall of the Soviet Union in the early 1990s, and new currency boards were set up by teams led by Steve Hanke in Argentina (1991),[10] Estonia (1992), Lithuania (1994), Bosnia (1997) and Bulgaria (1997).[11] (A separate one was also set up in Macao in 1995 in imitation of the Hong Kong currency board.) Writing in 2002, Hanke observed that currency boards' performance is unambiguously superior to central banks' performance whether judged in terms of GDP growth, average inflation or the fiscal deficit as a percentage of GDP.[12]

10 Hanke (2002: 102–3) explains, however, that the Argentinian currency board experiment collapsed in 2002 after having been extensively meddled with by Domingo Cavallo.

11 Kurt Schuler was also involved in the last four of these cases.

12 For more on currency boards, see Hanke (2002), Strezewski (2020) or Schuler et al. (2024).

'Free issue' systems

There are also 'free issue' systems, which Schuler (2013) defines as systems

> in which bank liabilities are not convertible into a commodity or foreign currency at a set rate, no party external to the commercial banking system such as a central bank issues a monetary base into which bank liabilities are convertible at a set rate (usually 1:1), and legal requirements compel people to use the local currency. The last characteristic sets them apart from all free banking systems, historical or imagined.
>
> The only clearly established historical case of a free issue system was Hong Kong from 1974 to 1983.[13] To be sure, the Hong Kong experience has some features akin to free banking. Chu (2002, p. 49) describes the Hong Kong banking system as having been 'virtually unregulated' from 1935 to 1964, although he also points out that the right to issue notes was restricted to only three banks and the right to issue coins and small denomination notes was restricted to the Hong Kong Government. Some light regulations were introduced in the Banking Ordinance of 1964, and subsequent reforms were made later. However, since 1935 Hong Kong banks have never been at liberty simply to issue as many notes as they see fit on the security of general assets. Instead, Hong Kong since 1935 has been a currency board system, with the unusual wrinkle, imitated only in Macau, that banks act as agents for the currency board in issuing notes rather than the board issuing notes directly. Banks could not (and still cannot) issue notes unless they deposit corresponding foreign reserves with the Hong Kong Monetary Authority.

Relevance of historical free banking to the current day

The ultimate question, however, is whether the historical experience of free banking has any relevance to the modern world. I would that say it does. The historical record shows that free banking is not prone to inflation, does not produce banking instability and does not produce a banking monopoly. These are big pluses. Plus if it worked in the past, then there is every reason to think it would work again in the future. Of course, getting free banking back into the Overton Window where it is considered politically possible is another matter. But the option exists and is highly attractive.

13 In correspondence, Kurt informs me that New Zealand from January 1931 to January 1933 might also qualify as a free issue system.

In this context, free banking has to be seen against two alternatives that (superficially at least) share with it the ideal of getting the government out of the monetary and banking system – a currency board and 100 per cent reserve banking.

We discussed the former system a couple of pages ago. Suffice to say that a currency board is a highly attractive system that gives a way to slay inflation and stabilise interest rates almost overnight and its historical track record is, in essence, almost perfect. One can also set up a currency board in such a way that the currency board has a sunset clause so that the currency board system segues into free banking once the board itself disappears.

Then there is 100 per cent reserve banking, a system long proposed by the Mises Institute[14] and more recently promoted by Positive Money.[15] This system involves 100 per cent reserves and is guaranteed to be able to pay out at all times. Such a system would ban banks from creating money and place the responsibility for money creation firmly on the central bank itself, however. At the same time, it would also stop bank lending, which raises the question of where lending would come from. As George Selgin notes, supporters of this idea fail to convincingly explain why they oppose fractional-reserve free banking. As he explains (Selgin 2018b):

> They oppose it for a variety of reasons, one of which is their belief that, in a truly free-market setting, fractional-reserve banking wouldn't survive. Instead, they insist, 100-percent reserve banks would prevail. That they haven't is due, in their opinion, to a banking industry playing field slanted in favor of fractional-reserve banks, especially by either implicit or explicit deposit guarantees financed through forced levies upon all banks, and sometimes by taxation or inflation. In short, fractional-reserve banking has been nurtured by government subsidies.
>
> Free bankers have tried responding to this argument by noting how fractional-reserve banking has prevailed under every sort of bank regulatory regime, from the earliest beginnings of banking, not excepting regimes that involved very little regulation, like those of Scotland, Canada, and Sweden, and that lacked even a trace of government guarantees or other sorts of artificial support. But since some 100-percenters seem unmoved by this approach, I here take a different tack, which consists of pointing out that

14 For example, Rothbard himself argued that fractional-reserve banking was inherently fraudulent. See Rothbard (2008: 94–110).

15 See, for example, https://positivemoney.org/about/who-we-are/.

> every significant 100-percent bank known to history was a government-sponsored enterprise that depended for its existence on some combination of direct government subsidies, compulsory patronage, or laws suppressing rival (fractional reserve) institutions. Yet despite the special support they enjoyed, and their solemn commitments to refrain from lending coin deposited with them, they all eventually came a cropper [because they couldn't resist lending out].

So the issue boils down to a trade-off between enabling banks to lend more, on the one hand, versus exposing them to the risks of fractional-reserve banking, on the other. However, I will not go into the merits and demerits of that debate here.

We now turn to Kurt Schuler's overview chapter on the world experience of free banking.

2 THE WORLD HISTORY OF FREE BANKING: AN OVERVIEW

Kurt Schuler

Central banking and free banking

The inability of central banks to prevent inflation in recent years has led a growing number of economists to rethink government's role in issuing money. Milton Friedman and Anna Schwartz (1986), in their article 'Has government any role in money?', answered that it has very little role, while F. A. Hayek has called for the outright abolition of central banking (1978: 106–7). They and others who question the desirability of central banking argue that money is best supplied competitively for the same reasons that competition is best for supplying other goods. Several writers have developed new models of competitive money supply ('free banking') and compared them with models of money supply under central banking (Vaubel 1984a; White 1984b: 1–22; Selgin 1988a; Christ 1989; Dowd 1989: ch. 1–4). The new models cast doubt on standard justifications for central banking, among them the claims that the production of reserves is or evolves into a natural monopoly, that competitive supply of money creates harmful 'external effects' that are absent under central banking, that a lender of last resort is necessary to keep a panic-prone banking system from collapsing, and that central bank policies stabilise output.

Other writers have taken a different tack, and have searched for historical cases of banking systems where money was supplied competitively, without a central bank, under conditions that to varying degrees approximate the laissez-faire ideal of the models. There have been many such systems. At present, the best-known and best-investigated cases are a handful that occurred in Europe and North America.[1] However, many others existed. During the nineteenth and early twentieth centuries, many countries had

1 Earlier surveys of cases of free banking are Cameron (1967, 1972), Vaubel (1978: 362–401, 1984a), Selgin (1988a: 5–15) and Goodhart (1988).

free banking for some time at least, and these experiences can shed light on some of the issues raised in the modern free banking controversy.

This chapter sketches the origins, performance and decline of free banking around the world, and offers some broad conclusions about free banking's record. There is not enough space to prove all my conclusions exhaustively, but, the examples I give, the table of cases of free banking at the end of the chapter, the works listed in the bibliography, and the other chapters in this book will enable sceptics to consider all the evidence and to judge for themselves the claims I make.

Free banking's historical record is more than a matter of mere antiquarian interest. It has radical implications for present-day monetary policy. The nature of banking is essentially the same today as it was when free banking was widespread. The techniques are more varied and sophisticated, but a bank's job is still to intermediate loanable funds between lenders and borrowers. If free banking worked well in the past, it should also work well today, and the fact that our current central banking is an old and familiar system does not necessarily make it the best system.

In the present context, I take 'free banking' to mean a banking system with competitive note issue, low legal barriers to entry, and no central control of reserves. Those are the minimum requirements that theoretical writings on free banking usually mention. It is sometimes hard to say at what point increasing restrictions on those and related liberties make a banking system no longer free. Consequently, some writers use the term 'free banking' to refer only to a theoretical ideal that has never existed and perhaps never could, or they use it to refer only to some of the historical cases mentioned in this chapter. However, a more liberal use of the term seems appropriate here, because all the banking systems that I call 'free' are certainly much closer to the theoretical ideal of free banking than they are to central banking, or to intermediate systems such as monopoly note issue without a central bank.

The origins of free banking

Selgin and White (1994) build on Carl Menger's (1981) theory of the origin of money to describe how invisible-hand processes can result in a sophisticated banking system as the product of a step-by-step evolution whose origins stretch all the way back to barter. Media of exchange, money, coinage, rudimentary banking with transferable liabilities, and advanced banking with features such as regular note exchange and clearing houses can result from the narrow pursuit of profit by individuals, with no thought of the wider implications of their actions. Their accounts imply that free banking is a spontaneous economic development, and that we should observe free banking systems springing up frequently where legal restrictions do not prevent it.

Selgin and White's theoretical picture fits the historical facts well. Private competitive banknote issue originated in China around the year 1000. (The first attempt by government to take advantage of the trail blazed by private note issue by monopolising the note issue for its own benefit occurred shortly thereafter, in 1023 (Yang 1952: 51–53).) Bills of exchange circulated like banknotes in Japan by the late 1600s (Shinjo 1962: 11), and, independently, the private institution that later became Sweden's central bank opened in 1656 as Europe's first large note-issuing institution. Merchants' scrip issues sprang up time and time again in many countries as an improvised response to the demand for a circulating medium other than coin (see, for instance, McIvor 1958: 14–15; Timberlake 1987; Hargreaves 1972: 46–52). However, scrip issuers typically did not carry on other banking functions, such as making large-scale loans or accepting demand deposits.

Where and when free banking existed

As Table 2.1 at the end of the chapter shows, there have been about sixty historical cases of free banking. They lasted from a few years to over a century. Free banking systems varied widely in the degree of government regulation they had. The table lists certain common forms of regulation. It is suggestive rather than exhaustive. For instance, it omits prohibitions of non-banking business or limits on mortgage lending, which were generally unimportant compared to the listed regulations in their effect on the performance of free banks in the nineteenth century. Small-note prohibitions were common, but only in a few cases did they seem to have hampered free banks greatly. Regulations limiting banks' note issues to some multiple of their capital or reserves were also common, but these imposed ceilings were frequently too high to be economically binding.

Ranging free banking systems along a spectrum, from least regulated to most regulated, a number of them, including those of Revolutionary France, Bolivia and Zimbabwe (then called Southern Rhodesia), apparently had none of the forms of regulation that the table lists. The Scottish system, the most thoroughly investigated case of free banking and the one that both advocates and critics often point to as closest to the theoretical ideal, had certain minor regulations, which Lawrence H. White discusses in his chapter in this book. The free banking systems of the British colonies were only slightly more regulated than the Scottish system. Many Latin American countries also had little formal regulation limiting the kind of business banks could do, but they frequently suffered government-imposed currency debasements. Among the most regulated free banking systems were the English system and the bond-collateral systems of the US and some other countries. The bond-collateral systems required banks to hold specified bonds as a precondition for issuing notes.

Free banking was common in the British Empire, the Orient and the Americas. Conversely, it was rare in northern and eastern Europe, Africa, the Middle East and colonies of countries other than Britain. The reasons merit explanation.

The banking system of the UK, with its patchwork of freedom and regulation, was the outcome of piecemeal legal accretions. In return for loans to the government, the Bank of England, founded in 1694, quickly accumulated unique legal privileges. It had sole custody of the government's bank account. It was, until 1858, the only note-issuing English bank whose stockholders had limited personal liability for its debts should it fail; until 1826, it was the only note-issuing bank allowed to have more than six stockholders and, after 1826, the only note-issuing bank with more than six stockholders allowed to issue notes in the London region. Hundreds of note-issuing banks with six or fewer stockholders were founded outside of the London region; they tended to be very small because the restriction on the number of stockholders severely limited their ability to raise capital. London had no note-issuing bank besides the Bank of England, though it did have a number of large merchant banks. However, the unique privileges that enabled the Bank of England to combine note issue with a large stockholders' capital meant that for decades it was larger and more important than any of its potential rivals (Clapham 1945). It became a quasi-central bank in the 1700s, and a full-fledged central bank in the 1800s, because of its privileges over and above other English banks. It grew into its current role as a non-profit, government-owned regulatory agency and lender of last resort by expanding its privileges and shedding the commercial banking functions that it originally had in common with other banks.

The Bank of Scotland, founded in 1695, and the Bank of Ireland, founded in 1783, at first held sway in their regions as local semi-monopolies, modelled on the Bank of England. The Bank of Ireland got its privileges in return for a loan to the Irish government (Hall 1949: 34–35). The Bank of Scotland, oddly, was prohibited from lending to the Scottish government. It lost its legal monopoly of Scottish note issue when its charter came up for renewal in 1716, because Parliament suspected that its directors supported the Jacobite claimant to the British throne, and it tried in vain to prevent the rival Royal Bank of Scotland from receiving a charter in 1727 (Checkland 1975: 58–59). A third bank, the British Linen Company, received a charter in 1746. The chartered banks tried to persuade Parliament to outlaw the unchartered, unlimited-liability note-issuing banks that began to spring up from around 1750. Their plea fell on deaf ears, however, and the principle of unrestricted entry became established by 1765 (Checkland 1975: 119–20). Unlike England and Ireland, there was no limitation in Scotland on the number of partners that an unchartered bank could have, and some unchartered banks eventually became larger and had more stockholders than the chartered banks.

The banking systems of the British colonies resembled the unfettered Scottish system rather than the heavily regulated English system. Entry into the banking business on equal terms with existing firms was even easier in many colonies than it was in Scotland, though other regulations were typically more severe. Whereas in Britain bank charters (which granted limited liability to stockholders) were a rare legal privilege, they were more common in the colonies. The most developed colonial systems – Canada, Australia, New Zealand and South Africa – granted charters to almost anyone of good character who could meet the minimum capital requirements. The first colonial banking system, that of India, began in 1683, though it did not start to become a modern, competitive system until the 1770s (Bagchi 1987: 32, 45). Banking in other British colonies did not begin until the early 1800s. By 1840, all larger British colonies, including such minor outposts as Guyana and Mauritius, had locally chartered banks. No colony consciously imitated the Scottish system; rather, local political pressures led even those that at first granted monopolies to open the field. For instance, Upper Canada (Ontario), New Brunswick and Nova Scotia had monopoly banking for ten to fifteen years, and the chartering of new banks became one of the chief subjects of political debate, in part because the existing banks were instruments of the parties in power. Reform leaders trained their rhetoric on the monopoly banks and eventually got bank charters for their own parties. Once the precedent was established, keeping out subsequent competitors became increasingly difficult. Competitors effectively mobilised borrowers disgruntled with existing banks, or people seeking the pride of having a locally owned bank in their own areas, to apply pressure on local legislatures to grant charters (see chapter 5).

Since competing locally chartered banks already existed in the colonies, the British government was often willing to grant royal charters to British bank promoters who wanted to establish banks in the colonies and who agreed not to compete in Britain with the Bank of England or other banks.[2] The dual system of charters lowered still further the barriers to entry into colonial banking. The first British colonial bank was the Mauritius Bank, chartered in 1831 (Baster 1929: 268).

By 1845, when Sir Robert Peel's Bank Charter Acts established central banking throughout the UK, free banking was firmly entrenched in the colonies. British attempts to quash competitive note issue were unsuccessful in those colonies that had a measure of home rule. The legislature of the Province of Canada (Ontario and Quebec) in 1841 defeated the plan of a British governor who adhered to Currency School doctrines for a monopoly bank of issue (Breckenridge 1894: 85–87). The British governor of New Zealand imposed a monopoly bank of issue in 1850, despite strong local opposition, but when New Zealand achieved home rule in 1856 the legislature abolished the bank, and banks that had formerly done only deposit business immediately began to issue notes as well (Hargreaves 1972: 54–61). Only in colonies lacking home rule was Britain gradually able to impose monopoly note issue, beginning with Mauritius in 1849 and not ending until 1951 with the British Caribbean colonies.

In the 1830s, Scottish banking methods began to influence colonial banking practices. 'Cash credit' lending (a form of overdraft borrowing), payment of interest on deposits, and more accurate forms of accounting spread to the colonies as British overseas banks and emigrating British bankers brought their experience to new lands (Checkland 1975: 393, 492, 511–12; Shortt 1986: 311–12, 327; Bagchi 1987: 494).

Free banking in China and Japan developed independently of free banking in Europe. The first Chinese banks were founded around the year 1000. Chinese banking had management procedures and lending customs that were quite different from those of European banks. However, after Western banks came to China beginning in the 1840s, Chinese bankers opened some

2 There were exceptions. The Colonial Office rebuffed persistent requests for royal charters to operate in India from the 1830s to 1851 (Baster 1929: 92–109), and in southern Africa from the 1830s to the 1860s (Sayers 1952: 354).

'modern-style' banks that imitated European practices, among them dispersed stock ownership. Modern-style, old-style and Western banks issued notes side by side. By treaty, Western banks were exempt from most Chinese laws, and hence operated virtually unregulated. Native banks faced little formal regulation until 1907, but were subject to occasional pressure to make loans to the government at below-market rates (Yang 1952: 81–91).

Japanese note-issuing banking began in the 1600s, and, like Chinese banking, became influenced by Western practices in the 1800s. In 1872, Japan adopted a bond-collateral banking system for native banks patterned on that of the US. The reform was mandatory, and, unlike the voluntary changes in the Chinese system, it did not leave room for old-style banking (Soyeda 1971: 424–25). Some foreign banks also issued notes in Japan (Cribb 1987).

Elsewhere in Asia, free banking did not exist until Western banks opened branches. The Banco Español Filipino had a monopoly of note issue in the Philippines during Spanish rule. After the Spanish–American War passed control of the Philippines to the US, the bank lost its privileges, and the competing Philippine National Bank was founded in 1916 (Conant 1969: 589–90). (The Philippine government also issued notes.) The Thai government allowed one French bank and two British banks to issue notes for several years before claiming note issue for itself (King 1988: 129–32, 236).

In Britain and its colonies, and in Asia, private, competitive note issue generally preceded any government note issue. In the Americas, on the other hand, government note issue often preceded private note issue, but unhappy experience frequently made government note issue politically unpopular, causing governments to leave note issue to competitive banks. Countries in the Americas that suffered currency debasement under government note issue in the eighteenth and early nineteenth centuries included Canada (French playing-card money and later British Army Bills), the US (Revolutionary War 'Continental Currency'), Costa Rica, Guatemala and Colombia. In Mexico, Argentina and Brazil, government-owned banks of issue that were little more than engines of inflationary finance took the place of direct government issue in depreciating the currency. When governments abandoned note issue, private, competitive banks filled the void with notes convertible into gold or silver, at least while governments avoided further involvement with the monetary system. Of countries in the Americas that were independent by 1900, only Haiti, Nicaragua and the Dominican Republic never experienced free banking.

British-chartered banks played an important role in the free banking system of the Americas except in the US. They preceded local free banks in Newfoundland, Mexico and Colombia, and were also prominent in Argentina, Peru and Uruguay. Local banks with significant British ownership existed in Costa Rica and El Salvador. The Colonial Bank, one of the corporate ancestors of Barclays Bank, served British colonies around the Caribbean in competition with local banks and two Canadian banks (Barclays Bank 1938: ch. 2; Joslin 1963). Restrictions on the activities of foreign banks were typically lower in the 1800s than they are today, and British banks in Latin America usually enjoyed the same rights as local banks, including the right of note issue.

Europe, which had many overseas banks with extensive branch networks, hindered banks at home with branching restrictions. Excluding the tiny countries, only Scotland, Sweden and Belgium permitted unfettered nationwide branching of free banks from the start of their free banking periods. England and Ireland in the 1820s abolished their rules limiting note issue to banks with six or fewer stockholders, thereby permitting banks to raise the capital necessary for nationwide branching, but banks that wanted to establish London or Dublin branches had to renounce the right of note issue. (No cross-border branching was allowed among England, Scotland and Ireland.) Spain, Italy, Greece, Portugal and France during its second free banking period (1815 to 1848) all had local note-issue monopolies. Note-issuing banks were forbidden to establish branches outside their monopoly region, though deposit-only banks were sometimes exempt from the restriction. Germany's note-issue system was particularly complicated, because its states had no uniform banking law or monetary standard before they were unified in 1871. Note-issuing banks were local monopolies, but competition in Germany was more intense than it appeared on the surface. The main purpose of several of the banks in small states was not to do business in their home territory, but to circulate their notes in Prussia or other large states nearby. To facilitate 'foreign' circulation, some banks printed denominations in terms of coinage standard both of their home state and of the state where they hoped the notes would circulate (Cameron 1967: 158). In Switzerland, cantonal laws prevented nationwide branching for many years, though some cantons had multiple issuers. In countries with branching restrictions, competition among note brands lacked the vigour that it had in Scotland or Sweden, but could still be powerful because some of the regions with monopoly issuers were small enough to ensure that the cost of using and redeeming notes issued in nearby regions was low.

Free banking never reached some areas of the world. Parts of Africa and the Middle East were so economically backward that they had no note-issuing banks at all during free banking's heyday in the nineteenth century. Instead, money lenders and traders performed prototypical banking functions, including issuing scrip. Russia, Austria–Hungary, the Ottoman Empire, Persia, Egypt, the Netherlands and Denmark granted note-issue monopolies as a way of helping state finances. Iceland, which remained a Danish dependency until 1944, set up monopoly note-issuing banks in imitation of Denmark. Finland did likewise when it became independent of Russia in 1917. The Balkan nations that broke away from Ottoman rule in the late nineteenth century also set up monopoly note-issuing banks.[3] Most countries that had monopoly note-issuing banks allowed competition in bank deposits, but fixed-rate convertibility between notes and deposits and the demands for notes made by deposit customers, made the monopoly notes into a kind of reserve (high-powered money) for the deposit banks. The note-issuing banks thus became rudimentary central banks, though not until later did they develop other characteristics that are now typical of central banks.

The prevalence of monopoly note issue in colonies of European powers other than Britain was related to that other vestige of mercantilism, the colonial trading company. Just as they organised privately owned colonial trading monopolies, France, the Netherlands, Portugal and Germany organised private colonial monopoly note-issuing banks, which generally had a monopoly of deposits too. Whereas Britain by the end of the nineteenth century had monopoly issue at home and free banking abroad, the other countries, practising a more uniform policy, had monopoly issue everywhere. The sole exception was the Portuguese colony of Macau, where local Chinese traders issued notes long before Portugal's monopoly colonial bank established a branch, and continued to issue notes until it was definitively outlawed in 1944 (Ma 1987).

Competition and cooperation under free banking

Free banking systems had several interesting common characteristics. One is that they showed no tendencies towards concentration of note issue in

3 For an outline of the free banking and central banking history of many countries, see Conant (1969).

a single bank. *All* free banking systems had more than one note-issuing bank, even in such tiny places as Malta, Mauritius and Fiji. Single issue never lasted after legal barriers to entry fell. Even where people had been long accustomed to using the notes of a single bank, competing issues soon found ready acceptance. Government-issued notes never drove free banks' notes out of circulation, except when punitive taxes or outright prohibition hindered competition. The most striking example of unrestricted banking's inherent tendency toward competitive issue was Brazil, which thrice abandoned monopoly note issue and each time saw competitive issue spring up immediately from banks that had formerly done deposit business only. In Scotland, eleven years elapsed between the expiration of the Bank of Scotland's monopoly and the founding of the first competitor, the Royal Bank of Scotland, in 1727. However, that was the longest lag of any free banking system, and the sequel is worth remarking: Scotland became the most hotly competitive banking market of its time. (Perhaps the lag was so long because Scotland was too economically backward to support more than one bank in the early 1700s.)

The mature free banking systems of countries that permitted nationwide branch banking generally had two to twenty large, strong banks. Competition compelled most small banks to merge so that they could take advantage of the economies of scale that their larger rivals enjoyed. In Scotland, for instance, there were 29 issuing banks in 1826 and 19 at the end of the free banking era in 1845 (White 1984b: 35, 37). In Canada, the peak was 51, in 1875; by 1932, there were only 10 banks (Neufeld 1972: 78–79). Other countries that allowed nationwide branch banking exhibited similar patterns of consolidation. The hundreds of small, poorly capitalised banks that existed in England and the US, and the dozens in Switzerland and Germany, were the feeble offspring of legal restrictions. China, Japan and some very small places (such as the English Channel island of Guernsey) where 'everyone knew everyone else' were the only countries that allowed nationwide branching yet had predominantly unit banking systems for decades. Chinese and Japanese customers strongly valued family and geographical ties to particular banks, so branch banks did not have the marked advantages over unit banks that they enjoyed elsewhere. Despite the small number of banks in most mature free banking systems, consolidation never reached such a point that only one bank was left to issue notes. Note issue showed no more sign of being a natural monopoly than deposit taking was then or is now.

Competition was a surprise to many early bankers, who often mistakenly believed that trade could not support a rival in their neighbourhood. For example, the Bank of Scotland and the Swedish Riksbank were piqued that other firms set up right under their noses and took business away from them (Checkland 1975: 58–62; Jonung 1989: 12, 27). In Canada, the Quebec Bank regarded its home city as a private preserve, and tried to persuade the legislature to close the Bank of Montreal's branch there (Denison 1966: vol. 1, 150).

The first banks frequently nurtured jealousies that did not disappear until they realised that the competition was there to stay. Some initially refused rivals' notes, but they soon came to understand that it exposed them to an asymmetrical reserve drain. Rivals who accepted their notes had a claim against their reserves, which the rivals would periodically present for redemption, but if they refused to accept rivals' notes, they had no offsetting claim against the rivals with which to replenish their reserves. Some banks then changed tactics, and practised 'note duelling' – collecting large quantities of their rivals' notes and presenting them suddenly, at irregular intervals, for immediate redemption (usually in gold or silver). The Scottish banks had the longest note duelling period, nearly half a century (Checkland 1975: 118). Note duelling was rarely successful in forcing other banks to suspend convertibility. Typically, note duelling vanished and regular note exchange developed much more quickly than it did in Scotland, as banks came to realise that regular note and cheque exchange was mutually beneficial because it reduced the need for reserves all around. Mentions of note duelling are rare for banking systems that began in the mid nineteenth century or later, so evidently its drawbacks were common knowledge among bankers by then.

All free banking systems developed regular clearing arrangements, though few had formal clearing houses. Informal, bilateral clearing was cheaper than multilateral clearing until the number of banks or the volume of liabilities to be cleared became great. Free banking systems without branching restrictions often had just a handful of banks, so multilateral clearing had little advantage over bilateral clearing. The author of a handbook for Canadian bankers stated near the turn of the century that there was little gain to be had from establishing clearing houses in cities with fewer than seven banks (Knight 1908: 137). The internal workings of individual banks' branch networks achieved economies of scale that, up to a point, were comparable to those of a clearing house in processing notes and cheques for redemption. Branch banking combined with regular bilateral exchange was often a satisfactory alternative to a clearing house.

In Europe, credit-clearing arrangements preceded note-issue banking. The trade fairs of Champagne became the centre of clearing for bills of exchange by the 1300s (Roover 1974: 203). Japanese banks had clearing arrangements by the 1600s and Chinese banks by the 1700s (Yang 1952: 86; Crawcour 1961: 357). The Scottish banks began nationwide multilateral clearing, centred in Edinburgh, in 1771 (Munn 1981b: 25). (Bilateral exchanges in each case began long before.) The impetus for the Scottish clearing house was an upstart bank's desire to distinguish itself from the stodgy practices of the older Edinburgh banks, which refused to accept the notes of many rural issuers. Most of Scotland's 31 banks joined the clearing arrangement, directly or through correspondents, not long after it opened. Other early multilateral clearing arrangements sprang up where there were similarly large numbers of banks. Systems that had branching restrictions, such as those of the US, England and Switzerland, were especially likely to have multilateral clearing, since they tended to have many more banks and thus higher average transportation costs for bilateral note redemption.

Clearing houses often developed beyond their initial role as note exchanges and became vehicles for cooperative action. They established consensus among members on certain matters for which a uniform policy was desirable, such as procedures for handling out-of-town cheques or efforts to detect fraud. In a few instances, they became the chief organisations through which banks marshalled reserves to face local panics. The New York City clearing house played a particularly important role in mitigating panics from 1857 to 1907 (Timberlake 1984). A large group of Mexican free banks in 1899 founded the Banco Central Mexicano to act as a clearing house and a lender to banks facing local panics (Conant 1969: 485–86). Despite its name, the Banco Central was not a central bank in the present-day sense: it had no monopoly of note issue (in fact, it did not issue notes), and in no sense controlled the money supply of its members.

Though clearing houses were vehicles for cooperation among free banks, attempts to use them to form cartels were largely unsuccessful. In Scotland, Canada, Australia, Switzerland and Singapore, the uniform interest rates that clearing houses or bankers' associations set for their members gave way to rate wars as soon as any bank (usually a smaller one seeking to compensate for the more limited range of services that it offered customers) spotted a competitive opportunity, and action to punish renegades was futile (Johnson 1910: 134–35; Landmann 1910: 41–45; Conant 1969: 305–6; Nelson 1984: 112–13; Pope 1989: 79).

Checkland (1975: 452), voicing a claim that could easily be made about many other free banking systems, states that the Scottish system during the free banking era was to some extent a cartel. As evidence, he adduces the generally uniform interest rates that the banks set. However, uniformity may equally well indicate that vigorous competition enforced the 'law of one price'. Clear-cut evidence of cartelisation would be persistently higher loan interest rates, lower deposit rates or higher profit margins than the more fragmented English banking system had. None of these characterised Scottish banking. Interest-rate-setting agreements never lasted long, as Checkland himself admits (1975: 391). (After Scotland's free banking era, when no new note-issuing banks were allowed, matters may have been different.) Even though there were few banks in Scotland and in many other banking systems when the systems reached maturity, the number was large enough to ensure effective competition. As long as legal barriers to entry are low, few competitors need not imply lack of competition. In industries such as banking where there are economies of scale, one should not expect to see the thousands of firms that inhabit unrealistic textbook expositions of 'perfect' competition.

The notes that free banks issued generally circulated at par nationwide, except where the size of the country, poor transportation or legal restrictions on branch banking made note redemption quite costly. Even Canada, despite its immense size and sparse population, had nationwide par note acceptance by 1889 (Breckenridge 1894: 245–46), four years after railways finally linked the country from coast to coast. Par note redemption usually came into being quite early in the free banking periods in small countries.

Aspects of free banking's performance

In assessing a banking system's performance as part of the wider economy, economists typically look at how well it fosters economic growth, intermediates efficiently between lenders and borrowers, maintains stability of prices or exchange rates, avoids problems of fraud and counterfeiting, prevents overissues of credit and discourages bank runs and panics.[4] The

4 One should remember, though, that like any institution that arises from the voluntary cooperation of many people, free banking served a variety of ends. To suggest that any single quality taken in isolation should be the standard for judging free banking systems is to imply that bankers and consumers in the free banking era should have had the same tastes that we do.

least regulated free banking system did well by those standards. The more regulated ones sometimes did not, and in many cases regulations seem to have caused their poor performance.

Economic growth

The sole study that examines the relation between banking systems and growth rates is favourable to free banking. In a comparative survey of seven banking systems, Rondo Cameron and others (1972: 97, 290, 304, 307–8; 1982) gave the Scottish system, which was the most free of all, the highest marks for promoting growth. Cameron contended that the assimilation of the Scottish system to English practices that occurred after Peel's Bank Act of 1845 contributed to Scotland's relative industrial decline in the late nineteenth and the twentieth centuries.

Efficiency at intermediation

There is little systematic work on how efficient various types of banking systems were at intermediating between lenders and borrowers. However, bank profits and spreads between deposit and loan interest rates under free banking generally do not seem to have been higher than they were in nearby central banking systems, suggesting that free banking was at least as efficient as central banking at intermediation.

Exchange-rate and price stability

Free banking systems maintained exchange-rate stability by giving people the right to convert banknotes and deposits into gold or silver at a fixed rate. Free banks issued notes denominated in the main currency of the region where they hoped the notes would circulate. There was not a proliferation of different monetary units; in fact, during free banking's heyday in the 1800s and early 1900s there were fewer major monetary units than there are today. Dozens of countries had local monetary units equivalent to the silver dollar, the gold dollar or the gold pound sterling. By making the units official, governments in most cases merely recognised conventions that markets had already established.

The commercial customs and the legal framework of the nineteenth century made free banking inherently a regime of convertibility. Free banks had strong competitive incentives to maintain convertibility as a way of attracting customers (Dowd 1989: 7–8). Except when governments allowed banks to renege on their previous contractual obligations to convertibility, there seem to have been no cases of free banking systems issuing fiat-money liabilities carrying no promise of fixed-rate convertibility. Temporarily inconvertible bank currencies sometimes circulated alongside convertible bank currencies of rival banks at a discount, as during the panic of 1857 in the US (Hammond 1957: 466), but the tendency was for all free bank currency to be convertible. Fiat money nowhere permanently supplanted convertible currency as the voluntarily preferred medium of exchange, and sometimes, as in the case of the California 'gold banks' of the 1860s and 1870s, people successfully defied government attempts to impose fiat money on them (Greenfield and Rockoff 1990). Notes of banks that had failed or suspended payments kept value only to the extent that people expected eventual payment in gold- or silver-denominated assets. Whatever economists today may say about the theoretical advantages of floating exchange rates, the voluntary practice of the nineteenth century strongly favoured the stability that fixed-rate convertibility afforded.

Free banking's success at maintaining peacetime convertibility (at least, in countries where governments enforced the redemption rights of noteholders and depositors) suggests that free banking was what enabled the gold standard to persist before World War I. George Selgin (1988a: 40, 96) has argued that where commercial bank liabilities are convertible into a 'base money' (such as gold) whose supply is limited, free banks must quickly respond to changes in their reserves. Central banks, as the holders of base money for the whole banking system, do not lose reserves as quickly when they overissue, and so have more leeway in responding when losses come. The discipline that regular clearing imposed, enforcement of the laws of contract between banks and their noteholders and depositors, and free banks' lack of power to make their notes legal tender (hence, the absence of a 'time consistency' problem) explain why free banking systems rarely abandoned specie convertibility during peacetime. Free banks at times attempted to manipulate exchange markets, but without the limited success that central banks on a gold standard sometimes had with reserve sterilisation policies. For instance, Scotland's Ayr Bank failed in 1772 partly because it could not prop up exchange rates between Scotland and London (Checkland 1975: 128). It may be that because much of the world had free banking during the time of the classical gold standard, the gold standard was indeed automatic then, contrary to the belief of many writers who have examined its workings (for a listing, see Bordo 1984).

During and after World War I, many countries switched to central banking or introduced measures to control the supply of commercial bank reserves, and the gold standard may have lost its automatic character as a result. (It may also have been important that, before World War I, central banks acted more like the privately owned entities most of them were, rather than the government appendages they all later became.)

Because free banking was inherently a regime of convertibility into gold or silver (or copper, in China), long-run price stability was greater than it has been under central banking, which has often begun as a regime of convertibility but has always become one of fiat money. Even a casual look at historical trends in price indexes (for instance, the tables in McCallum 1989: 247) confirms that long-run price stability was greater under free banking.

Counterfeiting and fraud

Counterfeiting and fraudulent note issue were not serious problems under free banking. Even where there were many contemporary complaints about counterfeiting or 'wild-cat' banking, subsequent research suggests that the complaints were exaggerated (Rockoff 1975a: 13–33). The complaints arose in systems that had hundreds of note brands because they restricted branch banking (England before 1826, the US and France during the Revolution[5]) or during periods when a banking system as a whole suspended convertibility with the government's blessing (e.g. Canada in 1837). Accounts of branch banking systems rarely mention instances of counterfeiting and fraudulent note issue during periods of convertibility.

Frauds by bank employees happened, of course. But there is no evidence that fraud was so widespread that it undermined the stability of any free banking system, though it occasionally caused individual banks, usually small ones, to fail. Certainly free banking offers nothing to compare with the massive fraud in the American savings and loan industry in the 1980s.

Liquidity and the lender of last resort

The most common argument that economists make for the desirability of a central bank is that commercial banks need a higher authority to prevent

5 The French *caisses patriotiques*, which issued small-denomination notes, faced no explicit branching restrictions, but the national government's hostility towards them made expansion risky. The government outlawed them in 1792, less than two years after they came into being (E. N. White 1990a: 271).

them from reckless credit expansion in good times and to serve as their lender of last resort in bad times. The argument originated with Walter Bagehot (1912: ch. 6–7). In its current form, it claims that depositors and noteholders cannot adequately discipline commercial bank credit expansion by themselves because they lack the necessary information.[6] Therefore, banking systems without a central bank are supposedly prone to occasional sudden demands for redemption, which they cannot meet, when people try to convert notes and deposits into the reserve asset as a way of testing the solvency of banks. A central bank can regulate commercial banks to prevent them from overexpanding credit, or help them surmount crises by lending generously to them (Goodhart 1988: ch. 5, 7).

I believe that economists have misread the historical evidence that they adduce in favour of central banking. Free banking systems were on the whole more stable than central banking systems during peacetime and no less stable than central banking systems during wartime. As we shall see later, the English and American free banking systems, which economists often cite as examples of free banking's instability, were among the most regulated of all free banking systems. The far less regulated Scottish and Canadian free banking systems had much better performance under similar economic conditions. Most free banking systems experienced *no* peacetime system-wide panics, and even heavily regulated free banking systems developed arrangements that provided liquidity without a lender of last resort.

Where the law enforced contractual obligations to convertibility, free banking systems did not habitually hold inadequate reserves to meet redemption demands, as Richard Cothren (1987) has suggested they might. No account of any free banking system that I am aware of mentions any attempt by free banks to expand credit in concert with one another; each bank was too much concerned with guarding its own reserve. Individual banks overextended credit and sometimes went broke by being overly bold, but that is a danger under any fractional-reserve banking system.

Free banking systems developed several means of providing themselves with liquidity during crises. One was the local interbank lending market. It was extremely rare for free banks in a system to be so heavily 'loaned up' that none was willing to lend to banks that were illiquid at the moment but had sufficient assets to repay a short-term loan. Other banks were often

6 Vaubel (1984b) rebuts the related argument that money itself has characteristics that justify suppressing competition between issuers of money to solve 'public goods' problems (made, for example, by Brunner and Meltzer 1971: 802).

willing to rescue a troubled bank, either for a high interest rate on a loan or, in severe cases, for control of the bank. Sometimes a single bank assumed all the risk, while at other times they formed syndicates. As I have mentioned, in the US and in Mexico, clearing houses mobilised the reserves of their member banks during crises. In the Australian crisis of 1893, the Melbourne clearing house did likewise (Pope 1989: 22). Unlike current central banking systems, free banking systems did not have a policy that some banks were too big to let fail. Solvent banks sometimes expressed fear about the effect on public confidence of an insolvent rival's failure, but on the other hand, some very large troubled banks were in such straits that nobody would take over their management, so they had to declare bankruptcy.

In certain countries, banks that could not raise sufficient funds in local markets borrowed in a larger market in another region of the country or across the border. Thus Scottish banks and British overseas banks borrowed in London, Swiss banks in Paris, Canadian banks in New York, and so on. Some writers have contended that free banking systems were 'satellites' of the central or semi-monopoly banks in the large money markets (the Bank of England, the Bank of France, the Federal Reserve System and perhaps the US Treasury) (Goodhart 1988: 52). Many claim that the Bank of England was in fact the lender of last resort to the whole world during the classical gold standard's heyday, and that it was what enabled the classical gold standard to persist.

However, the Bank was not even the lender of last resort to Scotland, let alone to the four corners of the earth. Checkland's history of the Scottish banking system (1975: 409–10, 444) mentions only one occasion when the Bank of England acted like a lender of last resort to a Scottish bank. In 1830, when war with France threatened, the Royal Bank of Scotland arranged a long-term credit with the Bank of England. However, during the panic of October 1836, the Bank of England made the Royal Bank repay the loan. Charles Munn (1981a), in his history of the smaller Scottish banks, makes no mention of the Bank of England being a lender of last resort to them. Kevin Dowd (1990a) also disputes the claim that Scotland's banking system was a 'satellite' of the Bank of England.

Scotland, and much of the rest of the world, certainly did business in the London money market. The larger Scottish banks kept deposits with London correspondents, in part because they were forbidden from establishing branches in England. But London would have been the financial centre of the British Isles, and of the world, whether the Bank of England had existed or not.

The UK was the greatest commercial nation of the nineteenth century, and London was its centre. Other financial centres, among them Montreal,[7] Shanghai, Osaka and Stockholm, had no central bank at the vortex and were none the worse for it. Indeed, that London was the storm centre of so many eighteenth- and nineteenth-century panics suggests that the Bank of England's effect on the world financial system may have been detrimental. All eighteenth- and nineteenth-century panics were apparently worse in England than in Scotland (Cameron 1967: 98), except the Scottish crisis of 1878, well after the free banking era, which occurred when a large Glasgow bank failed.

Another means of providing liquidity, which Scottish banks used especially widely for a time, was an option clause. A standard Scottish option clause permitted a bank to delay gold payment of notes and deposits for up to six months, during which it paid 5 per cent annual interest, a higher than normal rate and the legal maximum.[8] The delay gave the bank time to liquidate assets at good prices rather than at fire-sale losses. The Bank of Scotland originated the option clause in 1730 after the Royal Bank of Scotland's note duelling tactics made it suspend convertibility temporarily (Checkland 1975: 67).[9] The option clause suffered undeserved bad publicity from Adam Smith (1937: 309–10), who, though he otherwise approved of free banking, claimed that banks' abuse of the option clause disrupted Scotland's internal exchange rates. The British Parliament outlawed the option clause in 1765, and outlawed notes under £1, as a way of favouring the three chartered banks, which suffered less from the measures than their smaller, unchartered rivals (Checkland 1975: 118–21). Agreement to the option clause was voluntary; people who disliked it could hold the notes and deposits only of banks that did not have it. Advantageous as the option clause could have been though, it was rarely used elsewhere (Hammond (1957: 178) describes one case), though some banks in

7 Official monthly statistics show that from 1871 (when reporting began) to 1927, the Canadian banking system as a whole was never a net debtor to 'banks and banking correspondents, elsewhere than in Canada and the United Kingdom' (Curtis 1931: 31, 45), a category that included Canadian banks' New York activities. During the American panic of 1907, Canadian banks actually increased their New York loans (Rich 1988: 122).

8 After adopting the option clause, the Bank of Scotland used it only once, in 1745, when Bonnie Prince Charlie's rebellion provoked a general suspension of convertibility (Checkland 1975: 73). Apparently, the existence of the option clause was by itself enough to deter bank runs. An option clause would have benefited Scottish noteholders during the Restriction period of 1797 to 1821, when all British banks suspended convertibility. Instead, noteholders received no interest. Banks had less incentive to resume payments, because suspension imposed no additional costs.

9 For an exposition of the rationale of the option clause, see Dowd (1988).

the US even today have 'notice of withdrawal' clauses, which allow them to delay redemption but do not impose a penalty rate of interest.

As an unsatisfactory substitute for contractually specified suspension of convertibility, free banking systems sometimes imposed inconvertibility involuntarily on noteholders and depositors, with express or tacit government approval. Most involuntarily imposed suspensions happened during wartime. Governments recognised that compelling banks to maintain convertibility would choke off credit as the public rushed to withdraw gold and silver from bank reserves.

The precarious situation that free banks faced in wartime was not the product of free banking's own instability, but of events that gold- or silver-standard central banking systems could not handle either. If anything, central banking systems historically have been more prone to suspend convertibility than free banking systems. For example, the Bank of England, which has one of the better records among central banks, suspended convertibility during 1696–97, 1797–1821, 1914–25, 1931–46 and from 1971 to the present. In 1825, 1839, 1847, 1857 and 1866, it avoided suspension only by borrowing from the Paris money market or breaching the ceiling of uncovered note issue laid down in the Bank Charter Act of 1844. The Bank of France likewise suspended during the revolution of 1848, the Franco-Prussian War of 1870 and World War I. During the Great Depression, central banks that had been on the gold standard abandoned it for as long as fifteen years. And all of them again abandoned it in 1971 under pressures that they could easily have surmounted, had they had more political willpower; no war or great economic calamity had occurred.

Panics

Absence of system-wide panics (bank runs) is a good indicator of the stability of banks as a group. In considering whether free banking systems were prone to panics, though, one must carefully distinguish between wartime and peacetime panics. There are few cases of banking systems, whether under free banking, central banking or other arrangements, that maintained fixed-rate convertibility into gold or silver during wartime. Both the countries that had free banking and those that had central banking suspended convertibility during World War I, for example. In countries that had convertible government-issued notes circulating alongside banknotes, such as Canada, the free banks and the government alike suffered convertibility runs.

There is a chicken-and-egg problem in trying to assess why wartime convertibility runs happened, either under free banking or under central banking. It could have been because people were fearful that the issuing banks would fail, or because people anticipated that governments would suspend convertibility as a prelude to inflationary war finance. If the option clause had been widespread, it would be easier to tell the difference between the two causes of runs: countries where most banks used the option clause should have had only runs on *individual* banks in wartime. The option clause should have been a sufficient deterrent to *system-wide* wartime bank panics, as it was before it was outlawed in the Scottish free banking system. However, since such test comparisons are lacking, it seems wise to restrict the evidence about system-wide panics under free banking to peacetime cases only.

System-wide peacetime panics in free banking systems were infrequent. There were occasional runs on individual banks whose solvency the public doubted, but they rarely spread to other banks that had no business connection with the first bank to suffer a run. Even more rarely did they ever turn into general runs for gold or silver from the banking system. Instead, people switched funds from banks that they perceived as risky to those that they perceived as safe, leaving the banking system's total gold and silver reserves unchanged. System-wide peacetime panics under free banking occurred in England in 1825 and 1836–37; in the US on half a dozen occasions from 1819 to 1907; in Ireland and Canada in 1836–37; in Belgium in 1848; in Sri Lanka (then called Ceylon) in 1884; in Argentina, Uruguay and Paraguay in 1890–91; in Australia and New Zealand in 1893; and in Chile in 1898. Let us briefly now briefly examine these cases, except for the English and American panics, which we shall consider later.

Ireland. A credit stringency gripped the British Isles in the autumn of 1836, following a decision by the Bank of England to raise its discount rate from 4.5 to 5 per cent and to stop lending to unlimited-liability 'joint-stock' banks. Irish banks suffered a run in November after one of their number failed – the Bank of England had earlier refused to lend to it – but they did not suspend (Ollerenshaw 1987: 42–43).

Canada. By the spring of 1837, the credit stringency in the British Isles spread to the New World as British demand for New World products dropped. All but a few banks in the US suspended specie payments in May; banks in

Canada, except Upper Canada (Ontario), followed suit. In the Maritime provinces, banks resumed by the end of the summer. In Lower Canada (Quebec), banks resumed soon after their US counterparts in May 1838. The governor of Upper Canada refused to let banks in the province suspend, and as a result, a wave of business failures, far more severe than in the other provinces, swept over the land as banks contracted credit (Shortt 1986: 333–45; Schull and Gibson 1982: 35). (Here is a case where an option clause would have been advantageous, both to banks and to their borrowers, in helping buy time for more orderly liquidation.)

Belgium. The French revolution of February 1848 forced the Bank of France to suspend convertibility. The Belgian public took that as a signal to stage a run on Belgian banks, and an Antwerp bank failed. To prevent a greater crisis, the Belgian government allowed the two biggest banks to suspend convertibility and made their notes legal tender. However, the notes did not depreciate against silver, which was Belgium's monetary standard at the time. The two big banks lent liberally to smaller banks and industry, and by June the storm passed (Cameron 1967: 135). Nevertheless, Belgium established a central bank in the belief that it was the only way to avoid another crisis.

Sri Lanka (Ceylon). The Oriental Bank Corporation, which had three-quarters of Ceylon's note circulation, failed in 1884. Its demise came at the end of a long slump in the market for Ceylon's principal export, coffee, which brought a decline in the bank's fortunes. To avert panic, the governor guaranteed the bank's notes (Gunasekera 1962: 61–70). The other note-issuing bank in Ceylon could not easily expand its issue to fill the gap in supply that the Oriental Bank failure created because, as was typical of British colonial banks, its charter prohibited its note circulation from exceeding the amount of its capital (Nelson 1984: 186).

Australia. Australian land values began to drop in 1888, as the collapse of a building boom, caused by an influx of foreign investment, threw large new projects onto the market. Near the end of 1889, the first of what was to become a chain of mortgage company failures occurred; the failures continued until 1892. Some small banks also closed their doors, but not until January 1893 did a big bank fail. Runs on other banks followed, and by May, 13 of the 26 banks in the system suspended convertibility into gold. The other banks did not suspend convertibility, though, and all but one of the banks that suspended reopened within two months (Gollan 1968: 28–33; Pope 1989: 18; Dowd, ch. 3 in this book).

New Zealand. The Australian crisis hurt the Bank of New Zealand, which was weak from a series of losses it had suffered since the late 1880s. The crowning blow was the failure of one of its largest borrowers. The bank asked the government to rescue it, which the government did. The other banks in the system suffered runs because the public suspected them of weakness, but they met all demands to pay out gold (Sayers 1952: 326–27).

Argentina. Argentina's currency during its free banking period consisted of fiat government notes and banknotes nominally backed by gold government bonds, but in reality unbacked. In November 1890, the Bank of England came to the rescue of Baring Brothers, the largest underwriter of Argentine bonds. News of the Barings failure prompted a drain on banks owned by Argentina's national and provincial governments, which failed in April 1891. The British-owned London and River Plate Bank was one of the few to survive a run on private banks in June. Argentina centralised the note issues of the failed banks in a government agency that was supposed to restore gold convertibility, but did not (Joslin 1963: 125–28; Quintero-Ramos 1965: 86).

Uruguay. In Uruguay, the government bank failed in April 1890. The failure of another bank in August 1891 sparked a system-wide run. The London and River Plate Bank, which maintained convertibility while its rivals were suspending, then emerged as the strongest in the country. Uruguayan political opinion was hostile to what it considered foreign domination in banking, and a central bank was founded in 1896 on the wreckage of the old government bank (Joslin 1963: 136–37).

Paraguay. Most of Paraguay's foreign trade passed through Argentina, and Argentina's troubles caused a run on Paraguay's banks, which then suspended convertibility. By 1891, the government had bought three banks and taken over their inconvertible note issues, and it did not restore convertibility (Rivarola 1982: 209–17).

Chile. The threat of war with Argentina in 1898 led to rumours that the government would abandon the gold standard, which had been reestablished a few years before after a long period of inconvertibility. A scramble for gold ensued in Santiago. When it started to spread to the rest of the country, the government allowed the banks to suspend convertibility. Once it had done so, the government was tempted to increase its own note issues, which had been responsible for the previous period of inconvertibility, and Chile did not return to the gold standard until 1913 (Subercaseaux 1922: 116–17). Conant (1969: 514) blamed the crisis on the exchange-rate system, which, like the Japanese and Argentine systems, attempted to keep government currency convertible by selling gold bonds to banks that wanted to issue notes.

Some recent economic models of bank runs (Diamond and Dybvig 1983; Gorton 1985) have suggested that runs on individual banks and on the banking system might be common where there is no central bank or government deposit insurance. According to these models, bank runs can arise randomly, and once they do, they become self-fulfilling prophecies: since no fractional-reserve bank ever has enough reserves on hand to meet convertibility demands from all its customers at once, a small number of withdrawals can generate a mad rush by other customers to withdraw before a bank's reserves are depleted. Free banking's history does not support the results of these models. The panics that we have just examined all had readily identifiable causes. In a detailed investigation of runs on individual Canadian banks from 1867 to 1925 (Schuler 1988), I did not find any that seemed random. Runs were caused by bad news about a bank's asset holdings (for instance, failure of a major debtor) or by troubles affecting banks with similar portfolios. Only in about half the cases did banks suspend convertibility or fail. Runs did not spread to banks that were utterly dissimilar from the first bank to experience trouble. Large size was a deterrent to runs: runs sometimes spread from large banks to small banks with similar characteristics, but did not spread from small banks to large banks. The free banking systems of other countries seem to have had similar experiences to Canada.

Causes of free banking's demise: seigniorage

If free banking worked so well, why did it disappear? Broadly speaking, its demise had three causes. In some countries, governments squeezed out competitive note issue to extract monopoly profits (seigniorage) from their own note issues. In others, theoretical arguments for monopoly note issue carried the day. In still others, a bank failure or a suspension of gold or silver convertibility discredited free banking. Although in a number of cases those causes were mingled, for the sake of simplicity Table 2.1 assigns one cause as predominant.

Central banking did not always appear when free banking disappeared. There was often a long interval of monopoly note issue without central banking, as under the 'currency boards' established in many British colonies. Even where a central bank existed, it sometimes took many years to acknowledge its role as regulator of and lender of last resort to commercial banks. Until the Bank of England rescued Baring Brothers in 1890, for instance, some of the Bank's directors continued to resist Walter Bagehot's suggestion that it should not behave as an ordinary commercial bank.

I now want to examine the reasons why free banking ended in some of the leading nations.

China. Several times, from the eleventh to the twentieth centuries, Chinese governments outlawed free banks' note issue to force acceptance of their own note issues. In 1935, China abolished free banking for the last time as part of a policy to confiscate private silver stocks and to impose government fiat money as the monetary standard. Free banking continued in the extraterritorial zones of Chinese treaty ports until ended by Japanese occupation in December 1941.

France. The first Western country to replace free banking with monopoly issue was France, whose initial free banking era lasted just seven years. The Revolutionary government foreswore note issue after its *assignat* fiat currency collapsed in 1796. Several free banks soon sprang up in Paris. They succeeded in maintaining convertibility where the government had failed. Napoleon held stock in one, the Bank of France, and in 1803, he stripped competing banks of their right to issue notes (see chapter 9).

Sweden and some other cases. Heads of state elsewhere rarely had the personal financial motive for favouring note-issue monopoly that Napoleon did, but they did have motives of political self-preservation. When war or extravagant peacetime expenditures threw a government into debt, concentrating note issue in a favoured bank that would lend to it, or emitting government notes, was often less unpopular than raising taxes. The use of the printing press as a tool of government finance was commonplace. Nine of the approximately sixty free banking episodes listed in Table 2.1 ended because of overt seigniorage considerations. Sweden, where no note-issuing bank failed during seven decades of free banking, seems to have been one. Legislative hostility towards competitive note issue was not the result of any theory of monetary policy or unfavourable experience with free banking in Sweden (Jonung 1989: 16, 29).

Causes of free banking's demise: theoretical rationales

Britain. Britain was the prototypical case of central banking triumphing because its partisans seemed to have the stronger arguments. In an intense debate that lasted for two decades up to 1845, hundreds of economists, bankers and politicians argued for and against free banking (see White 1984b: 51–80). The so-called Currency School believed that the depressions and bank failures England suffered in 1825–26 and 1836–37 showed the instability of competitive note issue. (English banks did not suspend convertibility into gold during either panic.) The Currency School argued that the cause of business cycles is that unregulated note currency behaves differently from purely metallic currency. As a remedy, they advocated centralising note issue with the Bank of England and subjecting the Bank to an iron-clad rule requiring it to hold 100 per cent marginal gold reserves for all notes issued above a fixed ceiling.

Among the Currency School's opponents, the Free Banking School pointed to the Scottish banking system's performance. They argued that Scotland's comparative immunity from the crises that beset England was evidence that English note issue was too much regulated rather than too little regulated. (A third group, the Banking School, was silent on this aspect of the debate.) In over a century of free banking, Scottish noteholders and depositors lost only £32,000, whereas losses in London (which had fewer inhabitants than Scotland) were twice as much in 1840 alone (Aytoun 1844: 678, cited in White 1984b: 41). The Free Banking School argued that a system of large, competing note-issuing banks would be more stable than the system that existed at the time in England. To that end, they advocated abolishing the law that English note-issuing banks could have no more than six stockholders, which the British Parliament did in 1826. They also advocated, but unsuccessfully, abolishing a provision of the new 1826 law, which forbade banks with more than six stockholders from issuing notes if they established branches in the London region, the Bank of England's seat.

The Currency School's arguments convinced the government of Sir Robert Peel, which in the Bank Charter Acts of 1844 and 1845 forbade new banks in England, Wales and Scotland from issuing notes and froze the circulation of existing note-issuers other than the Bank of England, at a total of £8.5 million, which was approximately their average circulation at the time (Capie and Webber 1985: 211). The 1844 Act fixed a ceiling above which the Bank of England had to hold 100 per cent gold reserves against its note issue at £14 million (the Bank's note circulation was then about £21 million). However, the Act provided that the Bank of England could partly absorb the 'uncovered' note issues of banks that failed or gave up the right of note issue. The Bank of England thus became the central bank of England, Wales and Scotland. A similar law for Ireland in 1845 made the Bank of Ireland in effect the central bank there. (A few Scottish and Northern Irish banks continue to issue notes today, but beyond a combined uncovered issue of less than £5 million, they must have reserves at the Bank of England at least equal to the amount of their note issues, and they are prohibited from issuing notes for more than £5.) The Bank of England eventually absorbed the note issues of all English and Welsh banks. Two Bank of England officials drafted the 1844 Bank Charter Act (Clapham 1945: vol. 2, 178–79).

The Currency School was preoccupied with note issue, and it failed to understand that deposits are just as much as part of the money supply as notes. The English financial crises of 1847, 1857 and 1866 exposed the flaw in Currency School doctrine. The Bank of England averted runs only by temporarily exceeding the legal limit on its note issue. Although free banking would have automatically accommodated changes in the public's demand to hold notes, there was little thought of returning to it, because, as Walter Bagehot (1912: 68) remarked, it would have seemed as great a break with tradition as abolishing the monarchy. Through the fixed-rate convertibility of commercial bank deposits into Bank of England notes, the Bank came to exercise control over commercial banks.

British Colonies. After Peel's Bank Charter Acts, all non-self-governing British colonies eventually wrote a form of Currency School doctrine into law. They established colonial currency authorities or currency boards, which in some cases held gold or silver, but more frequently sterling-denominated assets, equal to 100 per cent of their monopoly note issues. In Mauritius, Sri Lanka (Ceylon) and the Bahamas, currency boards were the result of local government distrust of banknote issue after a local bank failed. Elsewhere, though, the main reason for currency boards was the triumph of Currency School ideas (Schuler et al. 2024).

France. In the late nineteenth century, several European countries had contests between partisans of free and central banking that mirrored the British monetary debates. Economists there appropriated wholesale the ideas of the Currency, Banking and Free Banking schools, and frequently referred to English or Scottish banking experience to illustrate their arguments. In France, vigorous debate occurred when France annexed Savoy in 1860. The Pereire brothers, who directed the huge investment bank Credit Mobilier, tried to challenge the Bank of France's note monopoly by taking over the note-issuing Bank of Savoy. However, the Bank of Savoy had to give up its note issue, so the effort came to naught.

Germany. In Germany, the Reichsbank was founded in 1875 to standardise the disparate coinage and note systems that had existed in the German states before unification. However, other means could have accomplished the goal just as well. Unrestricted private minting would have led to a uniform coinage, albeit one produced by multiple competing firms, as in the US before 1864. Similarly, unrestricted branch banking would have led to nationwide par acceptance of all banks' notes, as it did in Scotland and other systems. German officials mistakenly believed that a central bank was necessary for a discount policy, and proponents of free banking were unable to convince them of the self-correcting nature of the price – specie flow adjustment. The statutes governing the Reichsbank consequently imitated Peel's Bank Charter Acts (Smith 1990: 68).

United States. Central banking in the US, as in England, resulted from dissatisfaction with the existing system's flaws. The American banking system was among the most regulated of all 'free' banking systems. Legal barriers to branch banking prevented the US from developing the large, stable nationwide banks that characterised most free banking systems elsewhere. There were marked regional differences in bank stability before the American Civil War, and banking systems generally experienced less trouble in states where regulation was less extensive. The New England states, which had few significant regulations except for prohibitions of branch banking, were known across the country for sound banking, and they weathered the panics of 1819, 1837 and 1857 with little difficulty. They suspended convertibility only in 1837, whereas banks in other regions suspended convertibility on many other occasions before the Civil War. The private Suffolk Bank of Boston developed into a central clearing agent for banks all over New

England, and its strict policies kept the note issues of other banks closely in line with the demand to hold notes. In other regions, local authorities often aided local banks in frustrating outsiders' attempts to exercise the legal right to convertibility on demand (Hammond 1957: 178–80, 549–56).

The first nationwide bank charter laws, passed during the Civil War, prohibited banks that wanted to issue notes from having any branches, and required them to hold government bonds as collateral for their note issues. The bond-deposit requirement severely constrained note supply during seasonal peaks of demand for notes. In 1873, 1893 and 1907, note shortages developed, and notes went to a premium against deposits (for example, a cheque for $100 would only 'buy' $97 of notes). Retail trade would have ground to a halt had not clearing houses and other issuers created emergency notes, which were illegal but immensely useful (Sprague 1977; Timberlake 1984).

Canada had an entirely different experience from the US, just as Scotland had had a different experience from England. Canadian banknote issues were limited to the amount of the bank's paid-in capital, but for many years the ceiling was too high to have any effect. Canada was little affected by the American panics of 1893 and 1907, and Canadian banknotes circulated widely in the US during these panics (Denison 1966: vol. 2, 260, 284–85). Many American observers admired the Canadian system's branch networks and its 'asset-based' currency, so called because banks did not have to hold any special collateral against note issues. The 1894 Baltimore convention of the American Bankers' Association proposed remodelling American note issue along Canadian lines, but anti–gold standard agitation and opposition from small banks opposed to competition from branch banks prevented the plan from receiving a hearing (Hepburn 1968: 381).

Though Canada suffered no actual note shortage in 1907, Canadian banks were approaching the legal ceiling on their note issues, which raised the spectre of American-style shortages in the future. In 1908, Canada amended its banking law to allow note issue of up to 115 per cent of bank capital during the months of peak demand, and in 1913 loosened note-issue limits still further. The changes proved adequate to prevent troubles. The US, on the other hand, resolved the problem of inelastic note supply by passing the Federal Reserve Act in 1913. In the American debate over the solution to inelastic note supply, most bankers, economists and politicians sought intellectual guidance from European central banking systems rather than from Canada's free banking system. As an interim measure to ease note shortages, the 1908

Aldrich–Vreeland Act authorised clearing houses to issue emergency notes without specific collateral. When World War I broke out in August 1914, the Federal Reserve had not yet begun operations, and clearing-house currency issues efficiently met the increased demand for notes, with no currency premium. Friedman and Schwartz (1963: 172) have commented that Aldrich–Vreeland currency had the elasticity that the Federal Reserve brought, without the Fed's inflationary potential. Abolishing bond-deposit requirements would have made the Federal Reserve's original rationale superfluous.

Other countries. World War I was a great divide in free banking history. Most nations that had free banking suspended convertibility during the war. Canada, New Zealand, South Africa and other countries took a step towards central banking during the war when they imposed inflationary war-finance measures. After the war, the 1920 Brussels and 1922 Genoa monetary conferences of the League of Nations recommended that central banks be established in the new nations created after the war and in older countries. The League's recommendation proved influential. Free banking by then had no significant support among economists. The chief reason appears to have been that economists had little understanding of the difference between free banking and central banking. The controversy over gold versus silver as the monetary standard, and then the debate over the quantity theory of money, diverted attention from the earlier debates between the Currency, Banking and Free Banking Schools, which, as a practical matter, the Currency School seemed to have won.

The Great Depression was the crowning blow to free banking. Even countries that suffered no bank failures, such as Canada and New Zealand, introduced central banking, because prevailing opinion held that it might be able to help end the Depression. Central banking evidently did not end the Depression, but there was no thought of returning to free banking. One by one, governments imposed central banking on the remaining free banking systems. The last place where free banking existed was, apparently, South West Africa (Namibia), where free banking lasted until 1962 (Crossley and Blandford 1975).

Causes of free banking's demise: crises

Central banking in the countries just discussed originated in government cupidity or in unwillingness to solve contemporary banking troubles by deregulation. However, there were countries where free banking passed from the scene because financial crises created a demand for more bank regulation. A previous section touched on the crises that led to the end of free banking in Argentina, Belgium, Sri Lanka, Chile and Uruguay. This section examines the remaining cases: Japan, Italy, Mauritius, the Bahamas, Southern Africa and Hong Kong.

Japan. The bond-collateral system that Japan introduced in 1872 was intended to support the country's monetary system. Banks were to buy bonds from the government with gold. The government was then supposed to use the gold to restore convertibility of its inconvertible notes. However, it never realised these intentions, and printed increasing quantities of notes to finance its expenditures. In 1876 government notes traded at a discount to their face value in gold and silver. The expense of suppressing the Satsuma rebellion the following year led to further inconvertible issues. Banks were released from buying gold bonds as collateral against banknote issues; instead, the government encouraged banks to prop up the price of inconvertible bonds that it had issued to compensate former feudal lords. The inflation of the late 1870s provoked discussion of how to return to the gold standard, and the government decided to scrap bond-collateral issues and its own inconvertible issues, replacing them with the notes of a central bank, the Bank of Japan, which opened in 1882 (Soyeda 1971: 425–28; Conant 1911: 12).

Italy. The collapse of the Banca Romana in 1893 prompted Italy's government to reappraise its free banking system. The banks of issue in the various states had come into competition with one another as the country achieved unification. The former monopoly issuer in the Papal States, the Banca Romana, was bankrupt, but the national government propped it up for political reasons. That situation continued for over twenty years, until in 1893 the economist Maffeo Pantaleoni made public a secret government audit revealing the true state of the bank's finances. The Banca Romana failed, and two other note-issuing banks hastily merged with the Bank of Italy. Legislation passed in the aftermath of the failure preserved plural note issue, but the Bank of Italy effectively supervised the other two note-issuing banks and the Bank of Italy became the monopoly note issuer in 1926 (Ferraris 1911).

Mauritius. In the British colony of Mauritius, one of the two local banks failed in 1847 (Crick 1965: 302). It is possible that the other bank's charter limited its note issue sufficiently to prevent it from filling the added demand for notes. The government decided, however, that a state monopoly note issue would be safer than private one, though it left deposit banking competitive.

Bahamas. In the Bahamas, the only locally chartered bank failed in December 1916 (although a British colonial bank also circulated notes in the Bahamas) and the Bahamas government reacted in the same way as the Mauritius government.

Southern Africa. In South Africa and in Botswana (then called Bechuanaland), where the only banks were branches of South African banks, there was an inflation during World War I when the country in effect abandoned the gold standard and made banknotes legal tender. A central bank was proposed as the remedy and it opened in 1920 (Conant 1969: 805).

Hong Kong. Hong Kong ended free banking in 1935 in the wake of China's unexpected decision to abandon the silver standard, which disrupted the basis of their trade. The government confiscated the banks' silver, and tied the Hong Kong dollar loosely to the British pound, which itself was no longer convertible into gold at a fixed rate.

Conclusions

Free banking was far more widespread than economists have hitherto recognised. There were approximately sixty cases of it. The spontaneous evolution of free banking in all countries that had banking but lacked monopoly note issue indicates that free banking was indeed 'the natural system', as Walter Bagehot had earlier argued (1912: 67).

On balance, free banking was stable. Only in a handful of episodes did the banking systems as a whole suffer runs or suspend convertibility into gold or silver during peacetime. All of the runs had identifiable causes and none was random. (Present-day central banks do not suffer runs for reserves, but they have cast off the 'nominal anchor' of convertibility that once guaranteed relative stability in the value of central bank liabilities.)

There was no apparent tendency towards monopoly in any free banking system. Many systems saw a similar pattern of a large number of banks entering the field in early years, only to fail or merge with others until few were left. However, the ranks never diminished until just one bank was left; there remained plural note issue. The attempts of free banks to form cartels were always unsuccessful, since cartels were undermined by uncooperative or cheating banks.

Central banking was an imposition, not the outcome of the natural evolution of free banking. Free banking systems showed no apparent tendency to develop a lender of last resort – or to need one. The experience of the little-regulated banking systems of Scotland and Canada indicates that deregulation would have solved the problems that plagued the heavily regulated English and American free banking systems. Curiously, it was regulation that drove Britain, the US and other countries to adopt central banking. Nor do free banking systems seem to have had significant public-good problems that are often held to make central banking necessary. As Vera Smith (1990: 4–5) wrote in her study of nineteenth-century banking controversies:

> An examination of the eventual decision in favour of a central banking as opposed to a free banking system reveals in most countries a combination of political motives and historical accident which played a much more important part than any well-considered economic principle.

Of course, free banking was not perfect; in a world populated by imperfect people, no institution can be. Some bank managers made inept decisions; some noteholders and depositors suffered losses. Overall, though, free banking was quite robust, and it proved itself able to thrive in a great variety of economic and cultural conditions.

The often-heard claim, first made by Bagehot (1912: 68), that central banking is irreversible, rests more on assertion than on solid theory or careful historical investigation. In the past, free banking has replaced monopoly note issue or monopoly banking in countries as diverse as Scotland, New Zealand, Costa Rica and Brazil. Central banking persists today only because government self-interest and received economic theory have combined to impose it. Not long ago, most economists considered telephone systems to be natural monopolies, and justified state ownership of the telephone system in many countries on the grounds that it was more efficient than private ownership. Today they know better. Perhaps they will change their minds about natural monopoly in banking when they consider the historical record of free banking.

Table 2.1 Free banking episodes

(1) Country	*(2)*	*(3)*	*(4)*	*(5)*	*(6) Main sources*
Argentina	1887–1890	A, B, D	crisis	1935	Williams 1920; Quintero-Ramos 1965
Australia (UK)	1817–1910	b, e	theory	1911	Butlin 1953, 1986; Dowd, ch. 3, this vol.*
Bahamas (UK)	1889–1921	unknown	crisis	1974	Conant 1969
Belgium	1835–1851	E	crisis	1851	Mardini and Schuler, ch. 4, this vol.*
Belize (UK)	1904–1938	b	theory	1981	Conant 1969; Wyeth 1979
Bolivia	1869–1913	none	theory	1929	Benavides 1972; Cabezas Villa 1941
Botswana (UK)	1897–1921	none	crisis	1975	Onoh 1982
Brazil	1836–1854	A, B	seigniorage	1920	Calogeras 1910; Arinos 1973; Pelaez 1981
	1858–1866	A, B, E	seigniorage		
	1889–1896	A, B, D, F	seigniorage		
Brit. W. Indies (UK)	1837–1951	none	theory	1964	Crossley and Blandford 1975
Canada (UK)	1817–1914	b, d		1934	Schuler, ch. 5. this vol.*
	1914–1933	A, B	theory		
Chile	1830s–1839	none	theory	1925	Ross 1910; Subercaseaux 1922
	1849–1850	none	theory		
	1854–1898	A, B, C, D	crisis		
China	995?–1008?	G	cartelised	1942	Yang 1952; King 1965; von Glahn 1996; Selgin, ch. 8, this vol.*; Gottschang, ch. 12, this vol.*
	mid 1100s–1160		crisis		
	1180–1203		seigniorage		
	1661?–1941	G	invasion		
Colombia	1865?–1886	A, B	theory	1923	Meisel, ch. 7, this vol.*
Costa Rica	1863–1885	A, B	seigniorage	1936	Soley Güell 1926; Villalobos 1981
	1902–1921	a, d	seigniorage		
Ecuador	1859–1926	A, B	theory	1928	Carbo 1978; Estrada Ycaza 1976
El Salvador	1880–1934	a, D	theory	1934	Canales 1942; Rochac 1984
Eswatini (UK)	1897–1921		crisis	1921	Crossley and Blandford 1975
Fiji (UK)	1873–1914	unknown	theory	1975	Crick 1955, ch. 2; Rogers and Cantrell 1989
France	1796–1803	none	seigniorage	1848	White 1990a*; Nataf, ch. 9, this vol.*
	1815–1848	E, F	seigniorage		
Germany	1821–1833	E, F	theory	1875	Riesser 1977; Klein 1982
	1836–1875	E, F	theory		
Greece	1839–1920	A, F	theory	1928	Kyrkilitsis 1968; Freris 1986

Table 2.1 (*cont.*)

Guatemala	1877–1926	A, B	theory	1926	Prober 1957; Quintana 1971
Guyana (UK)	1836–1951	b, d	theory	1966	Conant 1969, ch. 18; Thomas 1965
Honduras	1886–1889	none	unknown	1950	Castillo Flores 1974; Cruz Reyes 1981
	1912–1950	b, d	theory		
Hong Kong (UK)	1845–1935	c	crisis	1988	King 1957, 1987, 1988
India (UK)	1770–1862	c, d	theory	1934	Bagchi 1987
Italy	1837–1894	A, E,F	seigniorage	1926	Mingardi, ch. 11, this vol.*
Jamaica (UK)	1836–1958	b	theory	1961	Barclays Bank 1938
Japan	1600s–1882	A, B, D	crisis	1882	Soyeda 1971; Shinjo 1962
Lesotho (UK)	1902–1921		crisis	1921	Maruping 1989; Crossley and Blandford 1975
Luxembourg	1873–1883	none	theory	1922h	Weiller 1981; Croisé and Link 1988
Macau (Port.)	1800s–1944	e	theory	1980	Ma 1987
Malawi (UK)	1894–1940		theory	1956	Henry and Siepmann 1963
Malaysia (UK)	1888–1909	b, c	theory	1958	Chiang 1966; Drake 1967
Malta (UK)	1809–1878	unknown	theory	1964	Crick 1965, ch. 13(b)
Mauritius (UK)	1812–1813		bank shut	1967	Mauritius Commercial Bank Limited 1963; Crick 1965; Nelson 1984
	1813–1825		bank shut		
	1832–1849	unknown	crisis		
Mexico	1864–1913	e, f	theory	1925	Conant 1910; Bett 1957
Namibia (SA)	1915–1962	none	theory	1962	Crossley and Blandford 1975
New Zealand (UK)	1840–1850	c	theory	1934	Sayers 1952; Chappell 1961; Hargreaves 1972
	1856–1914	c, b			
	1914–1933	A, B	theory		
Paraguay	1889–1907	A, b	theory	1944	Rivarola 1982; Fernandez 1982, 1984
Peru	1862–1887	A, B, d	theory	1922	Ferrero 1953; Alcazar 1957; Zegarra, ch. 13, this vol.*
	1914–1922	unknown	theory		
Philippines (US)	1916–1942	A, b, E	theory	1949	Stanley 1974
Portugal	1850–1891	E, F	seigniorage	1891	Essars 1971
Samoa (NZ)	1914–1921		theory	1959	Chappell 1961
Singapore (UK)	1849–1909	b, c	theory	1958	Nelson 1984; Lee 1986
South Africa (UK)	1837–1921	d, f	crisis	1921	Arndt 1928; Sayers 1952
Spain	1844–1874	E, F	seigniorage	1874	Tortella Casares 1977; García Ruiz 1989*

Table 2.1 (*cont.*)

Sri Lanka (UK)	1844–1888	b, C	crisis	1950	Gunasekera 1962
Sweden	1831–1901	C, e, g	seigniorage	1901	Flux 1910; Jonung, ch. 15, this vol.*
Switzerland	1834–1907	C, e, F	theory	1907	Landmann 1910; Weber, ch. 11, this vol.*
Thailand	1888–1904	none	seigniorage	1942	Tavedikoul 1939; King 1988
UK:					
Channel Islands	c.1797–1914	none	theory	1914	McCammon 1984
England, Wales	c.1668–1844	C, E, F	theory	1844	Gilbart 1865; Pressnell 1956
Ireland	c.1693–1845	c, E, F	theory	1943	Bodenhorn, ch. 10, this vol.*
Isle of Man	1802–1961	d	theory	1961	Clay 1869; Quarmby 1971
Scotland	1716–1845	c, g	theory	1845	White 1984b,* ch. 14, this vol.*
USA	1782–1863	c, D, E, F		1914	Dowd, ch. 17, this vol.*
	1863–1914	B, C, D, F	theory		
Uruguay	1865–1896	b	crisis	1896	Lezana 1956; Joslin 1963
Venezuela	1839–1850		banks shut	1940	Crazut 1970; Pardo 1973
	1861–1940	b	theory	1940	
Zambia (UK)	1906–1940		theory	1956	Reserve Bank of Zimbabwe 1983
Zimbabwe (UK)	1892–1940	none	theory	1956	Henry and Siepmann 1963

Column (1). Colonial or mandatory power during part of all of free banking period: NZ, New Zealand; Port., Portugal; SA, South Africa; UK, United Kingdom; US, United States.
Column (2). Free banking era.
Column (3). Restrictions on bank freedom. Capital letters indicate severe restrictions, lower-case letters, mild ones. The list is suggestive rather than exhaustive. a, government-induced suspension of specie payments begun in peacetime, usually caused by government currency debasement; b, government legal-tender note issues alongside free banknote issues; c, note issue restrictions (economically binding issue ceilings, small-denomination restrictions); d, economically binding reserve or bond-collateral requirements; e, barriers to entry (chartering restrictions, limits on number of stockholders, minimum capital requirements that significantly limited competition); f, branching restrictions; g, other (economically binding usury laws, frequent forced loans to government, etc.).
Column (4). Reason free banking ended; crisis, bank failure or suspension of payments prompting note issue monopolisation; seigniorage, the government attempt to raise revenue by monopolising the currency; theory, laws passed to impose a theoretical ideal (such as British Currency School programme).
Column (5). Central banking began. Many countries had monopoly note issue but no fully fledged central bank for a while after abolishing free banking; h, the Belgian central bank became Luxembourg's central bank.
Column (6). * The author discusses the episode as a case of free banking.

The best previous compilation of free banking episodes is *A History of Modern Banks of Issue* by Charles Conant, first published in 1896. The sixth edition (1927) was reprinted in 1969. Other world surveys are Sumner

(1971b), Hübner (1854), Lévy (1911), Dierschke and Mueller (1926) and Willis and Beckhart (1929). More limited surveys are Kindleberger (1984) (Western Europe), Sayers (1952) and Crick (1965) (the British Commonwealth), Cameron (1967, 1972) (some European countries, Japan and the US), Young (1925) (Central America), Onoh (1982) (Africa) and King (1957) (British East Asia). Hahn (1968: 43–44, 62–81) and Kock (1974) have world lists of central banks. Pick (1986) and other numismatic publications are useful for information on otherwise obscure cases of free banking. The British government's colonial reports often have brief descriptions of colonial banking. Finally, of course, there are primary sources such as bank archives, newspapers and statutes.

Addendum (2023)

I have revised the table to include several cases unknown to me when writing the original version of the chapter, but I have left the narrative unchanged except to correct a few errors. Other errors may remain.

3 FREE BANKING IN AUSTRALIA

Kevin Dowd

Australia experienced one of the most interesting historical experiences of free banking. Australian banking was relatively free for almost a century, from the establishment of the first banks in the second and third decades of the last century until well into the twentieth, and fully fledged central banking only arrived with the establishment of the Reserve Bank of Australia at the comparatively late date of 1959. The Australian experience of free banking is of particular interest to students of banking history because the legal framework within which banks operated was perhaps the least restrictive of any on record, and the banking system was largely free of significant government intervention until the 1890s. Australia never had 'pure' laissez-faire in banking, but Australian banks operated under relatively innocuous legal restrictions compared to many 'free banks' elsewhere, and the legal restrictions that did exist were frequently disregarded anyway. The comparative purity of the Australian case ought therefore to give us a reasonably fair indication of how well the theory of free banking has worked in practice.

Australian free banking is also of interest for another reason. In the early 1890s Australia experienced a banking crisis of a severity never witnessed in Australia before or since, a crisis whose severity superficially compares to that of the English crisis of 1825–26 or the banking collapses of the US during the early 1930s. But unlike these other crises, the Australian one occurred while banking was still in some ways quite free, and many writers have argued that the freedom of Australian banking contributed in a major way to its severity. Unrestricted competition led banks to overextend themselves, so the argument goes, and the collapse of the land boom in the late 1880s left them exposed to a crisis that most of them lacked the resources to ride out. Had there been a monetary authority to limit competition and ensure that prudential standards were maintained, on the other hand, then the banking system would not have overreached itself to the extent that it did, and the ensuing collapse ought to have been avoided. Generations of Australian economists have consequently believed that the crisis of the 1890s demonstrates that unregulated banking is inherently unstable and have concluded that some form of government control is needed to keep this instability in check.

The Australian experience is unique in that it is the *only* recorded case where free banking has been associated with a major banking collapse. Free banking systems elsewhere witnessed occasional bank failures, but none ever experienced a crisis comparable to the Australian one, and the supporters of free banking need to reconcile their theory that banking laissez-faire is stable with the claim that the Australian banking crash indicates that it is not. Contrary to received opinion, however, the Australian experience is in fact quite consistent with the predictions of free banking theory. The depression of the 1890s was fundamentally a 'real' phenomenon driven by forces outside the bankers' control, and these forces overwhelmed the banks as well as the 'real' economy. The bank failures were also heavily influenced by government intervention, especially in Victoria, and these interventions destabilised the banking system and encouraged banks to suspend to take advantage of new laws which allowed them to reconstruct on advantageous terms. The evidence on reserve ratios and capital adequacy also provides little support for the hypothesis that the bank failures were caused by the banks' previous overexpansion. It is in any case somewhat misleading to talk of bank 'failures' in an unqualified way when virtually all of these banks were subsequently able to reopen successfully. The timing of events lends also further support to the view that the primary direction of causation was from the real economy to the banking system, and the timing of the downturn is quite inconsistent with any claim that a banking 'collapse' pushed the economy into a steep depression. The crisis of 1893 was not what it might appear to be.

The early history of money and banking in Australia

The blueprint for the first Australian colony in New South Wales in 1788 made no allowance for the provision of money or banking. Its monetary arrangements were consequently 'almost all ad hoc temporary makeshifts' (Butlin 1953: 4–5):

> Foreign coins, arriving haphazardly in trade or in officers' purses and convicts' pockets, acquired local acceptability and brief legal recognition. But they did not suffice, and from the simple expedient of settling debts with

> promissory notes grew, in the first decade of the nineteenth century, the practice of regular issue by all and sundry of small-notes …
>
> Makeshifts and ad hoc expedients to provide for payments between government and individuals and amongst individuals thus merged into a pattern … The core of the monetary system was the Commissariat store with its Treasury bills for public and external payments, its Store receipt, its loans in kind; outside its range private local transactions were fulfilled by supplanting its Store receipts with barter and a variety of private note issues.

Once it had established itself the new colony began to prosper. The settlers took to farming and whaling, and by the second decade of the nineteenth century they were already exporting wool to England. The private note issues continued to prosper, and repeated attempts by Governors King, Bligh and MacQuarie to suppress them came to nothing. The first bank – the Bank of New South Wales – was set up under MacQuarie's patronage in 1817, but its note issues were small and had relatively little impact on the non-bank issuers. A number of new banks were set up in the 1820s, however: the Waterloo Company (1822), the Bank of Van Diemen's Land (1823), the Bank of Australia (1826), among others. And (Butlin 1953: 9)

> with them died at last, in the metropolitan centres but not in the country, miscellaneous issues by individuals and stores. In the country such issues were progressively pushed further and further outback as banks advanced, to be (virtually) eliminated only after a full century. What the Bank of New South Wales had heralded they made commonplace, 'the ordinary banking business of deposit, discount and exchange'.

These banks were all unit (i.e. one-branch) banks that operated under the English law that restricted all banks except the Bank of England to be partnerships with no more than six partners, and all partners bore an unlimited liability for the debts of the bank. These banks were initially allowed to issue notes for any amount, but a domestic British ban on notes under £1 was extended to Australia in 1826.

It took some time to resolve the issue of the monetary standard. Foreign denominations circulated side by side with sterling for a number of years. One Governor (MacQuarie) introduced his own dollars – 'holey' dollars, imported dollars with a hole stamped in them – which were overvalued locally and hence circulated by virtue of Gresham's Law, while another, Governor

Brisbane, tried in 1822 to have the Spanish dollar made the legal unit of account and the basis of the circulating medium. This attempt was apparently well on the way to success when the UK government intervened and imposed the gold-based pound sterling as the official currency and ordered the colony to use British coins. This was the origin of the Australian pound (Butlin 1953: 8; 1961: 10). Dollars then disappeared relatively quickly in New South Wales, but survived for some time in Tasmania. The value of the Australian pound was now linked to gold, but it could fluctuate by a margin that reflected the costs of shipping gold to or from England to exploit any discrepancy between its par and market values. Arbitrage therefore kept the value of the Australian pound reasonably close to par. The links between the Australian pound and gold were tightened further by the establishment of a branch of the Royal Mint at Sydney in 1855, and later on by the opening of other branches in Melbourne and Perth. The Australian Mints reduced the costs of arbitrage – one could now carry out arbitrage operations without having to ship gold to or from England – and thus narrowed the range within which the value of the Australian pound could fluctuate. The result was that in the sixty years following the establishment of the Mint in Sydney, the value of the Australian pound was almost always within 2 per cent of sterling, and usually much closer.

The development of Australian banking

The transformation of the banking system

The 1830s saw a large pastoral boom – half a continent was occupied in ten years – and the inflow of large amounts of British capital into Australia. The first chartered bank – the Bank of Australasia – obtained its charter in 1835 and a 'flurry of colonial bank formations' followed in the late 1830s (Butlin 1953: 9, 10). The banking system was then rapidly transformed into one that was, 'for its time, mature and sophisticated' (Butlin 1953: 11):

> In place of a few localized unit banks relying on capital for loanable funds, content with a restricted business and averse to serious competition, there were a number of large banks – all the important colonial banks had greatly expanded – engaged in aggressive competition. A scramble for deposits which had pushed up deposit rates to high levels had established deposit banking as the standard practice. Competition for business as settlement spread had caused abandonment of unit for branch banking ... One aspect

> [of this transformation] was the rapid growth of a systematic foreign exchange market, primarily constituted by the English banks, outside and independent of the Commissariat.

Branching enabled banks to economise on operating costs (e.g. by holding fewer reserves per branch, and operating an inter-branch reserve market) and enabled them to provide specialist services (such as the provision of foreign exchange) at lower cost. Branch banks were also likely to have a more stable capital value because branching enabled them to protect themselves against adverse conditions in one locality or region by diversifying their risks.

The legal framework

The chartering of the Australasia in 1835 prompted the UK Treasury to clarify its ideas on colonial banking, and these ideas were set out subsequently in the Colonial Bank Regulations of 1840. These Regulations were meant to provide broad guidelines for colonial governors who were faced with petitions and bills to grant charters. Although they were sometimes modified in practice, the main principles were that banknotes should be payable on demand; the personal liability of shareholders should be limited to twice the value of subscribed capital; following a 'real-bills' view of the business of banking, banks were not allowed to lend on land, or to deal in real estate or merchandise, except to settle debts; there should be no notes under £1; banks should provide regular statistics to the relevant authorities; and there were certain restrictions on total indebtedness. The revised Regulations of 1846 also stipulated that the note issue should be limited to the amount of paid-in capital (Butlin 1986: 89–90)

These conditions were not as restrictive as they might appear. The note and indebtedness restrictions were seldom if ever binding (e.g. Butlin 1986: 93). The ban on lending against land threatened to be more restrictive, but the regulation was always accompanied by the qualification that a bank could subsequently acquire property in settlement of a debt, and it was not too difficult to devise ways to keep transactions strictly within the letter of the law while violating its intent (Butlin 1986: 94). In any case, as Pope (1987: 21) noted:

> Formal codes were not, however, taken very seriously. In the vernacular of the times, bankers drove a coach and horses through the hampering

> limitations of the legislation. The National Bank, almost from its inception [in 1859] lent on land … What the National was doing so too were the others, land based advances possibly accounting for as much as two-thirds of the banks' total advances business by the 1880s. According to Turner '… the limitations [of the acts and charters] are practically ignored, in some cases by a special adaptation of the form of the entry, but frequently by an entire disregard of them'.

The legal framework under which banks operated changed further in the third quarter of the century. The colonies became masters of their own banking laws as they became self-governing from 1856. (Western Australia became self-governing in 1890.) Banks with earlier charters were still nominally subject to the previous system of regulation, but (Butlin 1986: 92)

> none of these [regulations] was, in practice, a serious limitation on a bank's freedom and the colonies soon began to diverge from the canon basis provided by the Regulations. In the event, the only requirement that survived in more or less uniform terms was the requirement to make statistical returns.

One change, from 1863 onwards, was the gradual amendment of colonial banking laws to make shareholders' liability for the note issue unlimited (Butlin 1986: 92–93). Tasmania also started to tax the note issue in 1863 and the other colonies followed suit (Butlin 1986: 94):

> The only purpose behind these levies was the raising of money … The usual rate, two per cent, was about a half, or a little less, of what was generally accepted as the net profit on issue accruing to the banks. In time this was to make the banks dubious of the advantage of continuing note issue and readier to contemplate acceptance of government monopoly of issue.

This period also saw the Treasury move towards eliminating the chartered banking system and the Treasury supervision that went with it (Butlin 1986: 89). Charters had been sought earlier because they were the only way to obtain the valuable privilege of limited liability, but a British Act of 1862 had allowed banks access to limited liability without the need for a special charter. (The limited liability was qualified, however, in that it did not apply to the note issue.) The Treasury then took the view that this Act provided all that was necessary, and that a special charter implied Treasury supervision and might be seen to imply some degree of government responsibility for a bank that had a charter. The Treasury therefore tended to refuse new charters and resist the renewals of existing ones.

Australian banking from the 1850s to the 1880s

The prosperity of the golden decade of the 1850s saw a massive expansion of Australian banking (Butlin 1986: 8):

> The eight trading banks operating in Australia when gold was discovered, had grown to fifteen by the end of the fifties. At the end of 1850 there was a total of twenty-four branches (including head offices); at the end of 1860 there were 197.

Some indication of this expansion can also be gleaned from the figures on notes, deposits and bank advances. Note issues grew from £447,000 in the first quarter of 1851 to £3,192,000 a decade later. Deposits grew from £2,932,000 to £14,583,000 over the same period, and advances grew by a comparable amount.

The next decade saw further growth in the banking system, though at a slower rate, as well as 'a flowering of fringe institutions' (Butlin 1986: 67):

> Most obvious were the building societies, multiplication of which was in response to the housing demand of the new population … Building societies had first appeared in New South Wales in the forties, and in greater numbers in the fifties. But whereas by 1860 in Victoria the total number of mostly short-lived terminating societies had been less than twenty, in the next ten years nearly fifty were established, and the permanent type of society was more usual. Other colonies had a similar story to tell.

This period also witnessed the rapid growth of savings banks. These were started to encourage thrift, and to counter the excessive drinking and gambling which threatened to leave convict emancipists, in the famous phrase, 'poor, vicious, unmarried'. At mid century there had been six small savings banks whose main investment was mortgages, but twenty years later their assets had grown nearly tenfold (Butlin 1986: 69). Savings banks were also encouraged by colonial governments which saw them as a means of securing cheap loans. The British model of using post offices as savings banks (Butlin 1986: 69)

> appeared to offer colonial governments … [which suffered] recurrent financial crises, the prospect of a steady flow of funds at moderate rates of interest, not as subject to parliamentary supervision as conventional public borrowing. This was crudely obvious in New South Wales, and not well concealed in Victoria and Queensland.

The financial system – the 'regular' (i.e. trading) banks, as well as the building societies, the savings and land banks, and other 'fringe' institutions – continued to grow until the early 1890s. All these institutions took in deposits and made advances of one sort or another, and competition for market share was fierce. The 1870s and 1880s witnessed a rapid expansion of branch banking, and institutions looked more and more to Britain to increase their deposits. Interest rates were lower in Britain than in Australia, so deposits in Australian banks were attractive to British investors and a comparatively cheap source of funds for the banks. The ratio of British to domestic deposits in Australia consequently rose from perhaps 10 per cent in the mid 1870s to 40 per cent by the eve of the Depression (Pope 1989: 15–16). The relative market shares of the different types of financial institution also changed substantially over this period, with the trading banks losing ground to the fringe institutions. The trading banks' loss of market share was particularly large in the 1880s, and figures provided by Merrett (1989: 65) indicate that the trading banks' share of financial assets fell from around 90 per cent in 1883 to barely 65 per cent only a decade later. A major reason for their loss of market share was the trading banks' reluctance to participate in the land boom of the 1880s with the same enthusiasm as some of the 'fungoid' banks that mushroomed during that period on the strength of it. This conservatism was to stand them in good stead later when the boom ended and the economy went into depression.

The Australian banking system exhibited a number of distinctive features during this period:

- The banks formed a hierarchy. By 1892 there were 7 large banks with 100 branches or more spread across at least 2 colonies, there were 5 intermediate banks which tended to be concentrated in a single colony, and which had 50–99 branches each, and there were 11 small banks which tended to be concentrated in a single region, and to have less than 50 branches each (Schedvin 1989: 3; Merrett 1989: 73).

- Concentration rates were very high – four banks issued about half the deposits throughout this period (Pope 1989: 29) – but not one of these banks ever looked as though it would win the others' market shares. There was therefore no tendency towards natural monopoly. The experience of Australian free banking thus matches free banking experiences elsewhere (e.g. in Scotland, Canada or Switzerland, as the chapters by White, Schuler and Weber make clear) that banking exhibited economies of scale, but never showed any sign of natural monopoly.
- The note-issuing banks accepted each others' notes from a relatively early stage, and mutual acceptance seems to have facilitated the reflux mechanism whereby notes were returned to issuers, but clearing was often carried out on a bilateral basis. A (multilateral) clearing house was established in Melbourne in 1867, but Sydney only followed suit at the comparatively late date of 1895. The explanation appears to be that the small number of banks involved implied that the gain from moving from bilateral to multilateral clearing was relatively unimportant.
- Profit rates appear to have fallen over this period, presumably because of increased competition (Pope 1987: 7–8). Pope also notes elsewhere that bank profits do not appear to be excessive on an opportunity cost basis, and that 'the banks' profit rate lay in the middle of the league of corporate profit earners' (Pope 1989: 10).
- The interest rate margins – the spread between the banks' overdraft rates and their 12-month deposit rates – fell to a margin of around 4 per cent in the early 1870s and then stayed around that level (Pope 1989: 11). Boehm (1971: 211) notes that fixed deposit rates were very similar between the banks over the later part of this period (1884–94), and this evidence appears to suggest that the banks had effectively unified the Australian financial market. Note too that Australian interest rates were only about half as volatile as interest rates in the UK or the US (Pope 1989: 24–25), and the most obvious cause of this greater interest stability would seem to be the comparative freedom of the Australian banks from disruptive government or central bank interference.

An interesting feature of the Australian free banking system is that the note issue was never particularly important for Australian banks except in their very early years. The banknote/deposit ratio was 26.1 per cent in 1851, and fell subsequently to 7.4 per cent in 1881, 4.5 per cent in 1891, and 3.9 per cent in 1901 (Pender et al. 1989: 8). These figures are well below contemporary note/deposit ratios for the UK or the US, and seem to indicate a more mature banking system in which greater use was made of cheques and deposits. It also appeared to be generally accepted that the rapid reflux mechanism provided by the banks' clearing system made note overissue more or less impossible, and this point was so widely accepted that it was never even controversial in Australia. The Australian attitude to competitive note issue stands in marked contrast to attitudes in countries such as the UK or the US in the nineteenth century where the argument that competitive banks would not overissue notes was normally a minority view, and, indeed, a view that was considered almost completely discredited by the later part of the century.

Another remarkable feature of Australian free banking was the large number of branches that banks maintained. Branching was a significant form of non-price competition, and banks used branches to gain an edge over their competitors by distinguishing their product by means of its location (Pope 1988). The extent of Australian branching can be gauged from an article in the *Australasian Insurance and Banking Record* (*AIBR*) of 1880, which stated (quoted in Pope 1988: 2):

> There is … in England and Wales a banking office for every 12,000 persons; in Scotland, one for every 4,000; and in Ireland, one for every 11,000 of the inhabitants. Now in Victoria … we have a branch of a bank for every 2,760 colonists.

The corresponding figure in the US was one for every 9,200. It has long been argued that branches were a major drain on profits. An *AIBR* article of 1877 had earlier stated that (quoted in Pope 1988: 3)

> in a township where there is barely enough profitable business for one branch bank or banking agency, there are often two or three, each with its building and its staff of officers to maintain … But when two branch managers become rival candidates for the patronage of three or four petty traders, we cannot help considering that branch business is overdone.

These claims were echoed by the chief executive of the Australasia who at the end of the 1880s could list 42 branches that earned less than the 5 per cent the bank was paying on its deposits (Pope 1987: 5). Such claims have also been supported by other writers such as Blainey (1958).

These claims should none the less be viewed with some suspicion. The problem is that it is not in a bank's own interest to expand its branch network to the point where it erodes its own long-run profitability, and it is no defence to say that a bank will do it if it thinks its rivals will as well. It is not rational for a firm to choose to incur losses, and this holds true regardless of whether or not it expects its rivals to inflict losses on themselves. The 'evidence' for overbranching also needs to be treated cautiously. The fact that Australia had more branches per capita than other countries might simply reflect their underbranching, or, perhaps, the fact that Australia had a higher per capita real income and consequently a greater demand for financial services. The Australasia's 42 loss-making branches might also reflect the state of bank profitability at the time or the state of the economy, as well as the bank's own policy. Branches typically made a loss to start with, but were expected to make up for this loss later on. A bank with a lot of relatively new branches might therefore expect a significant number of them to make temporary losses, but those losses did not necessarily mean that the branches lacked viability in the longer term. Note, lastly, that the remaining 'evidence' in favour of overbranching is merely anecdotal, and an empirical study by David Pope (1988) was unable to find any significant evidence to support it.

A final noteworthy feature of Australian banking during this period is that the banks never managed to establish a viable cartel. They repeatedly tried, but their attempts were always undermined by competitive pressures (Pope 1988: 1, n. 1):

> The banks formed associations and collusive agreements to fix 'terms of business', more explicitly the rates to be charged on deposits, advances, bill discounts and foreign exchange. However, as the manager of the Union Bank (now ANZ) reflected, 'I do not think it has ever been believed that a strict adherence to the spirit and conditions of the [price] agreements has at any time prevailed and there is no Bank that hasn't … at some time or another trangressed the strict letter of it' … Banks cheated, agreements were ruptured and at times one of the biggest banks, the Bank of NSW (now Westpac), remained outside the agreements.

The Depression of the 1890s and the bank crash

The 1880s saw a major land boom, especially in Melbourne, and many financial institutions lent extensively against land-based assets. The boom continued into the late 1880s and the more experienced bankers began to perceive danger and advise caution. A contemporary observer, Nathaniel Cork, later said in a lecture to the (British) Institute of Bankers (Cork 1894: 181):

> Many in this audience can testify that the most experienced Australian bankers … emphatically discouraged this movement [i.e. jumping on the bandwagon]. They saw the danger to the depositors, the mischief to the colonies, and the fearful risk to the bank's [sic] concerned.

An example was the London executive secretary of the Bank of Australasia, Prideaux Selby, who warned the Bank's chief Australian executive in February 1888 that 'you Melbourne people are riding for a bad fall' (quoted in Pope 1989: 16). He had earlier warned against speculative lending on real estate, and had cautioned the Australian managers 'to be in no hurry to let out your spare funds – keep strong – profits must be sacrificed in the interests of safety' (quoted in Pope 1989: 18, n. 21).[1] These warnings were reflected in more cautious policies by a number of banks, including the big ones – the Australasia, the Union and the Bank of New South Wales – which tried to reduce their exposure to losses in the event that the property market turned down.

Concerted action then followed in October 1888 when the Associated Banks of Victoria[2] raised the 12-month deposit rate from 4 to 5 per cent and announced that advances on speculative real estate were at an end. The interest rise 'abruptly halted the reckless spirit of land speculation' (Boehm 1971: 254), and the chairman of the Associated Banks was able to report by the end of the year 'that the times were acute, that the land-banks were short of funds, that the Associated Banks were slowly gaining more funds but conserving them, and that speculators were short of money' (quoted in Blainey 1958: 137). House prices started to falter, and the property companies the following year were unable to recover their deposit market share from the 'sounder' institutions despite being willing to pay 1–2 per cent

1 These warnings were by no means isolated. Further examples are given in Boehm (1971: 246–47) and Merrett (1989: 67).

2 These were an association of the larger Melbourne-based banks.

more on their deposits (Boehm 1971: 256). Falling land prices then led to the collapse of a number of these institutions in 1889–90. Around the same time, the earlier inflows of British capital started to decline, and Australian terms of trade were already very adverse and becoming more so. The economy's momentum led real output to peak in 1891, but output declined very sharply thereafter. Blainey (1958: 141) reports that

> Melbourne felt the scarcity of British money early in 1891. The price of property slumped, smiting the weaker building societies and land-banks. The building industry crumpled, unemployment increased and trade became dull. The cheques passing through the Melbourne clearing-house fell from £150,600,000 in the last half of 1890 to £114,300,000 in the second half of 1891.

The year 1891 saw the first bank failures and the widespread collapse of the fringe institutions that had gambled their futures on a continuing land boom. The first outright bank failure, of the Bank of Van Diemen's Land, occurred in August, and the situation on the mainland rapidly deteriorated (Butlin 1961: 285):

> Late in July the Imperial Banking Company, a Melbourne mortgage bank, collapsed, to be followed in August by two similar and related institutions. In September there was a burst of failures in Sydney of land banks and building societies. In December the centre of disaster was again Melbourne, with building societies and mortgage banks collapsing in quick succession, including the Metropolitan and Standard Banks.[3]

Many of the building societies tried to meet the demands for withdrawals by relying on overdraft facilities with the Commercial Bank. The Commercial managed to keep them afloat for a while, but it eventually decided that it could no longer withstand the strain on its own position. It therefore called in its overdrafts in late 1891 and many societies were soon forced to close (Blainey 1958: 143).

3 These two institutions had only recently converted from being building societies, and the Metropolitan had only started to issue notes in January (Butlin 1961: 285). These institutions were two among a number that had commenced as building societies but transformed themselves into conventional banks.

The runs prompted – indeed, panicked – the New South Wales and Victorian governments to rush through emergency legislation at the end of 1891 to give beleagured institutions a chance to defer redemptions by removing the right of a single creditor to enforce liquidation. The result in New South Wales was the Joint Stock Companies Arrangement Act (1891), which stipulated that claims could be deferred if creditors holding three-quarters of the company's liabilities agreed to it. The reconstruction scheme would then become binding on all creditors, which meant that no single creditor would (normally) have a veto over it. The Victorian legislature, by contrast, passed the Voluntary Liquidation Act (1891), which stipulated that a company in voluntary liquidation could only be wound up if one-third of creditors demanded it, and these creditors had to have at least a third of the value of the company's liabilities. This Act was widely condemned as making it almost impossible to have a company wound up, and consequently left creditors more or less at the mercy of the directors[4] (Butlin 1961: 286; Boehm 1971: 266, 301). The main effects of the Act were to damage credit in Victoria and hinder the restructuring of the financial system, and it was subsequently amended at the end of 1892 to bring it into line with the New South Wales Act.

The bank failures continued in early 1892 when the building society connections of the Federal and Commercial Banks gave rise to considerable public concern, and the Associated Banks were pressured to come up with joint action to reassure the public. (Much of this pressure came from the Federal and Commercial Banks themselves, which were members.) The result was a public statement in March in which the Associated Banks announced that they had agreed on conditions on which they would help members. (They did not announce, however, that those conditions required borrowers to provide adequate security, and this requirement effectively nullified the support they were offering.) The announcement managed to allay public fears, none the less, and the Associated Banks remained 'unscathed for the remainder of the year, while many of their former competitors – the mushroom land-banks – were wiped away'. As Blainey (1958: 147) continued:

4 The politicians themselves were also heavily criticised. In Victoria 'one of the worst features of the mounting disclosures of mismanagement, chicanery, falsified accounts, and fraud, was the extent to which leading members of Parliament were involved' (Butlin 1961: 286). Boehm (1971: 266) also refers to the 'corruptness and incompetence within the Victorian Legislature' which were revealed in the passage of the Voluntary Liquidation Act.

> In Melbourne and Sydney forty-one land and building institutions failed in the space of thirteen months, locking up £18,000,000 of deposits. In new suburbs whole streets of houses were vacant, scores of shops were shut; and in the city entire floors of new skyscrapers were tenantless.

The crisis then flared up again when the Federal Bank failed in January 1893. The Federal was the smallest and weakest of the Associated Banks, and, indeed, had only been (reluctantly) admitted as an Associated Bank four months earlier. The Federal had unfortunate associations with recent building society and land company failures, and these problems were reflected in a very sharp fall in its share price and a steady and substantial loss of deposits in the second half of 1892. The bank's position was hopeless,[5] and the Associated Banks' refusal to help it after a thorough investigation of its finances gave it no option but to close. The public seemed to take the news calmly at first 'but depositors drew some obvious morals' (Butlin 1961: 296):

> Here was the first of the Associated Banks to fail, and apparently no serious attempt had been made to save it; the misunderstood assurance of mutual aid of March 1892 clearly was no protection. From this time onward the withdrawal of deposits from banks believed to be weak rose to almost panic levels.

The Commercial Bank was extremely hard hit by this loss of confidence. As noted already, the Commercial had already tried to cut its losses by curtailing credit to building societies at the end of 1891, but its association with institutions that had gambled heavily on land continued to haunt it and encourage a flow of withdrawals that turned into a flood once the Federal failed. Its share price had also fallen sharply since the end of 1891. The Commercial's position became so precarious that the Victorian Treasurer pressured the Associated Banks to bail it out. The Associated Banks themselves disagreed about what should be done. The stronger banks such as the Union and the Australasia had no incentive to support the weaker ones since their own reserve position was strong and they continued to enjoy public confidence. The Australasia, the Union and the Bank of New South

5 There was some controversy over whether the Federal should have been rescued, but an inquiry by the Victoria Supreme Court concluded later that it was already beyond rescue (Boehm 1971: 288).

Wales had all received substantial deposit inflows since late 1892 – so many deposits flowed in, in fact, that the two Melbourne banks were embarrassed by this 'sign of public confidence' (Butlin 1961: 305) – and this 'flight to quality' was to continue until the final bank failures later in May (Blainey 1958: 145, n. 1). For the weaker banks, however, an agreement was tantamount to the provision of a credit facility at interest rates generally below what they would have had to pay on the market. An agreement was thus equivalent to a transfer from the stronger banks to the weaker ones, and the stronger banks were naturally reluctant to consent to it. An initial statement was put out that the Associated Banks would support each other, but considerable political pressure had been applied and the chief executive of the Australasia had refused to go along with it, and this statement was followed soon after by a 'clarification' on 13 March that so qualified it as to render it virtually meaningless. As Butlin (1961: 297) put it:

> The fat was really in the fire. Such an assurance ... [meant] that the banks were not in fact prepared to give each other any guarantees at all ... the sequence [of events] could not have been better planned to touch off panic ... The run on deposits now became a panic, so far as banks believed to be tottering were concerned ...

The Commercial was then faced with a run it could not meet. It applied for assistance from the Associated Banks, but was unable, or perhaps unwilling, to satisfy the conditions required for a loan, and it duly suspended on the weekend of 4–5 April.

When it suspended, the Commercial simultaneously announced plans for its capital reconstruction under the terms of the recent Victorian legislation. (There was some suspicion, indeed, that its application for assistance had simply been a feint to provide a justification for suspending in order to implement a reconstruction plan that had already been decided upon.) Reconstruction involved setting up a new bank with the same name as the old; there were extensive calls on shareholders for more capital; and deposit repayments were generally deferred, with existing deposit claims being tranformed into a combination of preference shares and deposits of varying (and often long) maturities. The 'essence of the scheme was that the bank asked for time to pay those creditors who demanded immediate repayment, but it promised to pay them in full, in interest and principal' (Blainey 1958: 165), and the fact that depositors raised relatively few objections suggests that they preferred it to any viable alternative.[6] Small depositors with £100 on current account 'were given three £10 preference shares and a fixed-deposit receipt for £70 when the bank re-opened' (Blainey 1958: 165–66):

> If they were short of ready money they could borrow from the bank on the security of their fixed-deposit receipt, and within three years they were able to sell their preference shares at a profit and within seven years they received full payment for their deposit receipt. For eight weeks, while the bank was shut, they were seriously inconvenienced, but thereafter they did not suffer … Reconstruction caused [the majority of wealthier depositors] worry but neither monetary loss or inconvenience. They had originally deposited their money for the long term in order to get a good return and a secure investment, and they continued to derive these advantages from their preference shares and fixed-deposit receipts. The rate of interest was higher than they had received before the bank crash and for some years it would be 50% higher than the rate offering for a new deposit in any Victorian bank. They only suffered inconvenience if by chance they had to suddenly marshal their resources in order to meet debts or business losses. Being men of property, however, they could usually raise the money on mortgage.

A curious feature of the reconstruction, and one that was later copied by other suspended banks, was the opening up by the Commercial, four days after it suspended, of trust accounts which enabled deposits and withdrawals to be made without involving any of the funds in the bank's 'old' business. These accounts then undermined the banks that remained open, and there 'ensued the spectacle of depositors in banks still open, hastily withdrawing their funds to escape the threat of reconstruction and promptly depositing in a trust account in the Commercial' (Butlin 1961: 300).

The suspension of the Commercial encouraged others to follow suit. As Butlin (1961: 300) observed:

> Every surviving bank had thrust before it the great advantages of 're-construction': permanent accession of capital; immediate elimination of the mounting tide of deposit withdrawals; and miraculous restoration

6 Some depositors did object, however, and the 'inconvenience' caused by the suspensions was in some cases a cause of considerable distress (see Gollan 1968: 37–40).

> of confidence. Harrassed and worried bankers ... followed the lead of the Commercial.

Twelve other banks suspended over April and May to gain time to reconstruct. The banks that suspended accounted for 56.2 per cent of all deposits held in March, and 61.3 per cent of all notes issued in April and May, and while they would have accounted for smaller percentages over the next two months, these figures none the less give an idea of the order of magnitude of the suspensions (Butlin 1961: 302).

The suspensions were also prompted by government intervention. In Victoria the government imposed a five-day banking holiday from 1 May. The heads of the Union and Australasia Banks strongly opposed the holiday and ordered their banks to remain open to do whatever legal business they could. The *AIBR* reported that the bank holiday proclamation was issued 'in the hope that the public mind might calm down, the principle being unconsciously adopted that in order to put out a fire the right thing is to shower petroleum on it'. It failed to have the desired effect. The *AIBR* continued (quoted in Boehm 1971: 307–8):

> When Monday morning came, Melbourne was in a state of indescribable confusion and semi-panic and Collins-street presented scenes never before witnessed in the history of the colony. But when it was discovered that the Bank of Australasia and the Union Bank of Australia, ignoring the proclamation, had thrown their doors wide open ... the excitement gradually abated.

The two banks' willingness to remain open shored up public confidence in them, and the withdrawals they faced soon abated. The Bank of New South Wales reopened the next day, and also stood the storm, but the remaining banks that had closed had effectively lost public confidence and were consequently unable to reopen (Butlin 1961: 303–4). The government of New South Wales considered a similar step, but rejected it and decided instead to make banknotes temporary legal tender. The banks in New South Wales were consequently allowed to apply to have their notes made legal tender, but the major banks had no desire to apply – presumably because they felt it would signal to the market that they needed the 'support' of legal tender – and the government ended up making their issues legal tender regardless. The governments of New South Wales and Queensland also made provision for a government note issue to enable the weaker banks to meet demands for redemption.

Whatever effect these measures had, the crisis calmed down by the end of May, and the remaining suspended banks reopened again over the next three months. (The Commercial had already reopened on 6 May.) The bank suspensions hindered trade (e.g. by disrupting the circulation of cheques), and households and businesses experienced difficulties obtaining credit, but the figures for bank advances show no steep decline over this period (Boehm 1971: 214). The real economy reached its nadir in the second quarter of 1893 (Boehm 1971: 26) – annual figures indicate that real GDP in 1893 was 17 per cent lower than it had been in 1891, and the difference between the quarterly peak in 1891 and the trough in 1893 would have been even larger. Prices as measured by the GDP deflator fell by 22 per cent from 1890 to 1894 and thus implied a very sharp increase in *ex post* real interest rates. The economy started to recover in the third quarter of 1893, but recovery was faltering and uneven, and it took nine years for real GDP to surpass its 1891 peak (Butlin 1962: table 13).

Interpreting the bank collapses

A conventional view soon grew up around the bank ‘failures’ of the 1890s. This interpretation of events was first put forward by Cork (1894) and Coghlan (1918), but later writers ‘have fleshed out the details without altering the substance of the story’ (Merrett 1989: 62). As summarised by Merrett (1989: 61–62):

> Speculation fed by the inflow of British capital in the 1880s sowed the seeds of subsequent collapse. Bankers … endangered the solvency of their organizations by lending against overvalued real property and shares. The inevitable end of the land boom left the banks exposed … The large-scale failures among the many financial institutions more intimately connected with the property boom and the discovery of fraud by executives and directors cast a pall of suspicion over the safety of the trading banks. Pressure intensified with the closure of both the Mercantile Bank of Australia and the Federal Bank … The unwillingness or inability of the Associated Banks of Victoria to mount a successful rescue operation to save members in distress further lowered public confidence. Panic sprang from the failure of the Commercial Bank … Frightened depositors attacked banks willy-nilly until the crisis had run its course.

Merrett (1989: 63) himself seems to opt for a similar story:

> The rapid growth of the banks' balance sheets and the spread of their branches outran the ability of some to devise adequate reporting and control mechanisms. The maturity mismatch between assets and liabilities worsened, asset quality deteriorated, and risks became increasingly concentrated. This increase in average risk in the system was not offset by any strengthening of liquidity standards or capital adequacy. Rather, the reverse occurred. Liquidity ratios declined, as did capital ratios … The growing loss of confidence in particular banks was crystallized by a combination of factors into a general panic in early 1893.

One of the key issues here is the banks' liquidity and Merrett goes on to argue that the 'inescapable conclusion is that the long decline in liquidity standards seriously undermined the banks' ability to cope with the growing problem of higher risks' (1989: 77). However, 'the facts tell a different story' as George Selgin (1990: 26–27) points out:

> Merrett (1989, p. 75) reports that the aggregate reserve ratio … fell from .3217 in 1872 to .2188 in 1877; but his figures for later five-year intervals show no further downward trend … Even the lowest figure compares favorably to those from other banking systems, both regulated and free. It is much higher than Scottish bank reserve ratios for the mid-nineteenth century … and about the same as ratios for free Canadian banks in the late nineteenth century and for heavily regulated US banks today.

He also notes that (Selgin 1990: 27)

> Pope's annual data, presented graphically … are more plainly inconsistent with [the falling reserve] hypothesis … in the seven years preceding the crisis … the average ratio of the thirteen suspended banks rose steadily from about .15 to .16 … Pope's reserve figures also show a minor difference only – perhaps two percentage points – between the reserve holdings of failed Australian banks and those that weathered the crisis. This also suggests that 'overexpansion' was not the root cause of the banking collapse.

The other key issue is capital adequacy. The figures given in Butlin et al. (1971: table 2) show a fall in the capital ratio from about 20 per cent in 1880 to 12.5 per cent in 1892, but these figures ignore the uncalled liability attached to bank shares, and a number of banks also had a contingent reserve liability which took effect if the bank went into liquidation (Merrett 1989: 82). Merrett himself estimates that this extra capital resource amounted to 'nearly 45 per cent of the conventional measure of shareholders' funds' (p. 81), which suggests that these capital ratios give a considerably understated impression of the 'true' capital adequacy of the banks. It is far from clear, however, that these capital ratios are low enough to say that the banks had grossly overreached themselves in the way the conventional view maintains. The banks did run into problems later, of course, but those problems do not themselves prove that the banks' capital policies had been reckless. The banks' capital ratio recovered after the crisis, but its subsequent rise was relatively small – it reached a maximum of around 17 per cent in 1897 – and fell again subsequently to pass through its earlier low point in 1903. (And it is interesting to note that there was apparently no concern then with the banks' capital adequacy.) One might reply that the capital ratio ought to be interpreted in conjunction with other factors (e.g. liquidity, or some index of the quality of banks' assets), but that argument only concedes the points that the capital ratio should not be read on its own, and hence that further evidence is needed to be able to say convincingly that 12.5 per cent was an irresponsible capital ratio in 1892 but not in 1903.[7] The claim that the banks had allowed their capital ratios to fall to reckless levels is also difficult to defend in the light of Pope's chart (1989: figure 8) on core capital adequacy. If this hypothesis were correct, we would expect the capital ratios of failed banks to show a distinct downward trend in the period before they failed, we would expect a model of bank failures to show that the capital ratio had a negative and statistically significant coefficient, and we would also expect there to be a major (and growing) difference between the capital ratios of failed and non-failed banks. In fact, the capital ratio of failed banks appears to *rise* in the two years before failure, and their capital ratio reaches a low point *five* years before failure and then recovers. Pope's logit model of the probability of failure also shows that capital adequacy has a 'correctly' signed coefficient in only one out of four cases, and even that is

7 For what the comparison is worth, one might add that 12.5 per cent would be considered very sound in the US today, and American banks now, like Australian banks then, have a large number of problem loans on their books. The assets of US banks now are also probably no more diversified than the assets of Australian banks a century ago, so the comparison is perhaps not as far-fetched as it might otherwise appear.

only significant at the 10 per cent level (Pope 1989: table 1), so there is little evidence that capital adequacy 'matters' in the way that this hypothesis predicts it should. And note, finally, that the difference between the capital ratios of banks that were to fail and banks that were not is relatively small – under 3 percentage points, and usually considerably less – and shows no tendency to grow as the dates of the failures approach (Pope 1989: figure 8).[8]

There is no denying that some bankers made serious mistakes in the run-up to the 'crash' of 1893, but the evidence just reviewed does not prove the claim that these mistakes were the major factor behind the severity of the 'crash'. Nor does the evidence support the claim that the bank 'crash' contributed in a major way to the severity of the depression. If this claim were valid, it would be possible to isolate the channel or channels through which the crash was able to push the real economy down. Two channels suggest themselves, but neither shows any evidence of having transmitted a major shock from the banks to the rest of the economy:

- There may have been a major disruption to the provision of credit by the banking system along the lines suggested, for example, by Bernanke (1983). The evidence indicates, however, that while bank advances declined from 1891 onwards, there was no detectable drop in advances that can be associated with the bank failures per se (Boehm 1971: 214). This first channel can therefore be ruled out.
- There may have been a sharp monetary shock. As discussed already, there was a major restructuring of bank liabilities during suspension, and this transformation implied a large fall in liquid deposits – M3 deposits minus deposits converted by reconstruction, or 'Merrett money' – fell by a massive 46 per cent from December 1892 to June 1894 (Schedvin 1989: 5). Schedvin describes this fall as 'exceeding the United States experience of the early 1930s and far greater than any other Australian deflationary shock' (p. 5). Yet there was no major fall in aggregate monetary liabilities at the time of the crash (see Schedvin 1989: figure 1) and depositors who had their claims transformed suffered inconveniences but no major monetary losses. (In the US in the early 1930s, by contrast, depositors

8 One might also note, by the way, that the claim that banks' risks were becoming more concentrated only receives very weak support. Pope's figure 8 indicates only a barely perceptible increase in the suspended banks' risk-concentration, and the fact that the risk-pooling variable always has an insignificant coefficient in Pope's estimates (1989: 20) indicates that it had little effect on the bank failures anyway.

> *did* suffer major losses and there was a large fall in the broader monetary aggregates.) If the fall in Merrett money was a major deflationary shock, we would also have expected the shock to be followed by a downturn in the economy. Yet the economy was already recovering in the third quarter of 1893, just after the major drop in Merrett money, and the recovery continued into 1894 – a pattern of output behaviour that would appear to be quite inconsistent with any major deflationary shock in 1893.

What, then, are we to make of the events of the 1890s? The evidence seems to support the following interpretation. The depression itself was fundamentally a 'real' phenomenon. Australian terms of trade had been falling for a long time, but the effects of these terms-of-trade changes were masked until around 1890 by large inflows of British capital (see, for example, Boehm 1971: 271). These inflows dried up in the early 1890s. Investment fell, especially in the building industry (Boehm 1971: 271, 279), and falling investment itself pushed the economy down as well as forcing it to make its long-overdue response to the earlier terms-of-trade changes, and the combined effect was a very sharp downturn. A number of institutions had lent heavily and, in retrospect unwisely, against land, but other institutions, the larger banks especially, saw the danger coming and pulled in their horns. The downturn was so severe, however, that financial institutions were bound to be seriously affected, even those that had consciously restricted their lending against land-based assets. The land banks and building societies were naturally affected most, but the banks as a whole survived quite well until 1892. One might note too that there was no indiscriminate running of financial institutions; there was instead a 'flight to quality' in which depositors withdrew funds from institutions perceived as weak to re-deposit them in stronger institutions such as the big banks, and it is significant that at no time were the big three banks – the Australasia, the New South Wales and the Union – ever in serious danger. The weaker banks started to fail in early 1892, and a full-scale banking crisis blew up in early 1893, but these 'failures' owed much to government intervention. The Victorian and New South Wales governments first intervened to make it more difficult for creditors to liquidate institutions, and this rewriting of the rules encouraged banks to run for the cover of a legal suspension which would allow them time to reconstruct on relatively favourable terms. As Pope noted, 'One interpretation of the "crash" of April–May 1893 is of a rush by banks to seize the vantage ground offered by reconstruction' (1987: 29). The implication is that the failures were a product of the legal framework rather than a symptom of genuine insolvency, and it is surely significant that all – with one arguable exception – were able to reopen successfully afterwards. Nor can there be much doubt that other interventions intended to allay the crisis actually had the opposite effect. The bungling attempts of the Victorian Treasurer to pressurise the Associated Banks into bailing out the weaker banks backfired at a critical point and needlessly undermined public confidence. The Victorian banking holiday had a similar impact. It amounted to the government bullying the banks to close, and those that obeyed found it very difficult to reopen. The threat of a banking holiday in New South Wales would also have encouraged withdrawals there, and it is questionable that the legal tender measures or government note issues there or in Queensland did much to allay the panic. The bottom line, then, is that the bank 'failures' were caused primarily by a combination of 'real' factors and misguided government intervention, and the 'failures' were not what they might appear to be anyway. It is ironic that a crisis in which inept government intervention played such a major part should have become so widely regarded as a failure of 'free banking'.

This 'new view' of the bank crash avoids a number of drawbacks with the traditional interpretation. First, the conventional view emphasises banks' reckless lending as a major contributory factor to the crash, but the evidence presented to support this view is weak. The fact that reckless lending took place does not establish that it was an important force behind the crash, and the banks' liquidity and capital ratios provide relatively little evidence that it was. Second, the conventional view fails to give sufficient emphasis to the true nature of the bank 'failures', and, more importantly, it underrates the extent to which those failures were a product of the legal system under which the banks operated. A bank 'failure' was usually no more than a device to reconstruct before opening again, and it seldom if ever meant that an insolvent bank was going permanently out of business. Third, the bank runs were not an indiscriminate attack on the banking system as a whole, and it is misleading to think of there being a 'systemic' crisis. Instead there was a noticeable flight to quality as deposits were transferred from the weaker banks to the stronger ones, so much so, in fact, that the stronger banks sometimes did not know what to do with the deposits they were receiving. Fourth, the standard view misses the significance of the various government interventions discussed in the previous paragraph which unwittingly aggravated the crisis. Last, and of critical importance, if the conventional view were correct, we would expect the banks' overexpansion to be reflected in the behaviour of real economic activity. The bank expansion would promote real economic activity, and we would expect the real economy to fall once the banks' expansion had ended, or soon after. But instead of falling, real output started to rise shortly after the bank 'crash', and there appears to be relatively little correlation between bank lending and real activity. The conventional view predicts that the gun should be smoking, as it were, and yet we can find no evidence that it has even been fired.

Epilogue: The development of central banking in Australia

The events of the 1890s dealt a heavy blow to the reputation of the banking profession. 'The crash, and subsequent revelations of fraud and chicanery' by some bankers 'tarnished the image of bankers as responsible guardians of the society's savings' (Merrett 1989: 61). After the suspended banks reopened (Butlin 1961: 302),

> it could appear to those who had suffered acutely that, by financial legerdemain, the banks had saved themselves … at the expense of thousands of individuals. Suspicion of financial institutions had long been endemic in Australian thinking … [and it appeared obvious that] in the 'nineties the banks' escape by reconstruction was made at the expense of their customers.

This view combined with an increasingly interventionist ideological climate to have a profound effect on twentieth-century politics.[9] Political parties identified the banks as a major source of economic instability and social injustice, and this view helped to undermine resistance over succeeding decades to the notion that the state should take control over the banking industry (see, for example, Schedvin 1989: 5–6). The drive to establish state control was especially strong on the political left, and state control of the financial system – and, later on, outright nationalisation – became a key part of the Australian Labour Party's political platform. The poor public standing of the banks also undermined their bargaining position relative to the political authorities. The politicians could make demands on the banks

9 Gollan (1968) has a good account of the controversy over banking and the political background to the banking legislation.

in the knowledge that they could easily whip up anti-bank feeling and impose more unpleasant measures on them if they resisted. The banks were consequently cowed into submission, and the new Commonwealth government established in 1901 frequently had its way with them without having to resort to the formality of legislation.

The banking system consolidated itself considerably after the crash was over. The number of branches fell from 1,553 in 1892 to a low of 1,223 in 1896 (Butlin 1986: table 38) and a wave of mergers started in the 1890s which was to reduce the number of banks by half in the first two decades of the twentieth century (Schedvin 1989: 6). Bankers became much more conservative. Their first priority was to rebuild their strength to reassure the public of their soundness, and the need for prudential strength was reinforced by the growing competition of the public-sector savings banks whose market share grew from 6 per cent in 1890 to over 30 per cent by 1928 (Merrett 1989: 84). The trading banks also tended to take fewer risks and give more emphasis to short-term self-liquidating investments in place of longer, more speculative ones (e.g. Merrett 1989: 83). The 'spirit of banking entrepreneurship was dead, cremated in the fire of 1893' (Schedvin 1989: 8). One other change was that the banks were now able to maintain agreements on deposit rates and foreign exchange rates and margins, and there was no longer any effective competition except for advances. Competitive banking had given way to a banking cartel operating in the government's shadow.

Section 51 of the Commonwealth Constitution gave the Commonwealth the power to legislate currency and banking, and Andrew Fisher's Labour government used it to begin the process of capturing seigniorage revenues (Fane 1988: 5). The first stage in the process was a pair of Acts passed in 1910 to give the Commonwealth a monopoly of the note issue. The Australian Bank Notes Act authorised the Commonwealth Treasurer to issue notes which would be legal tender throughout the federation but would be redeemable in gold at the Commonwealth Treasury. The Act also specified that the government was to observe a minimum gold reserve ratio of 25 per cent for amounts less than £7 million and to observe a 100 per cent reserve ratio on amounts exceeding that value, but the 100 per cent reserve ratio was abolished in an amending Act the following year (Copland 1920: 490). (The bankers strongly resisted this amendment as they obviously feared – rightly, as it turned out – that it would pave the way for the government to inflate the currency, but they could not prevent it.) The other Act of 1910 was the Bank Notes Tax Act, which imposed an annual tax of 10 per cent on all other note issues and effectively taxed them out of existence. These measures were followed by the establishment in 1911–12 of the Commonwealth Bank as a Commonwealth-owned trading and savings bank. It was to compete with the private banks and promote a national savings bank system, but it was also to assist the government by conducting the government account and managing the national debt.

More government interventions followed after the outbreak of war in 1914. In September 1914 the Associated Banks were 'persuaded' to supply the Commonwealth government with £10 million in gold, and the banks reluctantly consented in case the government passed an order to seize all their gold instead (Fane 1988: 6). Gold was replaced by notes in interbank clearings at the same time (Copland 1920: 491, n. 13) and private non-bank holdings of gold were mostly expropriated (Fane 1988: 6). Gresham's Law ensured that gold disappeared from circulation and the Australian pound note replaced the gold sovereign as the economy's basic unit of account. The government's augmented gold reserves enabled it to increase the note issue massively – from £9.6 million notes in June 1914 to £32.1 million notes a year later, and then grew to £55.6 million by June 1919 (Copland 1920: table VI). The resulting increase in monetary base represented a major contribution to the government's war finances (Fane 1988: 8), but it also fuelled a considerable increase in the broader money supply and a substantial rise in the price level (Copland 1920: table X). Though the nominal price of gold continued to be fixed at its old rate, the automatic discipline which the gold standard would have applied to this monetary expansion was aborted by the prohibition of gold exports effective in June 1915 and the government's refusal to redeem its notes even though they remained convertible *de jure* (Fane 1988: 5–6). This refusal provoked no legal challenge – presumably, no one wished to appear 'unpatriotic' by demanding redemption – and the gold standard was effectively suspended.

World War I also saw the Commonwealth Bank develop further into the role of central bank. It (Copland 1920: 491)

> greatly assisted the Government in financing the war, and was especially helpful in floating war loans and in establishing the enormous issue of Australian notes which the financial policy of the Government necessitated.

The development of central banking continued in the 1920s. The note issue was transferred to a Notes Board by the Commonwealth Bank Act of 1920, but then transferred to the Commonwealth Bank itself by an amending Act of 1924. In addition, the amending Act reorganised the Bank and gave the Secretary of the Treasury a seat on its Board (Fane 1988: 9) as well as granting the Bank authority to publish a rediscount rate (Schedvin 1989: 10). Fane also notes, by the way, that this last section was never proclaimed because the banks adopted it 'freely' and made formal proclamation unnecessary. This episode illustrates how the trading banks were willing to comply with official wishes without waiting for formal orders to do so.

Australia did not return to the gold standard until 1925 when the ban on exporting gold was lifted and Australia joined Britain in restoring the convertibility of the currency into gold. The exchange rate between the Australian and British currencies was maintained by the 'trading banks, acting as a cartel' (Fane 1988: 10–11):

> To a limited extent one can regard the behaviour of these banks as a manifestation of official monetary policy: any attempt blatantly to flout the government's wishes might have precipitated stringent controls or nationalisation. To a large extent, however, the banks appear to have voluntarily chosen to set the exchange rate at parity, or close to parity, and were able to do so because the government kept the growth of domestic credit within [suitable] limits.

Apart from a brief episode in 1920–21, these arrangements managed to keep the exchange rate between the Australian and British pounds reasonably stable until 1929 (Fane 1988: 10–11), but the combination of heavy government borrowing overseas, a fall in the overseas funds of the trading banks, and a 60 per cent fall in export prices between 1928 and 1931 made the exchange rate increasingly difficult to defend (Fane 1988: 15). The government's response was the Commonwealth Bank Act of December 1929, which provided for the control of gold exports and the requisitioning of gold, and this Act 'marked Australia's effective departure from the gold standard' (Fane 1988: 16). These measures prompted the trading banks to agree in January 1930 to hand over two-thirds of their gold reserves to the Commonwealth Bank, and they then sold their remaining gold while they still could. The banks feared that full-scale exchange controls would follow, so they tried to placate the authorities and head off more drastic measures by agreeing in August 1930 to the 'Mobilization Agreement' by which they were to hand over UK£3 million each month to the Commonwealth Bank and restrict their overseas borrowing. The authorities had effectively seized the bulk of the trading banks' foreign exchange reserves and then left the banks to defend an exchange rate that was already under considerable pressure because of Australia's large current account deficit (see Fane 1988: 16–17). The banks responded with a combination of rationing sterling and raising its price, but sterling was at an even greater premium on the unofficial market and the trading banks saw their foreign exchange market share fall significantly. Their attempt at price fixing then broke down when the Bank of New South Wales broke ranks in January 1931 and the banks only recovered their market share once the price of sterling had risen to A£1.3 (Schedvin 1970; Fane 1988: 18). The price of sterling fell to A£1.25 following Britain's abandonment of the gold standard in September 1931. The Commonwealth Bank then maintained the exchange rate at this level and the price of sterling was to remain unchanged until sterling was devalued in 1967 (Fane 1988: 18–19).

The Commonwealth Bank's role expanded further in the 1930s. Apart from taking responsibility for the exchange rate, it also assumed greater responsibility for setting interest rates and managing the financing of the government deficit. It became a key player in the determination of fiscal as well as monetary policy, and its influence on fiscal policy 'politicized banking to a remarkable degree' and created 'rising popular antagonism against the banking system as a whole' (Schedvin 1989: 10–11). Governments, especially Labour ones, were then able to portray banks (Schedvin 1989: 11)

> as uncompromising and unwilling to share in the general sacrifice, a perception that triggered underlying resentment about the use of oligopoly power and activated memories of … the 1890s. Even more important was the widespread belief that the banks in association with the international 'money power' were, somehow, responsible for the depression.

The controversy led to a Royal Commission whose Report in 1937 advocated increasing the Commonwealth Bank's central banking powers still further. It recommended that the private trading banks be required to maintain minimum deposits with the Commonwealth Bank and give it greater access to their London funds. The central bank was also to supervise banks and impose capital standards, and it was to have the power to take over weak banks. The Report also recommended that the government consider controlling the banks' profits, and it proposed the public utility model of the banking system that provided the rational for later regulation (Schedvin

1989: 11–12). It is interesting to note how the resentment created by the central bank's own policies was channelled against the private banks and used to justify further increases in the central bank's powers, and the option of curtailing the Commonwealth Bank's powers instead does not appear to have been taken seriously.

Yet even this far-reaching regulatory regime was insufficient for the government, which used it to rationalise regulation but actually adopted far more drastic measures than the Report itself recommended. Comprehensive exchange controls were adopted in August 1939, and these were followed in November 1941 by the National Security (Banking) Regulations introduced under the Commonwealth's defence power. These gave the central bank the powers to direct banks' advances and impose interest rates. They also gave it the power to require banks to lodge funds in Special Accounts at the Commonwealth Bank, and the interest on these funds was manipulated to control the trading banks' profits (Schedvin 1989: 13). Government control was now effectively unlimited and the public interest model was imposed 'lock, stock and barrel' (Schedvin 1989: 14) as a kind of fig-leaf in order to rationalise that control. These regulations were only constitutionally valid under the defence power, but they were enshrined none the less in a modified form in the banking legislation of 1945 and this regulatory regime continued substantially intact until the mid 1980s (Fane 1988: 21).

Two factors were therefore decisive in the twentieth-century transformation of the Australian banking system. The first was the Commonwealth government's craving for revenue (Fane 1988: 1):

> The history of Australian monetary policy from Federation to World War II can best be understood as a gradual process by which the new government established a monopoly on the ability to issue money and then expanded the revenue by inflationary finance …

The establishment of the currency monopoly, the establishment of the Commonwealth Bank and the use the government made of it, the expansion of the central Bank's powers, and the reluctance to set aside 'emergency' powers once emergencies had passed were all geared towards raising revenue for the government. The other decisive factor was ideological. The climate of opinion in Australia was hostile in the extreme to laissez-faire, and prevailing mythology blamed the banks for much of the misery of the 1890s and 1930s. The banking system was therefore an easy target for demagogues looking for convenient scapegoats. Governments stirred up anti-bank feeling and made good use of it to promote their own interests while masquerading as defenders of the broader social good. In the process they undermined the banking system further and lent additional credence to the view that the banks were letting the economy down. Government self-interest and the prevailing ideology thus reinforced each other and there was relatively little to resist them. Australian free banking had thus given way to its opposite – central planning – after just forty years.

4 FREE BANKING IN BELGIUM, 1835–50

Patrick Mardini and Kurt Schuler

Belgium had a somewhat free banking system from 1835 to 1850. The country had two major incorporated banks in Brussels, the Société Générale and the Banque de Belgique; several smaller banks in the provinces; and many unincorporated private banks. During its brief existence, the system experienced banking crises in 1838 and 1848, sparking lively debate about bank regulation. Another noteworthy feature of the system was that the two major banks combined commercial and investment banking activity. Although a substantial body of writing about Belgian banking history exists, apparently none of it emphasises the free banking aspect. Readers who want more narrative details, plus balance sheet data not previously readily available, can find them in Mardini and Schuler (2014).

Structure of the banking system

Private banks

Private banks had existed in Belgium since at least the Middle Ages (De Roover 1948). They had unlimited liability. A few issued notes; generally we do not have statistics of their issues, which were small. In 1833 Belgium had more than 80 private banks (see Table 4.1). Private banks were mostly formed by wealthy individuals. Those who had made their fortunes outside of banking typically continued their original business and offered banking services at the same time. Mainly they used their own capital, although in some cases wealthy persons entrusted private banks with funds for investment. The concept of a deposit in the later sense did not really exist, but some merchants kept funds with bankers and used them to make payments. On the asset side, private bankers focused on subscribing to government loans and on foreign exchange transactions. They also granted short-term commercial credit and discounted bills of exchange through their networks of correspondents domestically and internationally (Chlepner 1926: 31–32; Lebrun 1980: 172–73, 185).

When incorporated banks appeared, they complemented rather than replaced the private banks. Some private bankers helped create and manage incorporated banks, and private banks used the incorporated banks to rediscount bills (see Wee and Verbreyt 1997: 22–23).

Incorporated note-issuing banks in Brussels

The first incorporated (limited liability) bank, the Société Générale, began before modern Belgium itself. As part of the 1814 Treaty of Paris, which redrew the map of Europe after the Napoleonic Wars, what had previously been the Austrian Netherlands, and more recently part of France, was awarded to the Netherlands. The sovereign of the Netherlands, Prince Willem Frederik of Orange-Nassau, gained ownership of the properties of the former sovereigns. (In 1815 he proclaimed himself King William I of the Netherlands and Grand Duke of Luxembourg.)

As was commonplace then, royal and state finances were intermingled to a degree today only seen in some dictatorships. William was land rich but cash poor. He wanted funding for some public spending, such as the construction of battleships and castles, but did not want to increase debt or taxes. He decided to sell some of his recently acquired crown lands, but withdrew the idea after criticism from the States-General (legislature) and the public (Chlepner 1926: 38). His solution to his financial problems was to sponsor an incorporated bank in Brussels in 1822. Its name was the Algemeene Nederlandsche Maatschappij ter Begunstiging van de Volksvlijt, or in French the Société Générale des Pays-Bas pour favoriser le développement de l'industrie nationale (General Netherlands Corporation to Promote National Industry). The bank had a large capital of 50 million Dutch guilders (florins), of which William initially took 20 million, in exchange for some of his southern crown lands. (The exchange rate of the guilder at the time was roughly 11 per pound sterling or 2.5 per US dollar.) The public did not take up all of the remaining shares, so William subscribed to a further 12.9 million guilders, mainly with government bonds (Lebrun 1980: 172; Chlepner 1926: 46–52).

The bank's corporate charter, approved by royal decrees of 22 August and 12 December 1822, allowed it to collect deposits and take loans. The law also limited its bond issuance to 20 million guilders and, as in many nineteenth-century banking systems, limited note issue to the amount of capital. The bank was only allowed to issue notes in guilders, which restricted their use, because the customary monetary and accounting unit of the south was the French franc. William made the bank the fiscal agent for the government throughout the Netherlands, north and south, which gave it access to large inflows of funds and made it much more liquid than its capital structure alone provided. The bank by 1823 opened branches in Antwerp, Ghent, Liège, Mons and Tournai; it also had agents in more than 60 locations across the Netherlands to pay and receive government funds (Brion and Moreau 2008: ii; Chlepner 1926: 47, 52). The charter specified that the bank was not to infringe on the rights of the Netherlands Bank in Amsterdam, the other incorporated bank in the kingdom.

The Société Générale was a jackpot for William. It enabled him to improve his liquidity, avoid giving the States-General more say in budget management, make payments efficiently, and satisfy the desire for an incorporated bank that prominent citizens of Brussels had expressed (Chlepner 1926: 308–9).

In 1830, a revolution erupted in Brussels that resulted in the southern provinces breaking away from the Netherlands and forming modern Belgium. From the time of independence, the idea of creating a second bank became increasingly popular, especially since the Société Générale was accused of Dutch sympathies.[1] The bank refused to hand to the new government of Belgium the taxes it had collected before the revolution. It stopped payment on certain annuities related to the crown lands. It published no information about its affairs. It charged the government a fee of 0.125 per cent for taxes collected, increased to 0.25 per cent in 1831; public opinion was the bank should instead pay interest to the treasury on the funds (Chlepner 1926: 65, 103–25). The bank was the main subscriber to government securities, the sole funder of the country's main companies, and had outsize political influence.

In addition, many of the small local savings banks created in the previous 15 years to help the masses encountered problems because the Belgian revolution had led to higher withdrawals alongside reduced liquidity in the government bonds they had invested in. The Société Générale took them over in 1831. Savings deposits paid 4 per cent interest, a high rate, so the

1 William I continued to be the largest shareholder in the Société Générale for years afterwards. Belgium did not nationalise his holdings, as would be typical in such a case later.

Société Générale considered managing savings banks a favour to the government and threatened to end them each time its relations with the government deteriorated. In 1834, the bank announced it would end savings bank operations in all provinces except Antwerp (Chlepner 1926: 95–104). The announcement was the straw that broke the camel's back, prompting the banker-politician-nobleman Charles De Brouckère to press his demand for government approval for a rival institution, the Banque de Belgique. A royal decree of 12 February 1835 (by Belgium's new king, Leopold I) approved the new bank, which opened on 26 February. Most of its shareholders were French (Lebrun 1980: 180). We date Belgium's somewhat free banking system as beginning with this event, because it marked the start of effective competition between large, modern commercial banks.

The Banque de Belgique's capital was 20 million francs. (The franc was the currency of independent Belgium from 1832. It was equal to 4.5 grams of fine silver or 0.28481 grams of fine gold, like the French franc, making it equal to about 0.48 guilders.) Its charter granted similar powers and imposed similar restrictions as with the Société Générale, except that the Banque de Belgique never received the coveted function of acting as a fiscal agent for the government, a privilege the Société Générale guarded jealously. The bank was authorised to issue notes of 40, 100, 1,000 and 5,000 francs.[2] Unlike the Société Générale, the Banque de Belgique published yearly financial statements.

Provincial incorporated banks

There were several small chartered banks outside of Brussels. Liège had the Banque Liégeoise et Caisse d'Epargne (roughly, Liège Commercial and Savings Bank), established in 1835 by local merchants and private bankers. Its nominal capital was 4 million francs, but capital actually paid in was just 692,000 francs. The bank's note issue was 43,000 francs the first year but fell thereafter until 1850. Notes circulated only around Liège (Chlepner 1926: 67; Buyst et al. 2005: 232). The Banque de Flandre in Ghent, also called

2 At the time, 40 francs was more than a week of wages for an average worker. There was in the nineteenth century a widespread feeling that banks should not be allowed to issue notes for 'small' denominations because the average person would be better off not assuming the credit risk of accepting notes rather than coins in everyday transactions. Hence governments often prohibited banks from issuing notes for, say, less than £1 or $5. In France, the lowest note denomination was 250 francs until 1847, when it fell to 100 francs.

the Banque Gantoise, opened in in 1842. Its activity was restricted to mortgage lending and advances on current account. It was entitled to issue up to 4 million francs of notes, in amounts of 1,000, 250, 100 and 25 francs. The bank opened branches in Brussels and Termonde in 1845, but closed them in 1847 (Chlepner 1926: 228–32).

Table 4.1 Banks in Belgium's free banking era, 1835–50

Bank	*Headquarters*	*Began*	*Authorised life (years)*	*Authorised capital (mn francs)*
Major banks				
Société Générale	Brussels	1822	27	~105[f]
Banque de Belgique[a]	Brussels	1835	25	20
Provincial banks				
Banque d'Anvers[a,c]	Antwerp	1827	25	25
Banque Liégeoise[a]	Liège	1835	40	4
Banque de Flandre[a]	Ghent	1842	25	10
Banque Commerciale d'Anvers[b]	Antwerp	1837[e]	25	25
Banque de l'Industrie	Antwerp	1838[e]	25	10
Mortgage banks				
Banque Foncière[c]	Brussels	1835	99	25
Caisse Hypothécaire[d]	Brussels	1835	60	12
Caisse des Propriétaires[d]	Brussels	1835	99	2
Private banks in 1833				
Brussels, 21 banks; Antwerp, 11; Ghent, Mons, 9 each; Liège, 7 (2 failed in 1838); Namur, 4; Louvain, Ostend, Verviers, 3 each; Charleroi, Spa, Tournai, 2 each; Alost, Bruges, Courtrai, Menin, Saint-Nicolas, Ypres, 1 each. Some issued small amounts of notes.				

[a]Issued notes. [b]Allowed to issue notes but did not. [c]Connected with Société Générale. [d]Connected with Banque de Belgique. [e]Closed by 1850. [f]50 million guilders.

Sources: Chlepner (1926: 30, 84; 1930: 15); Trioen (1841: 1–114).

In Antwerp, the Banque d'Anvers, which opened in 1827, was an enlargement of the local branch of Société Générale, which determined that growing commerce in the city was best served by converting the branch into a separate, affiliated bank (Brion and Moreau 2008: ii). Its notes circulated in the region of Antwerp. The Banque Commerciale d'Anvers was created in 1837 with an authorised capital of 25 million francs but started with only 5 million paid in. It was the victim of a bank run and closed in 1848. The Banque de l'Industrie opened in in 1838 with a capital of 10 million francs, half of which was subscribed. It seems to have suffered losses from a crisis in the textile industry, and in 1846 and its shareholders decided to close it (Chlepner 1926: 234–36). Published information on the provincial banks is scanty.

Mortgage banks

In 1834, a group of Brussels investors applied to establish the Banque Territoriale, a note-issuing bank dedicated to real estate loans. Their idea was to promote the circulation of capital 'trapped' in real estate. The government conditioned its approval of their charter on the bank not having power to issue notes. The investors complied, changed the bank's name to Banque Foncière, and established it in 1835. It was closely connected to the Société Générale. Two similar banks were also created in 1835, the Caisse Hypothécaire and the Caisse des Propriétaires. Both had close ties with the Banque de Belgique, which announced its willingness to accept the securities they issued. The arrangement can be seen as a way to bypass the ban on note-issuing banks based on real estate, since the Banque de Belgique issued notes.

Bank activities

Belgium was apparently unique among historical cases of free banking in that the two major banks were 'universal' financial institutions that combined typical short-term commercial lending with long-term investment banking activity. The outlines of their activities are clear, even if some details are not. The Société Générale published no financial information during most of the free banking period – though a long-time director did publish historical balance sheets later (Malou 1863) – and the Banque de Belgique changed the reporting categories in its published annual balance sheets, making consistent comparisons over time hard.

On the liability side of the balance sheet, as we have seen, the two major banks and several others issued notes. The balance sheet of the Société Générale did not distinguish banknotes merely held in the vault from notes in circulation. The Banque de Belgique did distinguish, and for it, for the years we have figures, notes in circulation averaged 16 percent of total liabilities, though with wide variations. Around 1838, the estimated note circulation of all Belgian banks combined was around 20 million francs, of a total money supply of about 200 million francs (Chlepner 1926: 84).

The banks offered current accounts (demand deposits) that paid no interest, and savings deposits that paid interest but could only be withdrawn with a delay. As we mentioned, the Société Générale took over a number of savings banks after the Belgian revolution. The interest rate on savings deposits was 4 per cent on the first 2,000 francs and 3 per cent on the remainder, up to a ceiling of 4,000 francs. A client had to notify the bank a week in advance to withdraw funds – for the time, a short delay for an interest-bearing deposit. These characteristics led savings deposits to grow from 19 million francs in 1835 to 45.9 million in 1838. In 1838 the Société Générale increased the advance notice required to withdraw deposits to 45 days. Even so, the product remained appealing and the amounts invested reached 61.6 million francs in 1842. The Société Générale then discouraged savings deposits by raising the advance notice required for withdrawal to 60 days and restricting the 4 per cent interest rate to the first 1,000 francs (3 per cent being paid on the remaining amount). In 1843 the bank adopted a flat interest rate of 3 per cent on all new savings. The strategy worked: savings deposits fell to 23.4 million francs in 1848 (see also Chlepner 1926: 99).

The Banque de Belgique's savings deposit service imposed a delay of three days for withdrawing amounts below 100 francs and five days for greater amounts. The service offered 4 per cent interest with a 5,000 franc ceiling. In 1843, by which time savings deposits had risen to 1.9 million francs, the bank became concerned that they were becoming too costly and it imposed further restrictions on them. Savings deposits fell, to such an extent that during the 1848 banking crisis they bottomed out at a mere 1,000 francs.

Shareholders' equity and reserves (retained earnings) were much higher than they are for today's banks. For the Société Générale they averaged 32 per cent of total liabilities from 1835 to 1850, while for the Banque de Belgique they averaged 59 per cent.

The Société Générale also had liabilities that other banks did not, related to its role as the fiscal agent for the government and as a manger of crown lands for William I and then the new Belgian government. It enjoyed corresponding assets, which were a source of financial strength because they were less volatile than private sector assets.

On the asset side of the balance sheet, banks made short-term loans to businesses, directly or by discounting commercial bills of exchange, did some lending to households, traded foreign currency, and invested in government securities. They did some lending based on mortgage collateral, but the two major banks had affiliated firms that specialised in mortgage lending. Their short-term commercial and household lending was much like that of banks elsewhere at the time, so we will omit further discussion of it, except to remark that the provincial banks were more focused on it than the major banks were. For instance, the Banque de Flandre had a portfolio fluctuating around 50 million francs for its first few years (Chlepner 1926: 82), bigger than the Banque de Belqigue.

The Société Générale and the Banque de Belgique were remarkable for their investment banking activities. They became what we would now call venture capitalists for an array of firms that arose as Belgium turned into the second country in the world to become heavily industrialised, after Britain. They pursued businesses, often family owned, that had great potential but lacked financial resources, and converted them into incorporated companies. They underwrote the initial public offerings, collecting fees, reserving some stock for themselves, and appointing members – often directors of the bank – to company boards. By using their political influence, the banks managed to avoid refusals, delays or crippling restrictions that the government might have imposed when granting licences to incorporated companies not under their patronage. In addition, once a bank became a shareholder in a company, the company enjoyed easier terms for discounting bills, easier access to credit (with company shares as collateral), greater influence with the authorities, and a better international network (Lebrun 1980: 176–79). 'Of the 150 *sociétés anonymes* [corporations] set up in Belgium between 1833 and 1838, and with a combined capital of 288.5 million francs, 24 (combined capital of 54 million francs) were created under the aegis of the Banque de Belgique, as against 31 (combined capital of 102 million) under that of the Société Générale' (Wee and Verbreyt 1997: 50). Each of the major banks thus became the centre of an unofficial financial-industrial conglomerate. The Société Générale was most involved with companies in coal mining, metallurgy, engineering and textiles. The Banque de Belgique was involved in the textile industry in Liège and Verviers, metallurgy in Liège, and non-ferrous metals and glass.

The two banks established affiliates to offer various financial services. In 1835 the Société Générale created the Société de Commerce de Bruxelles, with a capital of 10 million francs, and the Société Nationale pour Entreprises Industrielles et Commerciales, with a capital of 15 million. They created incorporated companies and took shares in them. Often both the parent bank and its affiliates held shares in the same company. In 1837 the Banque de Belgique created a venture capital arm, the Société d'Industrie Luxembourgeoise (Chlepner 1926: 70, 73).

The banks also created mutual funds to encourage small investors to take shares in the companies the banks were involved in. In 1836, the Société Générale helped establish the Société des Capitalistes Réunies dans un But de Mutualité Industrielle (roughly, Company for Joint Industrial Investment). The public called this company the Mutualité. Its capital was 50 million francs, increasable to 100 million, although only 12 million were actually paid in at the start. The similar mutual fund founded under the patronage of the Banque de Belgique in 1837 was the Société des Actions Réunies (United Shares Company) (Chelpner 1926: 71–73). Its purpose was to allow small investors to take a share in the big industrial operations and in government securities and to reduce risks through diversification. The company insisted on safety and promised to not invest in more than 25 per cent of an issue. The public was allowed to subscribe to the company's capital in shares for 3 million francs. The rest of the capital was subscribed using the stock of the Banque de Belgique or companies under its patronage for payment (Chelpner 1926: 72–73).

By taking equity shares instead of debt, the banks exposed themselves to high risks. Even when they granted credit, it was often long-term loans collateralised with equity shares. If a company encountered trouble, the shock would affect both the loan and the underlying collateral simultaneously. In summary, the assets of both banks were not very liquid.

The Société Générale and the Banque de Belgique also extended loans to stockbrokers. At the time, for stockbrokers as for other investors, at the initial share offering, investors were only required to pay 10 per cent initially, and occasionally no money down was required. Stockbrokers often borrowed the funds for their downpayment from one of the two banks. Later payments might be, for instance, 20 per cent each at four months and eight months, and 25 per cent each at 12 months and 16 months (Chelpner 1926: 88–89). Such long periods for full payment created high leverage and exposed brokers and the banks who lent to them to corresponding risks, especially in financial crises such as those that occurred in 1838 and 1848.

Competition and regulation

After the 1830 revolution a climate of freedom and free market ideas predominated in Belgium. Contrary to the formal requirements of the law, companies declared themselves to have limited liability without government permission. For example, the Mutualité, mentioned above, opened in 1836 without a licence and only received one in 1841 (Chlepner 1926: 71–71, 142). However, the Court of Cassation, one of Belgium's supreme courts, ended the period of relaxed incorporation by declaring on 26 May 1842 that limited liability companies had no legal existence without government approval.

Even before 1842, though, the government enforced the law of incorporation for banks. The Banque de Belgique received permission to operate in 1835, but the government refused a number of other requests. For instance, in 1838 it turned down a group of reputable English investors wanting to establish a Brussels-based Banque Anglo-Belge (Buyst et al. 2005: 22–23). In 1840, the Banque de Belgique was still feeling the impact of its near-failure in 1838 and it needed to raise additional capital. The government denied permission to the same group of English investors to buy stock in the bank. They finally obtained a licence in 1840 to create a bank in Ghent, where they established the Banque de Flandre in 1841. The Société Générale underwrote the public offering of shares for the new bank (Chlepner 1926: 64, 229–31).

The charters of incorporated Belgian banks limited their note issue to the amount of their authorised capital, a regulation common to many banking systems of the time. In practice the limit was too high to be binding, unlike the case in some other historical free banking systems. The government did not allow mortgage banks to issue notes. Otherwise banks had substantial freedom, including to branch and to engage in various lines of business. Belgium did not have a formal body of bank regulatory law; any restrictions peculiar to banks were written into the charters of individual banks.

The government's unwillingness to licence other incorporated banks in Brussels, the financial centre of the country, created a de facto duopoly. Belgium did not have a powerhouse private investment bank, comparable to the Rothschilds or Baring Brothers, that rivalled the incorporated banks in resources and influence. Provincial banks could establish branches in Brussels, but never attained prominence in the way that some English provincial banks did in London. The duopoly, however, did not prevent rivalry. For example, the Banque de Begique hoped to become the government's fiscal agent. It offered to pay interest of more than 1 per cent on government deposits, which contrasts with the fee that the Société Générale charged. The Société Générale used its political connections to preserve the coveted government deposits and to continue to charge the government for them.

We have seen no evidence that the two major banks colluded or even coordinated in financial services. However, both neglected discount activity. They only worked with big companies, while smaller companies used private bankers for discount and paid higher discount rates, up to 8 per cent, if they were able to discount their bills at all (Chlepner 1926: 310–11).

The Société Générale initially issued notes in Dutch guilders (florins). In 1832, the Belgian government switched to the franc, equivalent to the French franc, as the unit of account. The bank immediately asked for permission to issue notes in francs, but the government did not grant it until 1837 because of political tensions with the bank (Buyst et al. 2005: 22–23). The Société Générale found a workaround earlier in 1837 by having its affiliate the Société de Commerce de Bruxelles issue franc-denominated notes but calling them cash vouchers (*bons de caisse*) (Chlepner 1926: 308–9). The Banque de Belgique only ever issued notes in francs.

The two banks initially accepted each other's notes. There were no specific rules for clearing, but usually when one bank had gathered 1 million francs of the other bank's notes, it would inform its counterpart and clearing would happen in a day or two. Note clearing generally took place twice a month. The bank having an excess of the other bank's notes would just keep it for the next clearing, so bullion settlement of balances was rare (Chlepner 1926: 156, 158). This system broke down in the banking crisis of 1838, after which the Société Générale and the Banque de Belgique refused to accept each other's notes. Belgian banks never tried a Scottish-style option clause for notes; if they had, the government might not have allowed it.

The crisis of 1838

Belgium's somewhat free banking system suffered crises in 1838 and 1848. The 1838 crisis originated from the risk of war against the Netherlands. Additionally, the events of the time included recent financial crises in Britain and France and a slowdown in the domestic metallurgical industry.

On 4 December 1838, the Société Générale had gathered 1 million francs of Banque de Belgique notes, so the banks conducted a clearing. On 6 December, a conference in London that was attempting to settle unresolved issues between Belgium and the Netherlands rejected changes to the guarantee treaty proposed by Belgium. The Belgian cabinet received the decision on 10 December. The same day, the Société Générale requested a second clearing since it again had 1 million francs of Banque de Belgique notes. The request caught the Banque de Belgique by surprise; its managers were not expecting another clearing before mid December. The bank was illiquid and asked the Société Générale to delay the clearing for an additional day. It was hoping to liquidate some of its assets and was betting on a government rescue. The Société Générale accepted but informed its competitor that it now had 1.2 million francs for clearing. On 12 December, the Banque de Belgique came with only 1.125 million francs to settle the clearing. It was now obvious to the Société Générale that its rival had serious liquidity problems and that it was the perfect moment to deliver a fatal blow.

On Saturday, 15 December, the Société Générale presented 300,000 francs of Banque de Belgique notes. It did not wait until the amount reached 1 million francs, and instead of using the conventional private method of clearing, it sent an employee to the counter of the Banque de Belgique during business hours requesting redemption of the notes in the presence of customers. The Banque de Belgique lacked funds to redeem all the notes. Its cashier claimed to be so busy that he lacked time for the transaction, and he asked the employee to return on Monday, 17 December. The Société Générale's employee vainly insisted, then returned to his bank with the unredeemed notes. The Société Générale's governor told the employee to go back the same day and to insist on immediate payment. The Banque de Belgique's cashier told him to come back on the 18th. The Banque de Belgique used Sunday, 16 December to squeeze its debtors for cash. It was also still hoping for a government rescue. On 17 December at 1 a.m., the government informed the bank that no rescue would take place. The Banque de Belgique suspended payments the same day. The bank's assets exceeded its liabilities, so technically it was illiquid, not insolvent.

The Banque de Belgique was insufficiently cautious. Lack of knowhow and experience led the bank to expect the demand of notes to be like previous years' demand, as its director, Charles De Brouckère, confirmed: 'The management, in no way expecting an accident in the first days of this specific month of December, had a well-stocked treasury, saw that the note circulation was consistent with previous times, and was gathering in Paris the funds necessary to pay the interest [i.e. dividend]' (Chlepner 1926: 157). Between the date the Société Générale requested a second clearing (10 December) and the day the Banque de Belgque suspended payment (17 December) an entire week passed. During that time the bank should have acted promptly to bolster its finances instead of waiting for a government bailout. The bank should have increased all its lending rates substantially, stopped all discount operations, and announced the acceptance of the Société Générale's notes on favourable terms, such as a small premium to face value or favourable deposit terms. These measures would have allowed the Banque de Belgique to reduce its note supply, increase the amount of Société Générale notes it would be able to present at the next clearing, and attract bullion as a hedge against liquidity shocks.

The default sparked runs on all other Belgian banks. The Société Générale surmounted the run with the help of its strong ties to the Paris financial market. It liquidated its French treasury bonds and withdrew its deposits in French banks, converting them into 20 million francs in French silver 5-franc pieces, which it brought to Belgium for meeting demands to convert notes and deposits into coin (Chlepner 1926: 98, 167). Because the crisis was localised to Belgium, French banks were capable of meeting the Société Générale's needs. The Société Générale also restricted discounting, accepting only bills maturing in a maximum of six weeks, and at times it completely ceased discounts. The bank also tried a public relations strategy to calm depositors. On 17 December it issued a press release declaring its willingness to respect the contract signed with government, fully guaranteeing all funds deposited at its savings bank. In reality, no such contract existed. The bank's status as fiscal agent to the government also gave it access to inflows from tax payments, which the Banque de Belgique lacked.

In Liège, two banks went into liquidation. In addition, some private bankers who rediscounted bills at the two big Brussels banks suspended their operations.

Banks' restrictions on discounting and credit during the panic, coupled with the prospect of war with the Netherlands, created big problems for many companies. The government placed orders for coal and railway materials as a kind of fiscal stimulus, but it was ineffective. The government then decided to rescue the Banque de Belgique to protect the interests of depositors and industry. On 22 December 1838 the government offered the bank a loan of 4 million francs at 5 per cent interest, a moderately high rate. On 26 and 27 December, the lower and upper houses of the parliament approved the loan, and on 1 January 1839 it received royal assent. The government appointed three commissioners to supervise the affairs of the bank and balance its needs against those of borrowers. The rescue allowed the bank to resume payments on 4 January. It started by fully reimbursing saving bank deposits and small notes (40 and 100 francs) and partly satisfying other demands for payment. It progressively extended reimbursement until reaching a full acceptance of all type of notes on 18 March 1839. On 19 March the lower house of parliament approved a treaty with the Netherlands and war tensions vanished. Finally, on 20 June the bank made a final payment to creditors and confidence returned.

The insolvency of the Banque de Belgique was a huge embarrassment for its management. The bank had been created as leverage against the Société Générale and as a prospective ally to the government. However, the government never granted the bank the status of a fiscal agent, and it refused to lend to the bank on the crisis day of 17 December, even though the treasury had 10 million francs available in its account at the Société Générale. The bank's shareholders, after debating whether to liquidate the bank, decided on 22 March 1838 to keep it in business and replace the management (Chlepner 1926: 177–78).

The new management reduced leverage and risks. It reduced principal-agent risk by converting equity into debt – the opposite of usual loan workout procedures. It then tried to reduce the default risk on lending by securitising debt into bonds of 1,000 francs paying 5 per cent interest. It gave some of the bonds to the government as collateral for the rescue loan. The bank hoped to sell the rest to the public, thus making the assets liquid (Chlepner 1926: 179). The bank invested funds from savings bank clients in lower-yielding but more secure government bonds rather than in stocks, and added a clause entitling it to redeem savings deposits in government bonds (Chlepner 1926: 101). It ceased to invest new funds into stocks, channelling them instead into discounts. It raised 10 million francs in new capital. Finally, it added to its articles a provision that any new capital or liability granted to the bank could only be used to finance short-term operations.

The Banque de Belgique took at least until 1847 to repay its loan to the government.

The crisis of 1848 and the end of free banking

After several sluggish years following the insolvency of the Banque de Belgique, starting in 1844 a railway boom gave a fresh impulse to industry, mainly metallurgy. The two major banks reached their largest size in that year: the Société Générale had 267 million francs in assets and the Banque de Belgique 66 million. In 1846 and 1847 conditions worsened sharply. Industrial unemployment rose and a poor harvest produced a food crisis. Flanders was particularly affected and the government tried to increase its spending to ease the recession. This resulted in a further deterioration of public finances, an increase in interest rates, and a drop in the price of sovereign bonds. Finally, the spillover of the 1847 British and French financial crises, related to the end of the railway mania, made things worse (Chlepner 1926: 209–10).

In February 1848, the outbreak of revolution in France created a panic in Belgium. Given Belgium's strong political, economic and cultural ties with France, Belgians considered the revolution a prelude to chaos and possibly a French invasion. The Brussels stock exchange closed on 25 February after the crash of industrial and sovereign securities, and the Antwerp exchange followed the next day. People holding any type of paper wanted to convert it into bullion. The Banque Commerciale d'Anvers suspended payments on 28 February; the Société Générale did not come to its rescue. The circulation of notes shrank dramatically during this period. The panic began to subside when the French government made its peaceful intentions known. Withdrawals of bullion ebbed on 4 March and the stock exchanges reopened on 8 March. The episode, however, was only beginning.

Belgian workers from Paris returned home armed and tried to foment revolution in Liège and Hainaut provinces. A second round of bank runs and market crashes started, fuelled by France floating its currency on 15 March. Banks reacted by suspending their discount operations and refrained from renewing maturing loans. Businesses were in difficulty before the crisis, and now they were suffering both falling activity and a credit crunch. Demands for public intervention became increasingly insistent but government finances were already in bad shape (Chlepner 1926: 240). Belgian banks were experiencing a liquidity squeeze and they asked the government to follow France off the bimetallic standard.

On 20 March 1848 the government introduced a bill to make the notes of the Société Générale and the Banque de Belgique forced tender. The bill allowed them to suspend the convertibility of their notes except for those of 50 francs or less. It also permitted new issues of notes of up to 20 million francs by the Société Générale and 10 million francs by the Banque de Belgique. The government guaranteed the notes. In return, the banks had to deposit collateral with it, such as stock shares, real estate and government bonds. Other banks were not allowed to suspend convertibility of their notes, but the law provided for the Société Générale and the Banque de Belgique to each issue up to 2 million francs of notes to lend to other banks. The bill also provided for the creation of a public discount bank whose capital would be 8 million francs, funded equally by the notes of the two big banks. The bill passed in parliament and gained royal assent the same day; it was published the next day.

The Banque de Belgique was in a strong position to weather the crisis thanks to the measures it had taken after its 1838 insolvency. Savings depositors rushed to withdraw their savings. The savings service was fully invested in government bonds and its contract with depositors allowed it to pay them in government bonds. Savers wanted payment in bullion, though, and the matter was not resolved until 1852, when the bonds appreciated and the bank finally paid the depositors in cash and kept the bonds. Demand deposits were invested in discounts and short-term lending, so it was feasible to squeeze the bank's debtors for cash. However, the government decision to float the currency actually allowed the bank to expand its loans. The opportunity to escape from the stringency of convertibility into gold and silver was too profitable for the bank to refuse, despite its solid finances.

The Société Générale on the contrary, had not felt any need to change after 1838, since it had remained solvent. Now it was the bank in trouble. Even the suspension of convertibility for large-denomination notes and permission to issue 20 million francs more in notes did not fully solve its problems. Accordingly, on 22 May 1848, the government enacted another law allowing the bank to issue up to 20 million francs in additional government-guaranteed notes, to deal with withdrawals from savings deposit. The bank was again required to offer collateral and to pay 4 per cent interest on the amount of notes it issued under the new law. It also had to issue an additional 12 million francs to buy zero-interest government bonds. The law made all the bank's notes inconvertible. The bank could not pay dividends to shareholders until it had retired all the notes issued under the law. It had to publish a balance sheet, a profit and loss statement, and an income statement at least once every quarter. Finally, government commissioners would supervise the bank.

The Banque Commerciale d'Anvers failed in the crisis.

After the government's 1838 bailout of the Banque de Belgique, there had been criticism that Belgian banking needed reform. The most frequently proposed solution was supposedly to improve asset quality by directing banking activity toward discounting instead of investment banking. Other critics, including the economic writer François De Pouhon (1847: 144–54), argued for creating a central bank. For De Pouhon, the harsh terms the Société Générale and the Rothschilds demanded to make loans to the government showed the need for a central bank that would collect savings and invest them in government bonds. Louis Chitti (1839) proposed to convert the Banque de Belgique into a government bank. Jules Malou, minister of finance and decades later prime minister, in 1846 suggested merging and nationalising the two major banks. Others, mainly in the press, proposed to grant a monopoly of note issue to the Société Générale.

After the 1848 crisis, sentiment for creating a central bank was crystallised by the proposal of Walthère Frère-Orban, the minister of finance. The central bank, the Banque Nationale (today the Banque Nationale de Belgique), was to be owned equally by the Société Générale and the Banque de Belgique, with no government participation – a feature that received heavy public criticism. (Years later, the government took ownership of half the shares.) Some members of parliament opposed a central bank and argued for competitive note issue. There were also members who argued for maintaining the fiat currency system, whereas one of the goals of the central bank was to return to convertibility into gold and silver.

The law creating the Banque Nationale did not explicitly grant it a monopoly on circulation. In practice, though, the government did not allow any new charters to include the power to issue notes. The Banque Nationale took over the function of government fiscal agent from the Société Générale. The law creating the central bank passed on 5 May 1850 and the bank opened on 2 January 1851, ending the free banking era. The Banque de Belgique ceased circulating banknotes in 1851, while the Société Générale withdrew its notes more gradually. The Banque Liégeoise, a small regional issuer, was the last to retire its notes, in 1875.

Conclusions

Belgium's free banking episode had three distinguishing features. The first was the unwillingness of the government to allow more than two incorporated banks with headquarters in the key Brussels market. That being said, two banks were enough to provide competition. The banks did not merge, nor from what we can discern did they collude to ensure extraordinary profits. Sometimes two major firms are all an industry needs to be highly competitive.

The second distinguishing feature was that the two major banks combined commercial and investment banking activities. In that respect Belgium was apparently unique among historical free banking episodes. The final distinguishing feature was the two banking crises in the 15 years of the system. The danger of investment banking is that it can make the asset base illiquid, as the Banque de Belgique found out in its near-death experience in 1838. It changed its ways and became more liquid. The Société Générale, whose role as the government's fiscal agent gave it access to a steady stream of highly liquid tax payments, came through the events of 1838 more easily, but did not change its ways and then in 1848 suffered the kind of problems the Banque de Belgique had a decade earlier.

From our wider study of a variety of monetary systems over a long span, we doubt that any trouble-proof monetary system exists. Belgium's experience under central banking has also been punctuated with banking crises or near crises, and exchange-rate devaluations or suspensions, notably those of 1870 (the Franco-Prussian War), 1873 (worldwide financial crisis), 1914 (World War I), 1925–26 (collapse of a currency peg), 1931 and 1934–35 (the Great Depression), 1939 (World War II), 1971–73 (collapse of the Bretton Woods international monetary system), and 2008 (the failure of Dexia, a Franco-Belgian financial group).

5 FREE BANKING IN CANADA

Kurt Schuler

The beginnings of free banking, 1817–67

Canada had experience with note issue long before the first banks opened. From 1685 to 1713 and from 1729 to 1760, the government of the French colony of Quebec issued makeshift promissory notes by cutting up and signing playing cards. For the first several years of both periods of playing-card money, the government redeemed the cards promptly when the next ship with gold and silver coin came from France. Later, though, it used forced-tender issue as a means of inflationary finance. Both periods ended with the playing-card money depreciating by one-half or more (Shortt 1986: 105–99). British colonial governments in Quebec, Nova Scotia, New Brunswick and Prince Edward Island also issued paper money in the 1700s and early 1800s, which likewise depreciated. Merchants' promissory notes, though widely used for small sums, were generally disliked, because redemption was often in goods rather than in money. There was a need for a more reliable, widely acceptable medium of exchange.

After abortive attempts as far back as 1792 to found banks in the larger towns in Canada, the Bank of Montreal opened in 1817. It modelled itself on the Bank of the United States, though with the vital difference that it had no official sanction. To be chartered as a limited liability corporation required a special act of the legislature, but the Bank of Montreal and two other banks that opened soon afterwards in Quebec (then called Lower Canada) operated as self-declared corporations until they secured charters from the legislature in 1824 (Shortt 1986: 72–76).

Banking in Lower Canada was competitive from the start. Banks there accepted each other's notes and regularly cleared notes and cheques with their rivals. The Bank of Montreal established a few branches soon after opening its main office. By 1822, Ontario (then called Upper Canada), New Brunswick and Nova Scotia also had banks, but all were monopolies owned by politically privileged groups.[1] (Prince Edward Island and Newfoundland, the other provinces existing at the time, did not have banks until decades later.) The legislatures of the provinces with monopoly banking refused to grant charters to potential rivals. Bank promoters were reluctant to proceed without charters because the partnership form of organisation was awkward and riskier to stockholders than the corporation, and possibly illegal for banks in some provinces. Geographical barriers and local laws stymied interprovincial branch banking, which could have brought competition.

The fight to gain additional bank charters became a leading political issue in the provinces with monopoly banks. Would-be rival banks appealed to local pride and to disgruntlement with the monopoly banks' lending practices, which gave political opponents of the existing ruling parties less than a fair share of loans. As the population grew and as democratic ideas made headway, agitation for more banks broke the banking monopolies. In 1832, legislators supporting the Bank of Upper Canada agreed to grant a charter for the Commercial Bank, to break an impasse in which the Commercial Bank's supporters had refused to grant the Bank of Upper Canada a much-needed increase in authorised capital. The same year, the Nova Scotia legislature granted a charter to the Bank of Nova Scotia, giving Halifax's less wealthy citizens a convenient means of challenging the unchartered Halifax Banking Company, a partnership of the town's richest merchants. In 1834, the governor of New Brunswick exercised his power to grant a charter independently of the legislature, allowing the City Bank to open in St John in rivalry with the Bank of New Brunswick (Shortt 1986: 289–91; Breckenridge 1894: 156, 159).

Once the door to competition opened, it could not be shut. Provincial legislatures embraced competition mainly out of political expediency, not out of devotion to laissez-faire. Legislators who opposed new bank charters incurred the wrath of organised, vocal groups of voters. By the middle 1830s,

1 The best summary of Canadian banking history is McIvor (1958). Shortt (1986), which originally appeared as articles in the *Journal of the Canadian Bankers' Association* from 1896 to 1925, remains the standard work on the period up to 1880. Breckenridge (1894) has the keenest appreciation of how freedom from much regulation enabled the Canadian banking system to become stable and efficient. For an academic article, see Wells (1989).

The Bank of Upper Canada's monopoly was not secure until 1823, when a rival unchartered bank failed because of inept management. New Brunswick chartered a small-town bank on the understanding that it would not expand to compete with the Bank of New Brunswick (Breckenridge 1894: 47, 155).

an unwritten rule had emerged in the provinces with banks that almost all parties able to raise a certain minimum of capital would be granted a charter. Canadian bank charters did not prohibit branching, as many American charters did, so branch networks became common.

Bank promoters who lacked the capital for a charter started unchartered banks in Ontario and Quebec in the mid 1830s, and in Prince Edward Island and British Columbia in later decades. They were 'joint-stock' banks whose organisation imitated that of British banks of the time. Joint-stock banks had unlimited liability but, unlike partnerships, their stock could be freely traded. In other respects the joint-stock banks operated on nearly the same legal footing as the chartered banks. Unlimited liability was apparently not a great deterrent to potential stockholders in that optimistic time, but none of the joint-stock banks ever became very large (Shortt 1986: 311–15; McIvor 1958: 58, 90). Unchartered banks ceased to exist after a federal law of 1870 made them illegal.

The British government in 1836 granted a royal charter to a group of investors who wanted to establish a Bank of British North America directed from London, but with all its branches overseas. The royal charter allowed the bank to establish branches in any Canadian province that consented. The bank soon had branches in every province then existing except Prince Edward Island. It was the first bank to come to Newfoundland. The Bank of British Columbia, founded in 1862 (no relation to the recent bank of the same name), was Canada's other royally chartered bank (Shortt 1986: 325–27; Rowe 1967: 506–7).

Branch banking was just one of the typical features of free banking that the Canadian system spontaneously evolved in its early years. Another was mutual note and cheque acceptance. Banks that refused to accept notes and cheques from rivals found such a policy self-defeating, because if the rivals accepted their notes, they had no offsetting claims to present when rivals demanded redemption in gold or silver. 'Note duelling' tactics also proved unfruitful, because they increased the reserves that all note duelling banks needed to hold without giving any particular bank a strong competitive advantage. Note duelling by rivals never made any Canadian bank fail. Routine acceptance and regular exchange of notes and cheques issued by rival banks in the same province quickly became the rule (Shortt 1986: 279, 312, 320; Shortt 1990: 11–12). Correspondent banking arrangements between banks in different provinces, plus the interprovincial network of the Bank of British North America, tied all the banks of Canada into a loose system by the late 1830s. Formal clearing houses did not arise until 1887, because bilateral clearing was satisfactory until then. It was the opinion of the writer of a manual for Canadian bankers that economies of scale sufficient to justify establishing a clearing house did not exist until there were at least seven banks in a city (Knight 1908: 137).

Competition also induced Canadian banks by the mid 1830s to offer interest on small time deposits and to experiment with Scottish 'cash credit' lending, which allowed borrowers to draw credit at will up to a fixed amount. Banks eventually ceased cash credit lending as unsuited to Canadian economic conditions, perhaps because of laws that prohibited banks from owning and lending on the security of land, the most important asset that many Canadians had (Breckenridge 1894: 62; Shortt 1986: 312).

Banks accepted locally issued notes and cheques of all banks at face value, but sometimes charged commissions on notes and cheques from distant areas of the same province, even those from their own branches. Discounts on notes and cheques issued elsewhere within a province seem not to have exceeded 1 per cent (cf. Denison 1966: vol. 1, 150; Shortt 1986: 304). The discounts reflected transportation costs and interlocal exchange rates, much as today's foreign exchange rates do. For instance, bank drafts on Quebec City were frequently at a slight premium in Montreal because certain provincial taxes could only be paid in Quebec City. Some large banks that redeemed notes and cheques at more than one branch had separately marked notes for each branch. Other banks only redeemed notes and cheques at their headquarters. Improved transportation apparently eliminated note and cheque discounts within provinces by the 1840s.

Discounts on notes and cheques from other provinces were much larger. Note discounts continued until 1889, four years after railroads linked Canada from coast to coast. Cheque discounts continued into the twentieth century, as in the US. Prohibitions on branching across provincial lines kept Canadian banks, except the Bank of British North America, from developing nationwide branch networks until the 1870s, which delayed the advent of the lowest-cost clearing methods. Also, until the provinces federated in 1867, although all provinces used the dollar as the unit of account, each province defined the dollar differently. Canada minted no gold and silver coins of its own at the time, so it used foreign coins. Instead of allowing the free interplay of market forces to determine the relative values of the various coins, most provinces established statutory ratings that overvalued some coins relative to their metallic content. Around 1837, for instance, the actual basis of the currency was the American gold $20 coin in New Brunswick, the British silver shilling in Upper Canada, the French silver crown in Lower Canada, and depreciated government paper issues in Nova Scotia and Prince Edward Island.[2] Newfoundland had no legal tender ratings. Undervalued coins vanished from circulation, giving rise to frequent complaints about shortages of them, and, less often, gluts of overvalued coins (Chalmers 1893: 402–12; Ross 1920: vol. 1, 458; Redish 1984).

During its first twenty years, Canada's banking system grew rapidly with few interruptions. Canadian banks suffered not at all during the US financial panic of 1819. The English panic of 1825 caused one small, frail Canadian bank to fail and imposed foreign-exchange losses on other banks, but it did not shake the banking system as a whole. However, the panic of 1837 caused a system-wide banking crisis. The panic was clearly of foreign origin: it began in England in late 1836. The Bank of England's refusal to lend at any price to firms importing cotton from the US led to failures in the cotton trade on both sides of the Atlantic early in 1837. An internal drain of gold and silver by apprehensive customers made New York City banks suspend gold and silver payments on 10 May in that year. Banks elsewhere in the US and in Canadian provinces except Upper Canada followed suit as soon as news of New York banks' action reached them, and Canadian banknotes were at a 6 per cent discount against gold within a week (Shortt 1986: 335–36).

The banks suspended payments in violation of their contracts with noteholders and depositors and without government approval. Even so, suspension was popular and officially tolerated because it seemed the least painful course of action. Suspension gave banks a breathing space to liquidate assets in an orderly fashion, avoiding 'fire-sale' losses. The exception occurred in Upper Canada, where the governor threatened to close down banks that suspended. Banks there suffered severe reserve drains, and had to contract loans more than banks in other provinces. The effect of the panic was said to be worse in Upper Canada than anywhere else in North America, and all banks there except the tiny Bank of the People eventually suspended payments with government approval in March 1838 (Shortt 1986: 344–50).

2 Nova Scotia's banks maintained a dual currency system, paying a premium over provincial notes for customers who dealt in gold and silver, despite a law forbidding it. After 1833, the government did not even accept its own notes for payment of customs duties; it would take only specie (Ross 1920: vol. 1, 420). Prince Edward Island had no banks yet.

In the Maritime provinces, banks resumed gold and silver payments at the end of the summer of 1837. Banks in Lower Canada resumed payments in May 1838, a few days after the US banks, but suspended again in December when a rebellion against British rule broke out. They resumed payments in June 1839. Banks in Upper Canada resumed in November 1839 (Shortt 1986: 358–59; Gibson and Schull 1982: 35). The panic of 1837 was the only system-wide peacetime banking crisis that Canada ever suffered. Comparing it with later years of stress on Canadian banks, the difference seems to have been that prohibitions on interprovincial branch banking kept the banks from being as large and as solid in 1837 as they later became.

As part of its strategy to quell the discontent that had caused the recent rebellions, the British government in 1841 united Upper Canada and Lower Canada into the Province of Canada. The united province established a uniform coinage and allowed unrestricted branching anywhere within its boundaries. Banks that previously had been confined to Upper Canada or Lower Canada now expanded into each other's home territory.

The new province's first governor, Lord Sydenham (Charles Poulett Thompson), was a follower of the British Currency School, and tried to introduce its principles into Canadian banking. The Currency School wished to make note currency behave in the same way as a purely metallic currency. It advocated monopolising note issue and subjecting the issuer to 100 per cent gold or silver reserve requirements beyond a certain ceiling. Sydenham proposed to establish a government-owned bank to issue notes, and to use its profits to finance public works. He justified his scheme with explicit reference to a sophisticated, though incorrect, theory of banking, which contrasts with the crude ideas that dominated later debates over banking regulation. Vigorous bank lobbying convinced the legislature to reject Sydenham's scheme, although it imposed a 1 per cent tax on banknote circulation as an alternative revenue-raising measure (Shortt 1986: 401–7, 413–14).

Canadian banks suffered losses in the depression years 1847 and 1857, but avoided the large-scale bank failures and suspensions or near-suspensions of convertibility payments that occurred in England and the US, Canada's largest trading partners.

In 1850, the Province of Canada imported bond-collateral banking, inappropriately called 'free banking', from the US. Bond-collateral banks had to buy specified government bonds as a requirement for issuing notes. Their note issues could not exceed their holdings of the bonds. The provincial government hoped that bond-collateral banking would increase demand for its bonds, which were a drug on the market. Only five bond-collateral banks were ever founded, and none achieved prominence. The bond-collateral and chartered banking systems existed side by side. No chartered bank joined the bond-collateral system because the bond-collateral requirement and the prohibition (later eliminated) on establishing branches did not nearly offset the advantages of a lower minimum capital requirement.[3] The bond-collateral banks all failed or became chartered banks by the end of the decade, and the legislature repealed the bond-collateral law in 1866 (Breckenridge 1894: 103–17).

The Province of Canada's finances had been troubled almost from the beginning because of deficit spending on unprofitable canals and railroads. By the 1860s, the government's credit was so bad that it could not sell bonds in the London market. To raise money, it proposed government legal-tender note issue, with incentives for banks to give up their own note issues. The Bank of Montreal favoured the plan, which would enable the bank to convert its huge government bond holdings into legal-tender notes. Many other banks, especially those heavily dependent on their note circulation for profits, vehemently opposed the plan. When the proposal came into effect in 1866, the Bank of Montreal was the only bank to give up its own note issue for a time, and even it later resumed note issue (Shortt 1986: 541, 560–69).

In 1866 there also occurred the first of three important bank failures. The Bank of Upper Canada, which had a favoured relation with the government of the Province of Canada, had been ailing for some years. Had stockholders been held to the double liability for the bank's debts that its charter specified, noteholders and depositors would probably have lost nothing. However, the government wanted to hide its dealings with the bank, and it did not enforce double liability. The provincial government ultimately lost $1 million of the deposits it kept with the bank, while other creditors lost $310,000 (Shortt 1986: 584–89; Breckenridge 1894: 134). The Commercial Bank failed in 1867 after its largest borrower defaulted, and the Gore Bank failed the following year. Both were bought by other banks, and noteholders and depositors lost nothing. No general runs on the banking system occurred during the failures of the three banks. Their passing left the Bank of Montreal with an unchallenged pre-eminence within Canada's banking system for the rest of the century.

3 The Bank of British North America used certain provisions of the bond-collateral law to issue notes for less than $5, which its British charter prohibited, but it remained a branch bank.

The heyday of free banking, 1867–1914

The Province of Canada, Nova Scotia and New Brunswick united to form the Dominion of Canada in July 1867. Ontario and Quebec were carved out of the former Province of Canada, and corresponded to the old provinces of Upper and Lower Canada. Other provinces joined the federation later, with the last, Newfoundland, joining only in 1949. The federation charter gave exclusive jurisdiction over banking and currency to the federal government. Almost immediately after confederation, banks were allowed to establish branches across provincial borders, and some quickly did so.

The new nation faced three problems in currency legislation. The first was to establish a uniform coinage. That was easily solved by extending the coinage standards of the former Province of Canada to the whole nation, and in particular by redenominating the currency of Nova Scotia, whose dollar was worth 2.67 cents less than the Canadian dollar. The Canadian dollar was a gold currency equal to the US gold dollar (not to the US 'greenback' of 1861 to 1879).

Canada's second problem in currency legislation was to establish a uniform banking law. Before confederation, minimum capital requirements, the number of years charters lasted, stockholder liability, and other details of bank charters differed among provinces and sometimes even among banks within each province. A federal Bank Act (Statutes of Canada 1870: c. 11, slightly revised as Statutes of Canada 1871: c. 5) replaced the system of provincial charters with a federal chartering system. Bank charters were granted to coincide with the ten-year life of the Bank Act, so that every time the Bank Act was revised, bank charters would be revised as well. The Bank Act's main provisions were: every bank was to have a government charter; at least $100,000 of paid-in capital was required; note issue was not to exceed the amount of paid-in capital; stockholders bore double liability for a bank's debts if it should fail; banks could not engage in non-banking business or mortgage lending; they were to accept their own notes at face value at all branches; and they had to hold an average of half of their total reserves in government legal-tender notes (to force a demand for government notes), although there was no minimum reserve ratio. Similar provisions had previously existed in most provinces.

Government note issue was the third and most difficult currency problem. The federal government agreed to assume liability for the note issues of the Province of Canada and Nova Scotia, and later of Prince Edward Island.

Most banks wanted the government to stop issuing notes (the Bank of Montreal again being the chief exception). Many politicians, on the other hand, favoured a government monopoly of note issue or a bond-collateral system. The banks and their allies buried a government bill of 1869 that would have established bond-collateral banking (Shortt 1986: 576–81). The government would not give up note issue, however, because it wanted the revenue that note issue provided. The Dominion Notes Act (Statutes of Canada 1870, c. 46) was therefore passed to permit the government to issue up to $9 million in legal-tender notes against a gold reserve of at least 25 per cent. Any issue in excess of $9 million had to be covered dollar for dollar by extra gold reserves. To force a demand for Dominion notes in retail trade, banks were forbidden from issuing notes for under $5. (At the time, banknote circulation was about $15 million and Dominion note circulation was about $7 million.) Beginning in 1892, successive governments increased gold reserves held against the Dominion note issue, which reduced the possibility that inadequate reserves would cause the government to take itself and the nation off the gold standard. The reserve ratio exceeded 80 per cent by 1911 (Curtis 1931: 20, 92–93).

During the 1870s and 1880s, Canadian banks spread from coast to coast. New banks crowded in alongside old ones, and the number of banks rose from 37 in 1867 to a peak of 51 in 1874. Thereafter, it steadily fell as failures and mergers thinned the field to a small number of banks, most of which had large nationwide branch networks. There were only 24 banks by 1914 (Neufeld 1972: 78–79). The number of bank branches, however, increased from about 150 in 1869 to over 4,000 in 1919, surpassing the US in branches per capita during the Canadian economy's great growth spurt around the turn of the century (Chapman and Westerfield 1942: 277, 340).

American prohibitions on branch banking and restrictions on note issue were responsible for several financial panics that beset the US in the late nineteenth century but had little effect on Canada's banking system. Almost every autumn, the demand for notes and coins rose because many farmers were paid in cash for crops. Bond-collateral requirements prevented US banknote circulation from accommodating the increase in demand, because they made the profitability of note issue dependent on bond prices, and not just on demand for notes. In Canada, note circulation was usually about 20 per cent higher in the autumn than at the seasonal low of note demand in midwinter, whereas in the US, it showed no seasonal variation. Interest rates, on the other hand, had no seasonal pattern in Canada and a strong seasonal pattern in the US. American banks could not easily expand their note issues to meet the increased seasonal demand for notes, and the effect spilled over into interest rates.

The US suffered minor credit stringencies almost every autumn from the 1870s until 1908, and major shortages in 1873, 1893 and 1907. During the major shortages, notes and coins went to a premium over bank deposits, and regular hand-to-hand currency virtually disappeared from circulation. To fill the gap, bank clearing-house associations and some corporations issued emergency currency. While technically illegal, emergency currency was useful and quite safe, and the American authorities turned a blind eye towards it because they understood that it was essential to trade (Timberlake 1984).

Canada suffered no note famines, no interest rate ‘spikes’, and few extraordinary business failures during the US panics. In 1893 and 1907, Canadian banknotes circulated extensively in the US as substitutes for American currency (Denison 1966: vol. 2: 260, 284–85), and in general, Canadian banks provided liquidity to the New York money market during times of severe financial stress (Rich 1989: 158–59), because short-term interest rates were so much higher in New York during such times than they were in Canada. The only notable adverse events for Canadian banks in this period were limited runs on some small banks in Montreal in 1879, local banks in Prince Edward Island in 1881, and both local banks in Newfoundland in 1894. All the runs had readily identifiable causes and did not spread to large banks or to other small banks with dissimilar loan portfolios. Only in Newfoundland did a run on one bank cause another bank to fail.

However, legal restrictions on note issue threatened to make almost all of Canada’s banks somewhat unstable by the early 1900s. In 1907, some Canadian banks took extraordinary measures to economise their customers’ use of banknotes, and the government issued $5 million of its own notes over the legal ceiling (Johnson 1910: 144–48). Since 1867, banknote issue had increased more rapidly than bank capital, and the legal limit on note issue finally threatened to become binding. The most logical remedy would have been to abolish the requirement that note issue should not exceed the amount of paid-in capital. Instead, the government offered only partial relaxations, but they were adequate until the basis of note issue changed completely during World War I. In 1908 the note issue ceiling was raised to 115 per cent of paid-in capital for the months of peak demand (Statutes of Canada 1908: c. 7). The Bank Act revision of 1913 (Statutes of Canada 1913:

c. 9) allowed banks to issue notes in excess of the previously established ceilings, provided the excess was backed dollar for dollar by gold deposited in a government vault.

Many American economists and bankers admired Canada's relatively unregulated banking system. The American Bankers' Association's 'Baltimore plan' of 1894 and a national business convention's 'Indianapolis plan' of 1897 referred to Canada's happy experience without American-style bond-collateral requirements. The Aldrich–Vreeland Act of 1908, which legalised clearing-house emergency currency, was a step towards note issue along Canadian lines. The US National Monetary Commission, formed after the panic of 1907, investigated Canada's system as a possible model, but rejected it in favour of central banking.

The one respect in which Canada imitated American note issue arrangements to some degree was in establishing a banknote guarantee fund under the Bank Act revision of 1890. There was a widespread sentiment that noteholders needed special protection from bank failures, because noteholders tended to be poorer than depositors and less able to withstand the consequences of a bank failure. The Minister of Finance proposed that banks be required to hold a minimum reserve ratio of 10 per cent against liabilities. The bankers' counterproposal was for a banknote guarantee fund, raised by taxing banknote circulation and available to pay noteholders of any failed bank. Like present-day deposit insurance, the banknote guarantee fund had moral hazard risks and would have been exhausted by any large bank failure, but by 1890 notes were a small proportion of total bank liabilities, so the moral hazard risk was small, and the fund stayed solvent because the largest loss to depositors from any single bank failure from the beginning of Canadian banking (1817) to 1914 was just $3.3 million, in the 1908 failure of the Sovereign Bank.

Central banking comes to Canada, 1914–35

Canada took a step towards central banking when it entered World War I. For the next two decades, Canada had a curious system under which the government could have controlled the money supply like a central bank but usually it did not.

At the beginning of August 1914, Canadian bank customers began redeeming large amounts of notes and deposits for gold, apparently fearing that the country would enter the recently begun war and suspend the gold standard. On 3 August, the government issued an emergency decree suspending the convertibility into gold of its own notes and permitting banks to do likewise with their notes and deposits. The emergency decree was regularised in the Finance Act (Statutes of Canada 1914, 2nd session, c. 3), which then became the basis of Canada's monetary system until 1935.

Inconvertible forced-tender government notes replaced gold as the basis of the monetary system. (Banks held the bulk of government notes as reserves, in special large denominations that did not circulate among the public.) To finance war expenditures, the government relied in part on inflation. Government note issue rose from $131 million in 1913 to $327 million in 1918. Bank liabilities in the same period rose from $1.147 billion to $2.340 billion, and the wholesale price index more than doubled (McIvor 1958: 112–13).

Under the Finance Act, the government set a discount rate at which it would lend government notes to the banks in return for their IOUs. The banks decided how much, if any, they wished to borrow at that rate. The Finance Act rate was often below the market interest rate, but the government made no attempt to limit the total amount of Finance Act borrowing. The banks, on the other hand, appear not to have taken full advantage of the opportunity that the Finance Act offered for credit expansion, perhaps because other banks may have interpreted Finance Act borrowing as a sign of weakness (McIvor 1958: 123).

Bankers, economists and politicians were generally happy with the Finance Act. They especially praised the emergency 'liquidity' that it offered the banking system. They evidently did not understand that the price of such liquidity was a potential for great inflation. Nor did they appreciate that the Finance Act system was markedly different from the pre-war free banking system. The bankers were a decidedly unphilosophical group: during hearings about the 1923 revisions of the Bank Act and the Finance Act, the general manager of the Canadian Bank of Commerce and vice-president of the Canadian Bankers' Association testified that he had never heard of the quantity theory of money, and remarked further that 'we do not want theories introduced into banking. If you get into theories, you are on dangerous ground' (HBC 1923: 379). The few dissatisfied parties at the hearings indicated that they favoured a complete shift to central banking, not a return to free banking.

The government informally restored the Canadian dollar's convertibility into gold for banks in 1922, and officially re-established convertibility in

July 1926. The Finance Act system had neither the automatic incentives for convertibility that had existed under the pre-war free banking system nor the conscious control of reserves or discount rates that exist under central banking. It was nobody's job to maintain convertibility, and the government unofficially suspended it in January 1929, following a drop in gold reserves from $109 million to $59 million in the preceding two months (McIvor 1958: 122). (The government officially acknowledged suspension in 1931.) Following the unofficial suspension, Finance Act borrowings rose a further 50 per cent from their already record post-war levels before the Great Depression set in at the end of 1929.

The Great Depression gripped Canada as tightly as it did the US. GNP statistics show similar percentage declines for both countries. (A floating exchange rate did not insulate Canada's economy, which depended heavily on trade with the US, from real declines in American demand for Canadian products.) The number of banking offices also fell by roughly the same proportion in both countries. However, Canadian banks weathered the Great Depression much better than American banks. No Canadian banks failed, nor did Canada suffer bank runs or impose 'bank holidays'. The extensive branch networks of Canadian banks had enabled them to spread lending risks across regions and types of borrowers (Chapman and Westerfield 1942: 108, 122, 357–58). Total losses to depositors and noteholders during the whole period up to the establishment of a central bank in 1935 were probably less than $30 million (cf. Beckhart 1929: 337), far less per capita than in the US. No Canadian banks failed from 1923 to 1985, while the US suffered thousands of failures during the 1920s and 1930s.

As the Great Depression deepened, a clamour arose for the government to do something to pull Canada out of it. Attempts to increase the money supply by forcing Finance Act borrowing on the banks in 1932 were unsuccessful (McIvor 1958: 133). Political opinion increasingly favoured establishing a central bank as an attempted cure for the Depression. Left-wing political parties had favoured a central bank since the 1920s on the grounds that it would subject the banking system to democratic control. The Liberal Party, which had previously opposed central banking, began advocating it in 1933, more from a perception of political advantage than from ideological conviction. The ruling Conservative Party would have been pilloried for inaction had it not taken measures that seemed to fight the Depression, and by 1934 it too advocated central banking. A bill to establish a Bank of Canada was passed in July 1934, and the bank opened in March 1935.

Economic debate about the merits or defects of central banking was generally carried on at a very low level. Advocates of central banking had extravagant hopes for it; some saw it as the first step towards nationalising the whole banking sector. Advocates did not explain what a central bank could do that the chartered banks were unable to do, and, especially, how a central bank would get Canada out of the Depression. Opponents of central banking put forward an even weaker case. Most defended the existing system because they were comfortable with it and apprehensive about the changes that central banking might bring. Only a few tried to point out real defects in the idea of central banking (Stokes 1939: 64–123), and even they saw the existing system as the only alternative to central banking; there was no thought of returning to the pre-war free banking system, because very few people understood how it had differed from the Finance Act system.

The Bank of Canada had no noticeable effect in ending the Great Depression. Canada did not recover from the Depression until British demand for Canadian products during World War II stimulated the economy. Over the long run, the Bank of Canada has been one of the better among the generally not very good class of central banks. After the end of the Bretton Woods system, Canada had several years of inflation exceeding 10 per cent from 1974 to 1982, but inflation then fell into mid single digits. Canada adopted an inflation target of 2 per cent a year in 1992 and has adhered to it.

Conclusions

Canada's free banking system was among the most impressive on record. It offered customers a wide range of services through convenient nationwide branch networks, caused few losses to depositors and noteholders, and maintained convertibility into gold or silver almost uninterrupted for about a century. Its efficiency and stability impressed many outside observers, especially in the US.

The qualities for which the Canadian free banking system gained renown were the result of vigorous competition under a political regime that interfered little in the banking business. The few defects of the system were mainly caused by needless regulations, such as the prohibition on mortgage lending (not completely lifted until 1967), legal constraints on banknote issue that began to bind around 1900, and early prohibitions (later dropped) against interprovincial branch banking. Central banking came to Canada mainly for political reasons, not for economic ones. Certainly in terms of long-run preservation of purchasing power, its record compares poorly with the record of free banking. Canada's commercial banking system has remained less trouble-prone than the US system, notably in avoiding the crisis that engulfed the US system in 2008.

Addendum (2023)

I have updated a few sentences to reflect the passage of time into the twenty-first century but have otherwise left the narrative unchanged. Since the original publication of this chapter there has been no detailed study of Canada's system specifically as a free banking system. Two books that approach the subject through the side door and have interesting detail are Calomiris and Haber (2014) and Mussio (2020).

6 FREE BANKING IN CHILE

Juan Pablo Couyoumdjian

Introduction

The first banking law in Chile was enacted in 1860 and authorised the establishment of note-issuing banks in the country (Ley de Bancos de Emisión, 23 July 1860). This free banking legislation was passed under the influence of the French economist, then advisor at the Ministry of Finance and professor of political economy at the Universidad de Chile, Jean Gustave Courcelle-Seneuil. As a result, free banking in Chile has long been studied as part of the larger influence of the French-liberal school in the country (e.g. Fuentealba 1945), and the (long) history of inflation and monetary instability in Chile has been considered a consequence of the alleged failure of the liberal free banking experiment (Espinoza 1913; Fetter 1931). But, as Hirschman (1963) has explained, the story is much more complicated, and more recent work has involved a more systematic examination of the free banking era in the country (Millar 1994; Muñoz Delaunoy 1996; Ross 2003; Briones 2004, 2016; and the papers included in the volume edited by J. P. Couyoumdjian 2016a).

After Independence in 1810 Chilean economic policy presented some significant reforms, but also some continuities. The opening of the economy to international trade is an obvious example of the first. From a monetary perspective, the continuation of the bimetallic monetary standard is a significant example of the second, although changes in the iconography of national coins (which had been coined at the National Mint in Santiago since the Colonial era) were naturally implemented and, some time later in 1851, the decimal system was adopted (Subercaseaux 1921). In an economy that was increasingly integrated to foreign markets and where no formal financial institutions existed, different types of market mechanisms evolved to deal with the demand for credit and the need for small change. Commercial and merchant houses played a key role in the development of new financial instruments, including the emergence of vouchers and other documents that served as paper currency. The promulgation of the law on stock companies in 1854 led to the establishment of banks in the country, although in a context where no formal banking law existed.[1] In a sense, it can even be said that the banking law of 1860 gave legal sanction to practices that had already been long established in the economy (Muñoz Delaunoy 2016).

During the nineteenth century the Chilean economy experienced an important export-led growth process. The economic expansion was related to the development of copper and silver mining and of the agricultural sector. After the War of the Pacific (1879–84), between Chile and Peru and Bolivia, the nitrate industry became the country's major economic sector, and was also the main source of Chile's fiscal revenues. The greater interdependence with the world economy led to the domestic economic cycle becoming increasingly related to international conditions, mainly via their effect on the trade balance. Under a metallic monetary standard, a deteriorating balance of trade had important internal consequences due to the consequent monetary drain. But whatever problems did exist along these lines they were kept under control during the first half of the century. As we will see, when Chile became involved in a war with Spain, in 1865–66, and the metallic standard was temporarily suspended, there was no major financial crisis and the country was able to return to a convertible monetary standard a couple of years later.

The Chilean banking law of 1860 established a system granting a high degree of banking freedom. Within a monetary system based on a (bi-) metallic standard, a system of competitive free banking implies that the notes issued by financial institutions should be redeemable in gold or silver, and that competition exist between different banks and their associated banknotes. Formally, a system of free banking was in operation in Chile up to 1898, when all of the monetary base was declared fiscal and banks were banned from issuing banknotes as long as the existing fiscal banknotes remained legal tender (Ley sobre Papel Moneda, no. 1054, 31 July, 1898, Art. 3). However, in reality, after the convertibility of the peso was abandoned in 1878, the Chilean banking system was no longer so free (J. R. Couyoumdjian 2016c).

1 Earlier than that, in 1849, Antonio Arcos established the short-lived Banco de Chile de Arcos y Cía., the first Chilean bank. On this general context see J. P. Couyoumdjian (2016b).

The 1860 banking law

During the first half of the nineteenth century, debates on monetary and financial issues assumed an increasing importance in Chile. Banks had not existed in colonial Chile and debates on the creation of these institutions began soon after Independence, although with no actual results. The existing monetary and financial problems related to a monetary standard with insufficient small change were worked out with roughly cut or minted divisionary coins (which in Spanish America were called '*macuquinas*'), and the emergence of vouchers and other documents that served as paper currency. On the other hand, merchant houses were the main providers of credit.

The national debates on monetary and financial issues of this era had to do with the role the state should play in this area, and the particular characteristics the banking system should have. Specifically, there existed some distrust in a competitive note-issuing banking system; merchants in Valparaíso, the country's main commercial city, expressed their reservations on this point quite forcefully.[2] Jean Gustave Courcelle-Seneuil, who was hired by the Chilean government in 1855, soon became engaged in these debates. While Courcelle-Seneuil was a member of the French liberal school and his tenure in Chile (between 1855 and 1863) coincided with an era of more liberal economic policy, his appointment was accidental.[3] As it was, the French economist had already worked (and published) on financial issues earlier in his career, before his arrival in Chile (see, for example, Courcelle-Seneuil 1853a,b).

Within a couple of years of arriving in Chile, Courcelle-Seneuil (1857) had written an article on note-issuing banks that was to be very influential in the national debate on banking. He defended such banks and laid out the alternatives at hand regarding their organisation for a country like Chile. On the first point, the French professor underscored the importance of banks in general while also noting that the usefulness of note-issuing banks had been shown by their actual operation in the country, whereby different institutions had been granted specific authorisations that included the

2 On this, see their 'Opinión del Comercio de Valparaíso sobre Bancos de Emisión', in *El Mercurio* (Valparaíso), 3 August 1855, p. 2, and the discussion in J. P. Couyoumdjian (2016b).

3 Although it must be noted that the Chilean government had directed its search for a professor of political economy and economic advisor in France, where the French liberal school was ascendent. Courcelle-Seneuil was, later, to be editor of the famous *Journal des économistes*; on this, see Couyoumdjian (2008).

official sanction of their bylaws; the establishment of the National Mortgage Bank (Caja de Crédito Hipotecario), in 1855, was another significant piece of evidence of the operation of a financial institution in the country before a banking law existed. At the same time, Courcelle-Seneuil proposed and examined the different possible modes of organisation that a note-issue banking system might have: 'one or many banks established by the government', 'one or many privileged banks', 'banking freedom under conditions designated by a law' or 'complete freedom under the rule of the common law without the intervention of any other law' (Courcelle-Seneuil 1857: 44). The French professor favoured a free and competitive system, but was also careful to note that all of these systems may have their own advantages and disadvantages.

In the end the 1860 law was of the third type. The government intended to regularise the existing de facto situation and in his 1857 Annual Report, Minister of Finance Alejandro Vial had already commented that (quoted by Millar 1994: 94):

> Several merchant houses have established note-issuing banks in Santiago. The greater or lesser acceptance with which their notes have been received by the public have made the government believe that it is necessary to propose a law.

The intellectual context in Chile was ripe for a more liberal legislation, and freedom in banking was considered analogous to freedom of work and free trade.

In the explanatory statement accompanying the presentation of the law to Congress, Courcelle-Seneuil described the main objectives underlying this project, those being to guarantee the stability of the system and avoid abuses by bankers (quoted in Rodríguez 1890: 356–57):

> The personal interest of those who run the banks must be linked with the public interest, so that the former can never or almost never be separated from the latter ... [thus] it seemed to me that the most sensible thing to do was to rely exclusively on the personal interest of bank directors and to allow them complete freedom of action.

Note the concern to avoid potential irresponsible behaviour by bankers. Courcelle-Seneuil wanted both to avoid the overissue of banknotes and to promote the overall stability of the financial system, concerns that also appear in the modern literature on free banking. In his 1857 article he had remarked that great care should be taken over the loans made by banks such that '[t]he abuse would not be, therefore, in the excess of emission, and can only come from the bad loans made by the banks and from the banks' resulting inability to meet their commitments' (Courcelle-Seneuil 1857: 43). These are the standard problems in the banking sector which may have wider effects on the economy and which were to be dealt with by several provisions in the law.

The main features of the Chilean banking law were: any person capable of carrying out trade operations could establish a note-issuing bank (article 1); banknotes had to be convertible into gold or silver on sight and on demand (articles 26–27); at the same time, banknotes could not exceed 150 per cent of the bank's capital (article 29); banks were required to present monthly balance sheets, which were published in newspapers (article 8, 30); the director of a bank would be liable for the obligations contracted by the bank during his management (article 9); and loans to the bank's directors or administration had to be presented in a special account on the balance sheet (article 10).

The free banking system was quite free in a formal sense, in terms of the freedoms to entry, to issue notes, to lend, and in terms of light legal reserve requirements. The law established no restrictions on the sort of assets a bank could hold, or on the volume and composition of its loans and deposits (Briones and Rockoff 2005).

As noted, such freedoms are consistent with the liberal era in Chilean economic policy. While the real influence of Courcelle-Seneuil on the final legislation was contested during the nineteenth century, with some observers arguing that the project reflected the ideas of the foreign professor while others claimed that Courcelle-Seneuil had simply drafted a project in line with the government's preferences, Rodríguez (1890) concludes that the project was indeed based on the government advisor's ideas.[4] Courcelle-Seneuil had remarked that while preventing abuses was an important consideration, the fact that significant regulations together with other 'natural obstacles' could prevent or strongly hinder the establishment of banks in the country should also be kept in mind when designing a country's legislation

4 On this point it is interesting to note that in the discussions in Congress many legislators considered the proposed regulation as excessive; on these debates, highlighting the aforementioned liberal era in the country, see J. P. Couyoumdjian (2016b).

(in Rodríguez 1890: 364). The status quo, with an underdeveloped or non-existent banking system, was also considered costly. Banks were considered useful to commerce, and there was a preference for banks to operate within a liberal economic environment.

Table 6.1 Overview of the Chilean banking system, 1860–1900

Year	*Number of banks*	*Number of agencies*	*Capital (£)*	*Outstanding loans (£)*	*Deposits (£)*	*Note issue (£)*
1860	3	5	182,149	201,700	411,355	7,807
1865	3	4	458,958	1,145,679	1,869,612	337,494
1870	10	14	1,440,114	4,893,229	4,548,743	819,528
1875	14	30	3,147,810	9,257,088	6,899,953	1,572,515
1880	10	31	1,995,579	7,273,443	8,479,792	1,451,057
1885	15	36	2,047,828	7,810,664	6,291,859	1,142,839
1890	25	63	3,015,546	11,469,085	12,167,863	1,566,906
1895	23	77	3,530,730	10,033,446	14,944,352	1,399,201
1900	28	71	4,559,779	10,510,008	9,867,701	301,680

Source: Ross (2003, tables 1, 2.3 and 2.4 in the appendix).

Free banking in nineteenth-century Chile

The mid nineteenth century has been characterised as a time of progress in Chile (Collier and Sater 1996). Nonetheless, even in this context, and after the promulgation of the banking law, the Chilean banking system was relatively slow to develop. Data on the creation of banks in the country presented by Ross (2003) shows that the number of banking institutions only proliferated since the 1870s (see Table 6.1). This slowness to develop may have been related to a continuation of pre-existing practices involving the old trading houses.[5] Banknotes were not unknown in the commercial circles in Santiago, Valparaíso and other important towns, and a more widespread trust in this medium of exchange developed only gradually.[6] At

5 Although the relatively high denominations of the notes that could be issued by banks (of 20, 50, 100 and 500 pesos), and which was stipulated in the law, may also have represented a barrier to their adoption.

6 As noted by a contemporary analyst in 1861, 'It was only a very short time ago that in the enlightened and cultured Santiago confidence was beginning to be lent to private banks and it is not surprising that in the provinces [no such confidence] was granted at that time' (quoted by Muñoz Delaunoy 2016: 79).

the same time, the dynamism exhibited by the economy in the late 1860s and early 1870s was generating an increasing demand for money. The gradual increase in public confidence in banknotes eventually led many of the existing merchant houses and banks to adapt to the banking law and become note-issuing banks themselves.

The figures presented in Table 6.1 show that the capital and the operations of Chilean banks (which, given the depreciation of the Chilean peso since the later part of the century, are presented in pounds sterling (£)) increased after the mid 1860s. At the same time, we know of an early concentration of these institutions in the capital, Santiago, and in Valparaíso during the decade after the banking law came into force. But, starting in that decade, new banks (and banking offices) were opened in different localities of the country and by 1900 the banking network extended all the way from Tacna in the north to Punta Arenas in the south (Ross 2003). As the Chilean economy was experiencing robust growth, the spread of banking across the country seems quite natural, and also suggests that the industry was profitable.

A concentration of the banking industry also appears in the role that a small number of institutions played in the market: as Ross (2003) shows, the Banco Nacional de Chile, Banco de Valparaíso and Banco de A. Edwards captured a significant part of the market share, and we will return to this point below.

Regarding the stability of the system, the self-regulating mechanisms of the free banking system worked well during this early period. This has been examined by Muñoz Delaunoy (2016), who has remarked on the way in which the different in-built incentives for responsible behaviour by bankers worked in practice. For example, in 1866, a Santiago newspaper wondered why banks did not issue more banknotes (*La República* (Santiago), 13 July 1866, p. 3, quoted by Muñoz Delaunoy 2016: 83–84):

> The answer is obvious: because the market does not need more banknotes, and because excessive issuance would inevitably lead to their depreciation, which would bring about the discredit and sure ruin of the bank that would have so recklessly made use of the rights granted by law.

Such a comment could have been made by an economist, but is a point which bank managers were surely very aware of. On this issue, Muñoz Delaunoy further notes that an examination of the balances of banks shows that at times the circulation of banknotes exhibited drastic swings, which had important effects on their financial situation. The public's demand for more or less gold or silver would depend on whether economic news was good or bad, but also on bankers' decisions regarding the issue of new banknotes. In a context where information regarding credit-market conditions was limited, the decisions that bankers (or bank managers) had to take were not easy and sometimes involved high risks.

These issues also had important practical implications, related to the printing of new banknotes and putting them into circulation. Banknotes were usually printed abroad, and when these did not arrive on time or there was an unexpected increase in their demand, banks were forced to purchase banknotes from other banks. These problems were exacerbated when banks had to send banknotes to agencies far away from their main office. Muñoz Delaunoy (2016: 90) documents cases where such problems actually occurred, to the dismay of those bankers who were now supporting the businesses of their competitors.

The public's confidence in the system and in specific financial institutions was key to safeguarding the stability of the system. This was an especially acute problem in the initial years of the free banking era. Muñoz Delaunoy (2016: 77) has made reference to reports by bank managers pointing to wild fluctuations in public confidence as part of the normal state of the market in those early years. But this situation had changed by the early 1870s, by which time the system enjoyed greater confidence, even though the financial sector had experienced severe strains during this period.

During the 1860s and until 1878 the banking system adjusted to internal and external shocks through mergers and also the closures (bankruptcies) of some institutions while avoiding a major crisis. For example, in the mid 1870s, the Banco del Sur and the Banco de Montenegro y Cia., which also carried out its activities in the southern region of the country, had to close when their metallic reserves had become depleted. This event does not seem to have had a serious effect in the public and did not trigger a wider bank run.

As noted above, public regulation of the banking system was limited to guaranteeing the provision of information to the market and to legal requirements regarding note-issuance and loans to related parties. For the latter the law authorised the president to inspect the bank's accounts at whatever interval was deemed necessary (article 11). We do not know, however, how the law was enforced in this respect. But starting in the late 1860s the government had been involved with the banking system in another way, by making deposits in the financial sector while working exclusively with a single bank: the Banco Nacional de Chile. In the early 1870s, this bank was viewed as (quoted in Briones 2016: 11):

> A kind of General Treasury of the state and a cashier of the external debt of the state … The Banco Nacional, which was already considered by the ignorant public as a state bank, gained credit, saw deposits in large quantities entering its coffers, and expanded its operations in an unwise manner.

Close relations between the financial sector and the government had begun earlier, however, and the consequences of this relationship would explode a few years later. The war between Chile and Spain, in 1865–66, which even included the bombardment of Valparaíso by Spanish ships in March 1866, was an important shock the monetary system (and the economy) had to face during the early years of the free banking era. At the onset of the war (in September 1865) the demand for new fiscal expenditures, together with the blockade of Chilean ports and the ensuing disruption to trade, generated a significant financial contraction, and several banks in Santiago and Valparaíso faced demands to redeem their banknotes for metallic currency for a number of consecutive days. After this bank run the inconvertibility of banknotes was in effect decreed. A law issued during this month granted specific privileges to the Banco Nacional in terms of issuing new banknotes for up to 50 per cent of its capital (also establishing that these notes would be guaranteed with government bonds). These banknotes would not be convertible into metallic currency until early 1866 and were to be admitted in the Public Treasury at face value. This law promoted the circulation of these notes, and led some existing banks which had initially been opposed to the note-issuing nature of this type of institution to change their charters and become note-issuing banks too: such is the case of the Banco de Valparaíso and the Banco de A. Edwards (Millar 1994: 127–28). In December 1865, the note inconvertibility was extended and new privileges were offered to note-issuing banks in exchange for a non-interest-bearing loan to the government equal in amount to one-third of the notes issued. But the funds the government obtained as a result of this agreement turned out to be insufficient, and in July–August 1866 the nation's fiscal needs led to direct loans to the state from private banks; the participating institutions were the Nacional, MacClure, Valparaíso, Ossa and Edwards banks. The banknotes corresponding to this loan would enjoy the privilege of inconvertibility for up to six months after the end of the war or no later than 30 June 1867. However, the monetary situation was normalised earlier than that, and the convertibility of banknotes was restored in September 1866. While Guillermo Subercaseaux, probably the most important Chilean economist during the first half of the twentieth century, and who was also a distinguished monetary theorist, was to write that this was 'a very happy case of banknote inconvertibility' (Subercaseaux 1921: 148), it was also a very happy instance of the preservation of the stability of the financial system.

While this state-led intervention was only one of the ways in which the monetary and financial system adjusted to changes in market conditions or to other shocks, it did generate complex incentives. The privileged emission established in 1866 conferred on the participating banks a clear advantage in terms of the circulation of their banknotes. According to a later report in the Chilean press (*El Telégrafo* (Chillán), 25 February 1878, quoted by Briones 2016: 8):

> There is no doubt that the banknotes privileged by the state had much more acceptance throughout the country than the simple convertible banknotes of the other banks … in many localities of the country only the banknotes of the privileged banks were received unconditionally.

From a monetary perspective, these changes took place in a context where the bimetallic standard was imperfectly aligned to changes in the international prices of gold and silver. Via the operation of Gresham's Law, the gold to silver ratio established in 1843 soon led to a de facto gold standard. In 1860 a change in the monetary law adjusted the bimetallic parities between gold and silver, but the change was insufficient and the metallic content of silver coins was reduced so as to discourage their export (Subercaseaux 1921). At any rate, the disappearance of silver coins was generating problems of small change. Copper coins had been minted since 1834, but never in sufficient quantities. This situation was reversed in the 1870s when, given changes in the international parities, specifically the depreciation of silver, there was a tendency to export gold. At the same time, there was the international economic crisis of the early 1870s. From the end of the war with Spain in 1866 up to 1872 the economic situation in Chile was buoyant; as can be seen in Table 6.1, this prosperity was related to an expansion of the banking sector in the country. Some authors argue that the mining boom during this period also involved some elements of speculation and even lax granting of credit (Subercaseaux 1921: 149). At any rate, the international crisis severely affected the country's exports and its overall economic situation (Sater 1979).

The 1878 crisis

In July 1878, the Chilean peso was made inconvertible in response to a banking crisis that occurred in a period when Chile was experiencing the effects of an international economic downturn, which affected the price of the country's major exports (especially, copper) and had important adverse effects on its external accounts.

The 1878 crisis has been studied extensively in the Chilean historiography and in the modern economic history of Chile, and different explanations have been offered regarding its causes. In the most direct sense the problem was the poor financial state of the most important national banks, in particular the Banco Nacional, whose insolvency could very likely have led to a generalised financial crisis; a couple of bank closures in late 1877 and early 1878 had already pointed to problems in the banking sector, although in these cases a wider crisis was avoided.

A number of authors, including Espinoza (1913), Fetter (1931) and, more recently, Ross (2003), have suggested that this crisis had its roots in the irresponsible behaviour by bankers that occurred in the context of an allegedly extremely liberal legislative environment. The expressions used here have been very forceful. For instance, Espinoza argued that the crisis was a consequence of the 'liberalities' of the 1860 banking law that led to poor banking practices combined with the unhealthy relationship between bankers and politicians. His argument should be considered at length (Espinoza 1913: 191):

> Indeed, from the extreme liberalities of the law that gave these banks the fundamental principles of their administration and of the laws that were later passed in favor of those same banks, to the extremely misguided direction that those same institutions received from their advisers or directors, who seemed unaware of the responsibilities that weigh upon them; from the links between bankers, legislators and the government ... up to the prevailing popular ignorance, combine to form a set of factors, admirably arranged for the establishment of the legal tender of banknotes, which would not take long to be declared.

And yet, while problems with banking practices must surely have existed, the data presented in Table 6.1 do not suggest a generalised disorder in the national banking sector. While these are aggregate annual indicators, the ratio of banknote issues to capital was 50 per cent in 1875, way below the maximum limits established by the law. This same year loans were 2.9 times the existing capital, and the deposits to loans ratio was 75 per cent.

As Briones (2016) shows, loans to related parties show no special pattern before the crisis (with the exception of those of the Banco Nacional, which show a moderate increase in 1878), and the dividends paid to the owners of banks likewise do not exhibit any special peak before the crisis. This said, one can certainly agree that the decision by bankers to distribute dividends to their shareholders in this context was imprudent; the Banco Nacional did so only a couple of weeks before the suspension of specie payments was decreed in July 1878. This event has been considered by Fetter (1931: 30) as further evidence of loose bank practices by Chilean bankers. But the international economic crisis, and the monetary drain it caused also contributed to the difficulties of the financial sector: evidence suggests that the automatic adjustment mechanisms of the monetary system had important effects on interest rates and the banking sector (Millar 1994).

At the same time there may also have been an additional factor at play here, related to the government financing fiscal deficits by loans from private banks that were granted preferential treatment from the government in return. While the government's fiscal deficit was not massive, it had been permanent and the government had issued bonds in the international markets in 1870, 1873 and 1875, until market conditions became tighter (Briones 2016). This tightening coincided with deteriorating international conditions on Chilean trade in a context where the country's fiscal revenues were highly reliant on taxation of the external sector and no tax reform in order to reduce this dependence had been achieved (Sater 1979). In mid 1878 a report in the Chilean press represented the problem in the following way (*The Chilean Times* (Valparaíso), 27 July 1878, quoted by Briones 2016: 18):

> The present difficulties of the banks are in great measure due to the government … Deficit after deficit has been covered by [bank] loans instead of being financed by additional taxation.

Given the difficulties in securing international loans, the government resorted to financing from the national banking sector instead. This policy would go hand-in-hand with the granting of emission privileges to the banks involved, in line with the earlier precedent established in 1866. In June 1878 an agreement was reached with nine banks for a loan for Ch$2,525,000, and the granting of 'privileged emission' amounting to Ch$10,100,000.[7] This arrangement occurred in a context where the banking industry was highly concentrated despite the emergence of new banks during the 1870s: the Banco Nacional was the dominant player with an almost 50 per cent market share in deposits and 44 per cent share in the emission of banknotes, followed by the banks of Valparaíso and Edwards. Together, these banks accounted for more than 80 per cent of deposits, about 75 per cent of the monetary emission and 80 per cent of all the outstanding loans in the economy.[8] In terms of the aforementioned agreement, the Banco Nacional was granted a privileged emission of Ch$4,400,000, and the Banco Edwards one of Ch$2,160,000. The resulting situation was one, as Subercaseaux (1921: 154) explains, in which the banks 'were, therefore, beset on the one hand by a public eager for money and full of distrust, and on the other by a Treasury that resorted to its tellers to cover its deficits; not being able, in return, to recover the funds they had invested in loans given the critical state of private business'.

The crisis exploded in July 1878, when the Banco Nacional experienced an almost total depletion of its metallic reserves, and its management requested assistance from the government. Congress was convened for an extraordinary (and secret) session, and accordingly decreed the temporary inconvertibility of the Chilean peso until August 1879. Originally, the law only applied to the nine signatory banks of the loan. In September 1878, however, the law was modified to include the banks of Valparaíso and Concepción after they also made loans to the Treasury, at which point the suspension of payments was extended to October 1880.

It was the fear of the consequences of a run on the largest banks and the relationship between bankers and the government that led to the peso being made inconvertible, an event that seems in general to have aroused a negative response by the public. This measure was considered a violation of property rights, and the behaviour of the nation's financial institutions was strongly denounced (Sater 1979: 84).[9]

7 In June 1878 the exchange rate for the Chilean peso (Ch$) was 40.25 d. per peso.

8 These are averages for the period 1867–77. In terms of loans, the Banco Nacional had a market share of 40 per cent. The data are from Ross (2003, tables 2.2, 2.3 and 2.4 in the appendix); see also Briones (2016).

9 It is interesting to note that in this context proposals for a national bank were also raised, although nothing came of these proposals (Millar 1994: 145–47).

However, the suspension of convertibility may not have been unexpected (Briones 2016). Financial markets had shown an increase in Chilean sovereign risk since late 1877 (Sicotte et al. 2009), and in the debates in Congress regarding the loans to the government Deputy Ambrosio Montt had argued that (Ambrosio Montt, Cámara de Diputados, 10 June 1878, quoted by Briones 2016: 25):

> Due to the privileged issuance, if the loan [to the government] is unfortunately approved, [this measure] will lead us directly to inconvertibility and to a circulation greater than what the current conditions of the economy can absorb … To those who agree with this proposal, I say that they must not forget that it will lead us directly to a regime of paper money … The Treasury, consciously or unconsciously, will be guaranteeing each banknote of poor quality and each banker who experiences problems.

At any rate, the onset of the military campaigns of the recently declared War of the Pacific led to new demands for public funds. In April 1879 a new issuance of 6 million pesos was authorised.[10] The legislation enacted allowed this new monetary emission to be administered by the banking system or directly by the state itself. Even though there was a general opinion against the issuance of fiscal banknotes, no agreement was reached with the private banks and the second alternative was finally adopted. In the following years new laws authorised successive emissions, which, in total, amounted to 40 million pesos, and by the time the war ended and peace was signed with Peru in the Treaty of Ancón in October 1883 (peace with Bolivia was only signed in April 1884), both fiscal and private banknotes were now in wide circulation in the country.

Chile now controlled the wealthy nitrate regions of Tarapacá and Antofagasta and the question of returning to a metallic standard, which involved the withdrawal of fiscal banknotes and the restoration of the convertibility of the private notes, was always in the background. Several attempts at monetary and financial reform were advanced during the rest of the nineteenth century. However, by this time the free banking system was not really that free (J. R. Couyoumdjian 2016c). A long time would elapse between 1898, when the free banking era officially ended after a short-lived (1895–98) return to the gold standard, and the establishment of a new monetary and financial

10 By this time, however, with the declaration of war the Chilean peso had depreciated to 34.69 d. per peso; this is a depreciation of 14 per cent since June 1878 (Millar 1994: 186).

institutional framework as a result of the visit of the Kemmerer Mission in 1925, which led to the establishment of a central bank that same year (Millar 1994).

In closing

While the Chilean historiography has been less than kind to the free banking era, this period coincides with a process of significant economic growth in the country. This period saw no inflationary problems, which suggests that there was no excessive issuance of banknotes (Jeftanovic and Lüders 2016); during the free banking era private banks issued amounts of currency that matched the needs of the market. The long history of inflation in Chile starts with the fall of the metallic standard in 1878 (Fetter 1931; Hirschman 1963). On this, as the nineteenth century was coming to an end, a former Chilean banker and politician wrote that 'It is fair ... to claim for Chile a place of honor alongside Scotland and the states of New England, when the names of those countries in which the system of freedom in matters of issue-banks has been successfully subjected to the conclusive test of experience are brought to mind' (Ossa 1887: 16). While this may seem like an exaggeration at the very least, the Chilean experience deserves more recognition as a free banking success story than it has traditionally received.

This said, the Achilles heel of the Chilean free banking system was state interference, starting in 1866, by which the state would trade note emission privileges for privileged loans from the banks. This policy, though insidious at first, undermined the integrity of the banking system and, in the context of a severe external shock, eventually destroyed the convertibility of the currency. As Briones (2016) has suggested, to a large extent the demise of Chilean free banking was due to the differences between the *de jure* and de facto workings of the system, specifically regarding the freedom of the banking system from state intervention.

7 FREE BANKING IN COLOMBIA

Adolfo Meisel

This chapter summarises the development of the Colombian banking system from 1871, when the first successful commercial bank was established, to the foundation of the central bank, Banco de la República, in 1923. These years are rich in events for students of monetary and banking history: there was a period of free banking (1871–86); a near hyperinflation (1899–1902); a monopoly of note issue (1887–1909); and a period in which there was no institution which could issue banknotes (1910–22).[1] Each period is now considered in turn.

The free banking era, 1871–86

The first successful commercial bank in Colombia was the Banco de Bogotá, established in 1871. The credit system had been controlled until the 1860s by the Roman Catholic Church through the *censos*, which were mortage loans extended on the guarantee of rural or urban property, generally at an annual interest rate of 5 per cent (Colmenares 1974). During the reforms of the 1860s, the Liberal Party put an end to this pre-capitalist credit system, and in the process created the conditions for the establishment of commercial banks.

The economic prosperity of the 1870s produced by the booming export sector helped the newly established Banco de Bogotá to prosper. The notes issued by the bank increased rapidly from 132,165 pesos in June of 1871 to 606,898 pesos by June 1874.[2] In the next few years banks were established

1 The definition of free banking used throughout this chapter is the standard one: it refers to a banking system in which there are no barriers to entry, all banks have the right to issue notes, there is competition in the banking business, and there is no central bank. By the term central bank, we understand an institution which is the lender of last resort, holds the reserves of the banking system, and has a monopoly over the supply of currency.

2 Memoria del Tesoro, Bogotá, Colombia (1875: xx).

all across the country. Although the period under consideration (1871–1922) was characterised by the creation of banks, the number established in the era of free banking (1871–86) was larger than in subsequent subperiods (see Table 7.1).

Banks were first allowed to operate under a law of 1865 that had originally been passed to permit a foreign bank in Bogotá (Meisel 1990a: 138). This bank quickly failed, apparently because of its directors' lack of familiarity with local conditions. However, the door was open to other banks.[3] This law allowed banks to issue notes that were to be accepted by the government as payment for taxes and other contributions (Meisel 1990a: 138).

Table 7.1 The establishment of commercial banks in Colombia 1871–1922

Region	*1871–86*	*1886–1909*	*1910–22*	*Total*
Bogotá	9	7	5	21
Antioquia	12	16	5	33
Atlantic coast	9	3	5	17
Other regions	9	6	8	23
Total	39	32	23	94

Source: Meisel (1990a).

From 1863 to 1886, the Colombian state was organised under a rather extreme federalist constitution, the Constitution of Rionegro, which adhered to the principles of Manchesterian liberalism. This constitution made each regional state – and Colombia had nine – responsible for the regulation of economic activity, including banking. A good example of the spirit of laissez-faire that predominated in Colombian legislation of the time is provided by the banking laws of the State of Bolívar. This legislation gave ample space to private initiative and permitted only a minimum of government intervention. As the basic banking law of the State of Bolívar declared in its first article, 'The establishment of banks of issue, deposit, and discount and mortage banks is free in the state and their activity is only subject to those duties that the laws impose on commercial companies and merchants'.[4] Equally, there were no barriers to the entry

3 Memoria del Tesoro, Bogotá, Colombia (1874: 45).

4 Recopilación de las Leyes del Estado Soberano de Bolívar, 1857–1875, Cartagena: Tipografia de Antonio Araujo (1976: 151).

into the banking business. No charters were necessary and there were no minimum capital requirements.

When the Banco de Bogotá was established in 1871, the Secretary of the Treasury granted it the same privileges that had been granted in 1865 to the foreign bank that had earlier operated for several months in Bogotá (Villamarín 1972: 271). The main privilege was the right to issue notes admissible as currency in the payment of taxes and in general in all the transactions of the National government, with the obligation on the part of the government, of receiving them at par (Meisel 1990a: 138). The government also granted other privileges to the Banco de Bogotá, the main one being the deposit of all of its revenues.[5]

In many respects, the history of the Banco de Antioquia is similar to that of the Banco de Bogotá. The former was a privately owned bank established in 1872 by a group of merchants from Medellín, and it obtained important privileges through Law 194 of 1871, issued by the State of Antioquia (Botero 1989: 31). The regional government guaranteed the bank's notes and accepted them in all of its own transactions (as in the payment of taxes). The bank's notes circulated widely in the region at par with gold pesos (Botero 1989: 53), and it made clearing agreements with other banks for the mutual acceptance of their notes.

Perhaps the most difficult crisis faced by Colombian banks during the experience of free banking occurred in 1876 as a result of the civil war of 1875. The largest bank of the country, the Banco de Bogotá, suspended the convertibility of its notes from November 1876 until May 1877, because of problems involved during the civil war in transferring funds from one town to another. In Medellín, for instance, the civil war led to a local bank panic. A Swedish traveller in Antioquia at the time, Fr Von Schenck, described these events (Schenck 1953: 46):

> A very natural panic occurred as result of the war and all the notes returned to Medellín, where the banks were faced with the obligation of converting more than a million pesos, at a time when metallic currency had disappeared as by magic, as it [sic] always occurs in Colombia in times of revolution. In this emergency all the merchants of Medellín agreed to accept the notes as credit to the banks. This agreement was observed rigorously and the convertibility of all notes was maintained.

5 Memoria del Tesoro, Bogotá, Colombia (1875: xx).

One of the main characterictics of the Colombian banking system up until 1923 was the coexistence of many regional banks and the virtual absence of branch banking. Although branch banking was allowed, it did not develop, possibly due to the enormous difficulties of communication as a result of Colombia's rugged topography and rudimentary transport system.[6]

While the regional banks were quite small, two large banks – the Banco de Bogotá and the Banco de Colombia – played an important role in Colombian banking from the very beginning. (In 1912 they were also joined by the Banco Alemán Antioqueño.) These banks were managed in a very conservative and prudent manner, maintaining a diversified portfolio and avoiding speculative activities. They were uncharacteristic in not being family banks nor directly involved or associated with firms in the export business, and their ownership was quite dispersed.[7]

There is no information available for this period that permits a comparison of the relative size of the different banks in existence. However, a government report of 1888 calculated the metallic currency available in each bank. This variable can be used as a proxy for their relative size. The two main banks, Bogotá and Colombia, had between them 53.1 per cent of the metallic currency in the banking system.[8] Two other banks had another 18.8 per cent, which meant that just four banks had 71.9 per cent of the currency. The remaining 28.1 per cent was shared among the remaining 23 banks.

In 1880, President Rafael Nuñez established a government bank of issue, the Banco Nacional, to be its fiscal agent and granted it, by law, the right to a monopoly of the note issue.[9] However, the same law also permitted the Banco Nacional to authorise note issues by private commercial banks which accepted its own notes. The newly created government bank initially issued relatively moderate amounts of notes – only 2,831,000 pesos in the period 1881–85 (see Table 7.2) – but the war of 1885 led to a large fiscal deficit which the government financed by borrowing from the bank. The note issue consequently grew by almost 90 per cent in 1886, and the government responded

6 For a discussion of the development of Colombia's transport system in this period, see McGreevey (1982: 262).

7 The export business was particularly risky due to the sharp fluctuations of international prices that were usual in the principal export products, for example, coffee.

8 Memoria del Tesoro, Bogotá, Colombia (1888: 55). 9 Law 39, 1880. See Diez (1989: 42).

9 This was the case of the first Banco de Bolívar in Cartagena (Meisel 1990c).

to the subsequent inflation by suspending the convertibility of its notes later that year. Simultaneously, it suspended the right of commercial banks to issue notes, and some banks responded by liquidating themselves and going out of business.[10]

Table 7.2 Annual issue of Banco Nacional notes (1885–99) in pesos

Year	*Annual increase in value*	*Accumulated issue*	*Increase (%)*
1885	2,831,000	2,831,000	—
1886	2,516,725	5,347,725	88.9
1887	2,956,722	8,304,447	55.3
1888	3,695,553	12,000,000	45.5
1889	2,970,903	14,970,903	24.8
1890	831,098	15,802,001	5.6
1891	4,243,298	20,045,299	26.9
1892	1,226,732	21,272,031	6.1
1893	2,500,000	23,772,031	11.8
1894	2,363,575	26,135,606	9.9
1895	5,000,000	30,862,350	18.1
1896	—	30,862,350	0
1897	—	30,862,350	0
1898	7,440,000	38,302,000	24.1
1899	14,559,000	52,861,000	38.0

Source: Meisel and López (1990: 76).

It is very important to stress that the government's monopoly of note issue arose in 1886 from its desire to obtain resources through seigniorage. The pressing fiscal demands of the government led it to suspend the convertibility of its notes, and consequently to abolish, supposedly temporarily, the right of other banks to issue notes. The government's note monopoly did not arise from any dissatisfaction with the way free banking had operated, and there had been no panics or abuses that had led people to question the principle of free banking.

10 Romero (1987: 147–48). The scandal that was generated in 1883 over the discovery in 1889 that the Banco Nacional had issued $2,206,319 pesos that had not been legally authorised created an adverse climate of opinion towards this bank. The sum in question was used by the government to buy, through the Banco de Bogotá, outstanding public debt at a discount. See Torres (1980: 207–10).

Towards central banking, 1887–1922

The Banco Nacional was liquidated in 1896 after the discovery of illegal issues of its notes,[11] although the Treasury continued printing the Banco's notes until 1904. From the late 1880s until 1898, the note circulation of the Banco Nacional was (relatively) moderate (see Table 7.2), but a civil war began in October 1899 between the governing Conservative Party and the opposition Liberal Party, and the resulting fiscal pressure led to increases in the monetary base of 118, 108 and 117 per cent in 1900, 1901 and 1902, respectively. Prices consequently rose, and the peso devalued against the pound sterling by 142.5, 158 and 165.8 per cent in each of these years.[12] The increase in the monetary base slowed down again when the war ended and the fiscal pressure relaxed, and prices began to stabilise again.[13]

In 1905, the government of Rafael Reyes instituted a series of reforms in the monetary and banking sector. The objective of these reforms was to return to the gold standard which had been abandoned in 1886. Among the reforms, one of the most important was the devaluation in the legal value of the peso in terms of gold: one hundred paper pesos were to be legally valued for one gold peso, a rate of exchange that corresponded to their market value (Torres 1980: 248). Another measure in the government's reform package gave a group of Colombian capitalists a concession for the establishment of a private bank, the Banco Central, which would have a monopoly over the right to issue notes and act as fiscal agent of the government, but the Banco's privileges were taken away in 1909 and it became a regular commercial bank.[14]

Also in 1909, the constitution was amended to prohibit the issue of notes altogether, in an effort to eliminate any future resort to inflationary finance. From that date until 1923 no institution in Colombia was allowed to issue any notes at all, and increases in monetary base could only come about through the minting of gold and silver coins by the Treasury or through

11 Crédito, Moneda y Cambio Exterior, Bogotá (1909: 66–67).

12 Memoria del Tesoro, Bogotá, Colombia (1904: 66–69).

13 These privileges ceased because the Banco Central was accused of increasing the amount of inconvertible paper money in circulation (to finance the fiscal deficit) and of not having helped in the re-establishment of the gold standard. See Avella (1987: 43).

14 However, from 1918 the constitutional prohibition to issue inconvertible paper currency was partly side-stepped through the issue of Treasury bonds that were accepted as currency.

the introduction of foreign currency (which occurred in several years in the 1910s).[15]

In the early 1910s there was an ongoing debate in the Colombian Congress over the relative merits of free banking and central banking. There was an increasing perception of the need for an orderly and elastic provision of notes to put an end to the heterogeneity prevailing in the monetary base.[16] Between 1904 and 1919 a total of fourteen projects to establish free banking were presented to the Congress (Ibañez 1990: 165). The controversy was particularly intense after 1910 because of the ban on issuing notes.

Since the earlier experience with free banking (1871–86) had been reasonably successful but the later monopoly issue (1887–1909) had produced considerable instability, it was quite natural that most Colombian policymakers seemed to favour free banking. The tendency towards free banking is reflected in the fact that eleven out of eighteen banking reform bills presented to Congress in the period from 1911 to 1916 favoured some form of free banking (Ibañez 1990: 176–77). However, free banking sentiment began to dissipate towards the end of the decade. As a result of international influences Colombian policymakers started to favour the establishment of a single bank of issue. The examples of France, England and Germany were cited as cases where free banking had been abandoned, but perhaps the biggest impact was caused by the establishment of the Federal Reserve System in the US in 1914 (Meisel 1988: 100).

The 'charisma of success' made it very difficult to contradict a project such as the one that Esteban Jaramillo (1918) presented to Congress in 1918 for the organisation of a central bank inspired by the Federal Reserve System, and a consensus among Colombian policymakers was reached in favour of a monopoly of issue by 1921. Three bills presented in that year for the creation of a central bank proposed the monopoly of issue (Ibañez 1990), and an Act was passed the following year – Law 30 of 1922 – to establish a central bank.

On 10 March 1923, a group of US financial advisers arrived in Bogotá, at the invitation of the Colombian government. The mission's head was Edwin W. Kemmerer, a Princeton professor of economics. He was one of the foremost members of an 'informal colonial service' that reformed the monetary and banking systems of numerous Latin American and Asian countries in

15 Informe Anual del Gerente del Banco de la República a la Junta Directiva, Banco de la República (1924: 10).

16 The two bills not passed in Congress were one regulating income taxes and another on travel taxes (Meisel 1990b: 221).

the initial decades of the century. Kemmerer's task was made much easier by the fact that the Act authorising the central bank had already been passed when he arrived. He then proposed a number of additional measures to reform the Colombian banking and fiscal systems, and eight of these – the most important ones – were readily passed by Congress with almost no changes.[17] Kemmerer's reforms completed the new Colombian system of central banking.

In 1923, Colombia became the second country in Latin America to have a central bank. Why did Colombia acquire a central bank before countries such as Argentina and Canada that were much more developed, and despite the fact that the Colombian banking system had been quite stable since it had been founded, and had never experienced a national bank panic?

The Colombian central bank was not created as part of a gradual evolutionary process in the banking system.[18] Rather, it conforms better to the argument formulated by Vera Smith (1990: 148) that a central bank is often not the result of the natural evolution of the banking system, but the outcome of historical and political circumstances. The main motivation that the Colombian government had for setting up a central bank and inviting the mission of US financial advisers was ensure access to American loans.[19] As Kemmerer noted in his Presidential Address to the American Economic Association, one of the main reasons that a country had to arrange a mission of foreign financial advisers was to cause a good impression on US investors and banks (Kemmerer 1927: 4).

At the beginning of the century Colombia had some of the lowest levels of foreign investment in Latin America. In the early 1920s Colombian officials tried to interest US bankers in the country but they repeatedly failed. 'When their representatives searched for the necessary funds from investment bankers of New York, most were not interested … When they asked what they had to do to be eligible they were informed of the work of Doctor Kemmerer' (Kemmerer 1987: 59). Paul Drake's research on the financial missions

17 Goodhart (1988) argues that in several European countries central banks evolved from commercial banks that were granted special privileges, including being the fiscal agents of the government.

18 The historian Carlos Marichal argues that, in the 1920s, 'To facilitate the acquisition of foreign loans, numerous Latin American countries invited U.S. financial experts to reorganise their public finances in order to obtain the approval of New York banks' (Marichal 1988: 215–16).

19 In 1913, Colombia was the country with the least amount of US investment. Of a total of almost US$1,242 million invested in Latin America, Colombia received only US$2 million from the US. Investment of United States Capital in Latin America. Boston: World Peace Foundation Pamphlets (1928: 1031–34).

of the so-called Money Doctor to the Andean countries (Colombia, Peru, Bolivia, Chile, Ecuador) in the 1920s and 1930s also shows that 'the main objective for many Andean leaders [for inviting E. W. Kemmerer], was to inspire confidence on the part of foreign investors' (Drake 1984: 25).

The 'medicine' offered by Kemmerer for the Colombian banking system included a gold standard and a central bank. He proposed exactly the same institution he had defended for his own country only a few years before, although the Colombian conditions were quite different.

Aside from the interest on the part of Colombian authorities in obtaining loans from US bankers, the Kemmerer reforms were readily accepted because there was already a growing consensus among Colombian policymakers in favour of the creation of a bank of issue along the lines of the Federal Reserve System. Why the Federal Reserve System? Because it was the regime established in the country to imitate. It appears, therefore, that it was the 'charisma of success' that explains the shift away from free banking and in favour of monopoly issue.

Conclusions

The history of Colombia's banking system from 1871 to 1923 shows that the establishment of a central bank in the later year was not the result of some gradual evolutionary process. Instead, it was the outcome of a deliberate policy on the part of the Colombian government to set up a central bank in order to obtain funds from US banks.

Free banking in Colombia (1871–86) was not characterised by overissues of banknotes nor by bank panics. It was abolished because of the fiscal difficulties of the government resulting from the civil war of 1885. Although free banking was never re-established, many banks survived the unstable years of monopoly issue on the part of the government (1887–1904), and the banking system was actually quite stable throughout the period of transition from free banking to central banking (1887–1922). During those years the country never experienced a national bank panic. Thus, political considerations and the international demonstration effect of the most successful countries were behind the creation of a lender of last resort with monopoly issue in 1923: the Banco de la República.

8 FREE BANKING IN FOOCHOW

George A. Selgin

> Prior to 1900, China never had anything resembling government regulation of banks, and since that time its banking ordinances have mostly provided regulation without inspection – merest paper. Until recently there were no banking laws at all. A man might start even a savings bank or a bank of issue with no more ado than is necessary to start a grocery store.
>
> Hall (1922: 3)

Introduction

This chapter examines the decentralised banking and currency system of Foochow (Pin-yin romanisation *Fuzhou*), capital and largest city of the southeastern province of Fukien (*Fujian*), in mainland China. From the beginning of the nineteenth century until the second quarter of the twentieth, Foochow's banking and currency system was entirely private and free from all legal restrictions: whereas much of the West in the nineteenth century adopted a laissez-faire economic policy for everything except currency and banking, China chose to let currency and banking alone. Although free banking in China was based on dramatically different monetary and legal arrangements from those in the west, its consequences were similar in many ways to those of free banking in Scotland and Sweden: banknotes circulated at par and were widely preferred to coin; banking failures were restricted to very small banks; noteholder losses were minimal; free banks were an important and relatively low-cost source of loanable funds; there were no serious outbreaks of inflation or deflation; and counterfeiting was rare. Thus Foochow offers a further example of a decentralised and unregulated banking system that worked well.

General monetary arrangements

China's monetary system in the nineteenth century included three different units of account, each with its own exchange-media representatives. The *tael* (of which there were many varieties – Foochow's contained 532.5 grains of silver (Anti-Cobweb Club 1925: 70)) was used in interprovincial trade and for some local, wholesale trade. The dollar, originally based on the full-weight Mexican dollar coin, was employed in foreign trade. Finally, the copper *ch'ien* or 'cash' was used in local, retail exchange. It was represented by round copper coins (*wen*) with square holes in their centre. The coins were used in 'strings' (*ch'uan*) of 100 units or more. A string of 100 coins worth 10 *ch'ien* each was once standard. However, the presence of many worn and debased coins (some of which were minted centuries before) made inclusion of more than 100 10-cash coins typical for a string valued at 1,000 'standard' cash.[1]

Though exchange-media representing 1,000 standard copper cash were sometimes called *tael* units, their value fluctuated freely against that of silver monies: despite appearances to the contrary China did not have a bimetallic, copper–silver standard, but, rather, parallel standards.[2] Copper–silver exchange rates varied continually both over time and across localities due to changing market conditions.

The bulkiness and weight of copper coin – a mule cart was needed to move sums exceeding 10,000 cash (Wilkinson 1980: fn 17) – together with its uneven and fluctuating quality, created great opportunities for issuers of paper money. Indeed, as Tullock (1957) observes, the Chinese, having invented paper, ink and printing, were also the earliest users of paper money. Imperial governments resorted frequently to paper money finance, and paper issued by them typically depreciated until it became worthless. This practice finally came to an end during the Ming dynasty, midway through the fifteenth century. Except for two brief, unsuccessful issues during the 1650s and 1850s, the Ch'ing dynasty (1644–1911) also refrained entirely from issuing paper money. The Manchus did not, however, interfere with private banks issuing paper notes on their own. Thus China by 1644 had entered into an era of official laissez-faire in money and banking. In Foochow and elsewhere this policy gave rise to a well-developed and fascinating private currency industry.

1 Although they allowed private issues of paper currency, the Manchus also maintained an official, and highly unsatisfactory, monopoly of coinage. Unauthorised mints did, however, operate at various times. See Ch'en (1980: 12–15, 33–38, 120–23).

2 On this see Bloch (1935).

Kinds of bank

During the free banking era two groups of banks operated in Foochow: old-style or 'native' banks and modern or 'foreign' and 'foreign-style' banks. Modern banks, which first appeared after the opening of the Treaty Ports in 1842, included all foreign-owned commercial banks and their Chinese imitators. Native banks (which were of much older origin) included 'Shansi' banks (named after the province where banks of this type first opened) and 'local' banks. Shansi banks were large branch banks mainly involved in interprovincial trade, including the handling of payments to and from the central government. Local banks were usually single-office firms involved in local lending and exchange only. Some, however, belonged to a distinct class – they were the 'big' local banks or *tso piao tien*. These issued the bulk of Foochow's monetary assets, including demand notes current throughout the city. They were also members of the local bankers' guild and clearing association. The remaining, 'small' local banks issued notes current only within their immediate vicinity and trading elsewhere at varying discounts. Small banks did little lending, concentrating on the exchange of different kinds of money. Consequently they were also known as 'money shops,' 'cash shops' or 'exchange shops' (*chien yang tien*). Some small banks reissued notes of larger banks, and many operated as sidelines of other businesses.

Notes issued by the *tso piao tien* included 'cash' notes and, beginning in the second half of the nineteenth century, 'Dai-Fook' dollar notes (*tai fu piao*). Cash notes were issued in denominations ranging from 400 to several thousand cash, 400 standard cash being the rough equivalent of eighteen pence or three-fortieths of an English pound around 1850 (Fortune 1847: 373). Dai-Fook notes were issued in denominations of one to fifty 'dollars', where \$1 Dai-Fook was equal to 1,000 'standard' copper cash.[3] Foreign banks established after 1845 issued notes representing 'big' (Mexican) silver dollars. In 1928 the Dai-Fook dollar unit was abolished, and native banks were required to denominate their notes in Chinese dollars or yuan. These were officially equivalent to 'big' silver dollars, though actual government coins were of somewhat lower metallic content.

Native banknotes, and copper-backed notes especially, were widely preferred to coin in local transactions; as early as 1853 the Governor-general of

3 The Dai-Fook dollar had the advantage of avoiding any confusion over differences between 'market' and 'standard' cash, because a Dai-Fook dollar always represented 1,000 standard or full-weight cash, rather than a nominal quantity of actual, debased or worn coin.

Fukien could report that 80–90 per cent of all transactions in Foochow were being settled with them (Wang 1977: 13). Sir Harry Parkes, interpreter for the British consul at Foochow from March 1845 to August 1846, observed that paper notes were 'adopted by everybody, high or low, to the almost entire rejection of their bulky coins, which they seldom continue to carry on their persons' (Parkes 1852: 180). This contributed savings both in transactions costs and in opportunity costs associated with the production of commodity money. Because of the overwhelming popularity of the notes, prices were expressed in amounts of standard cash, with actual, worn coin circulating at a discount. This appears to confirm White's (1984a) view that competitive forces encourage the linking-up of the unit of account with the preferred means of payment.

Growth of the industry

Local banks were already present in Foochow in the eighteenth century. Most began as money exchange shops, which first undertook the issue of non-circulating promissory notes ('native orders') to well-known merchants. Promissory notes of more reputable firms were often assigned and circulated. This led to banks issuing bearer notes, which were often cashed on demand. Some local banks may also have been set up by Shansi bankers to supplement their parent firms by specialising in local transactions (Chang 1938a: 36).

Local banking grew rapidly at the beginning of the nineteenth century, and by 1815 local banknotes were widely used in larger local transactions. The opening of Foochow to foreign trade following the end of the Opium War gave the industry a further boost, both by increasing the demand for convenient and reliable currency and by introducing 'modern' foreign banks. The modern banks issued silver-dollar-denominated demand notes, encouraging more local banks to make their copper-based notes redeemable on demand. Foreign banks also accepted local banknotes in payment, thereby directly enhancing their market.

By the mid nineteenth century there were 30 local banks in Foochow with over $500,000 (silver) in capital each, together with hundreds of smaller cash shops (Parkes 1852: 182). By 1922 the number of *tso piao tien* had risen to 46; their average size had become much smaller, however, reflecting the general decline of Foochow as a commercial centre. This suggests that note issue was neither a natural monopoly nor subject to significant external economies of scale, though this result may also have hinged on the fact that banks were also unlimited liability firms (see Rockoff 1986: 627). By this time native banks issued Dai-Fook notes exclusively, cash notes having passed out of use by the end of the nineteenth century.

Foochow's most serious banking crisis occurred in 1922. In that year Cantonese (Nationalist) troops occupied Fukien, causing many local banks temporarily to close their doors and suspend payments as a precaution against having forced loans exacted from them by the occupying forces (Tamagna 1942: 21). Though most of the banks recovered, four of them, including the large Bank of Fukien (banker to the provincial government and therefore a special target of invading warlords) failed, leaving $1,200,000 (Dai-Fook) of unredeemed notes (Anonymous 1925b: 145).[4] Responsibility for these notes was taken by the remaining *tso piao* through a new agency formed by them expressly for the purpose called the Association for the Maintenance of the Money Market, which replaced notes issued by the Bank of Fukien with its own, redeemable, notes. Also in response to the crisis the bankers' guild of Foochow, called the Native Bankers' Association, froze its membership. This fixed the number of *tso piao* at 45, permitting new entry into the guild only in the event of the failure or voluntary closure of an existing member bank. Overhead costs for existing *tso piao* were also increased: these now included a fee of $600, payable to the Chamber of Commerce, and a $3,000 contribution to the common pool established by the Association for Maintenance of the Money Market to support its notes issued in exchange for the unredeemed notes of the Bank of Fukien.

In 1927 45 banks, plus the Association for the Maintenance of the Money Market, still had 10,000,000 Dai-Fook dollars outstanding. That winter nearly half of the *tso piao* either suspended or declared *hou chi* (a promise to redeem their notes without undertaking any further issues) in response to a threat of occupation by the Southern Revolutionary Army (Anonymous 1927b: 180; 1927c: 19). Then, in 1928 (after most of the banks had recovered from the winter crisis) the Nationalist government abolished the popular copper-based Dai-Fook unit, requiring all notes to be denominated in yuan (Anonymous 1928a: 135; Kann 1936: 42). This reform – which was aimed at combating the depreciation of the yuan – was strongly opposed by the banks, to the point of provoking them to go on strike. Its successful implementation would have eliminated the principal remaining advantage of

4 All but $200,000 of these unredeemed notes belonged to the Bank of Fukien.

native banknotes in local exchange, where many prices were still expressed in terms of copper units (cash or Dai-Fook dollars). Although the banks were forcefully compelled to resume business (Anonymous 1928b: 45–53) it appears that they were able to escape the law's potentially adverse consequences by adhering to it in a token manner only: although the Dai-Fook dollars were withdrawn and new notes were issued in denominations of between 1 and 200 yuan this Foochow yuan ('*hua piao*') actually differed from the official yuan by being in effect a continuation of the copper-based Dai-Fook dollar (Wong 1936: 399). The reprieve was short-lived, however, as a new set of regulations enacted by the provincial government of Fukien in 1933 abolished the *hua piao* unit and required native banks to redeem their notes at par in official, silver yuan (Wong 1936: 400–1).

Sources differ as regards the fate of the large note-issuing banks after the 1928 and subsequent reforms. According to Kann (1936), only 20 of them remained in business in 1931; two other sources (Anonymous 1932: 441; Tamagna 1942: 68–69), however, claim all 45 banks to have continued in operation at least until 1932, with $4 million (*hua piao*) (or roughly $10 per capita) in outstanding notes. After 1932, however, all sources agree that note issue was given up at a rapid rate. By 1934, according to Tamagna (1942: 68–69), only 27 note-issuing banks remained in business; and according to Young (1935: 66) and Wong (1936: 402) all but five of these had discontinued their issues by 1935, when the government passed legislation intended to give the Central Bank of China a monopoly in note issue.

Organisation and operation of local banks

Local banks were unlimited-liability firms, usually of two to ten partners, though some were individual proprietorships (Anonymous 1932: 441; Chang 1938b: 27). Before 1933 they could be set up by anyone with the necessary capital without a charter or any kind of permission from the government. To become a *tso piao,* however, a bank had to gain admission to the clearing house and bankers' guild. This required that the new bank throw an elaborate feast for the directors, staff and brokers of its established rivals, to establish goodwill. The new bank also had to pay a membership fee of $300 to the guild (Anonymous 1927a: 139). Upon joining both the bankers' guild and the clearing house a bank was said to have 'entered the garden' (Chang 1938b: 310) – an achievement which appears to have added substantially to its brand-name capital, allowing its notes to pass current throughout the city.

Table 8.1 Note-issuing native banks in Foochow, 1932

Bank	*Location*	*Date of establishment*	*Outstanding notes (hua piao)*	*Capital (hua piao)*
Gee Chun	Chung Tin Street	1928	100,000	?
Tin Cut	Ha Po Street	1922	150,000	?
Sun Cheung	Chung Tin Street	1931	150,000	?
Sing Yu	Tai Kiu Tow	1877	60,000	?
Sung Yee	Han Yuan Lui	1926	120,000	?
Foo Yu	Tai Lin Street	1928	150,000	?
Hsin Chun	Kun Yin Chang	1925	100,000*	100,000*
			70,000	
Wan Yuan				
Yip Kee	Nam Tai Street	1931	100,000	?
Heng I	Nam Tai Street	1889	140,000*	100,000*
			60,000	
Tien Chuen	Nam Tai Street	1877	70,000*	100,000*
			100,000	
Lung Shen	?	?	100,000*	100,000*
Chuen Yu	Shan Han Street	1917	250,000*	200,000*
			150,000	
Hou Yu	Tai Lin Street	1892	180,000*	100,000*
			150,000	
Chi Fung	Koo Lau Chien	1931	100,000	?
Kow Ho	Nam Tai Street	1913	100,000	?
Hsiang Kang	Ha Han Street	1918	156,000*	100,000*
			150,000	
Shen Ho	Tai Lin Street	1907	150,000*	200,000*
			200,000	
Him Yu Hing Kee	Chung Tin Street	1929	155,000	?
Fu Yu	Chung Tin Street	1928	140,000	?

Sources: * Anonymous (1932: 441); otherwise Wong (1936: 399).

Local banks' revenues came from speculating on exchange-rate movements (especially silver–cash exchange rates), from issuing demand notes (which sold at a premium of 0.5 per cent) in exchange for copper cash, from cashing notes of other banks for a fee, and from making loans. Loans included call loans (*fu-chiuh*), usually settled at the end of the year; fixed-term loans (*chang-chiuh*) of three, six or twelve months; call ('chop') loans to other banks; and commercial loans involving the issue of promissory notes or 'native orders' (*chuang-piao*) (Chang 1938b: 313; McEldery 1976: 39). Native orders could be either time notes (*yuan-ch'i*), typically maturing in ten days, or demand notes (*chi-ch'i*). In granting loans local banks emphasised the creditworthiness of borrowers rather than documentary formalities, which was precisely the opposite of the practice of foreign and foreign-style Chinese banks (Anonymous 1932: 443; Chang 1938a: 29; 1938b: 310). In later years extensive use was also made of overdrafts. Borrowers' backgrounds were carefully investigated by street-runners – a practice that underlined the banks' role as information-gathering intermediaries. Often a borrower had to be recommended by a reputable third party, who also served as a guarantor (Chang 1938b: 310). Family ties were very important.[5]

Loans based on personal credit were not completely unsecured. Borrowers sometimes had to keep unborrowed accounts at the lending bank, like contemporary 'compensating balances'. Banks could also confiscate the goods of a defaulting borrower. The security here was the borrower's general property rather than specific collateral (McEldery 1976: 38). Loan rates ranged over time from 12 per cent to 22 per cent per year (Anonymous 1924a: 4; 1927a: 136; 1932: 443; King 1965: 105), and were therefore comparable to rates charged by modern banks.

Of the two kinds of native orders only demand notes issued by *tso piao* circulated widely, the rest being sometimes limited to their *street* of issue. This suggests that the public did discriminate among various note brands, as hypothesised in Selgin (1988a: 42–47). Demand notes appear, moreover, to have been the only kind of promissory notes commonly in use in Foochow, and the only kind issued by *tso piao*[6]: the local banks had discovered that refusing to cash their notes on demand (even when the notes were immature time-notes) could seriously erode public confidence in them (Wagel 1915: 136). Eventually, this led to the abandonment of formal time-clauses. Local banks may also in some cases have been encouraged by the example set by foreign banks (Wagel 1915: 167–68). Local banknotes before 1928 were usually payable in copper cash, or in silver at the request of the noteholder. In emergencies, though, banks could exercise discretion in redeeming notes in gold or silver (at the current rate of exchange) or even, in the case of smaller

5 On this see McEldery (1976: 45–53).

6 Doolittle (1865: 141–42), however, states that in Foochow even before 1865 all banknotes were payable on demand. This would seem to include notes issued by smaller banks.

banks, in current notes of the *tso piao tien* (Parkes 1852: 184; Doolittle 1865: 141). This implies a form of contingent-convertibility contract akin to those discussed by Gorton (1985), Dowd (1988) and Postlewaite and Vives (1987).

Compared to notes, demand deposits at first played a minor role. Reporting on conditions in the 1840s Parkes (1852: 181) noted that local bankers had 'a decided aversion toward extending such liabilities' except in a few instances involving friends who were also reputable merchants (though chequing accounts were routinely available at foreign and foreign-style banks). Of much greater importance were time deposits, which were withdrawable only in whole, and never by cheque, and which accounted for the bulk of native bank liabilities. These deposits paid interest at rates typically around 9 per cent per annum for the larger banks, which was comparable to rates paid by foreign banks. Rates offered on deposits by smaller banks were higher, reflecting a higher risk of insolvency (Parkes 1852: 181; Anonymous 1925a: 4; 1927a: 136). No interest was paid on demand notes. This contradicts the view of legal-restrictions theorists such as Wallace (1983) that banknotes would pay interest or else give way to interest-bearing, small-denomination bearer bonds, in an unregulated setting.[7] It suggests at the same time a possible source of inefficiency in the form of suboptimal holdings of real money balances.

Unlike foreign and foreign-style banks, local banks observed traditional Chinese business customs (Anonymous 1932: 447; Wong 1936: 398–99; Chang 1938a: 29). They closed only on Chinese holidays, remained open on Sundays, and had no midday closing hours. They were also known for their courteous accommodation and convenient procedure in the withdrawal of funds, which on some occasions included delivering funds by special messenger to customers in urgent need (Chang 1938a: 30). Such service, together with more widespread offices and thorough knowledge of local enterprises, made local banks more successful than modern banks in lending to small businesses. It also allowed them to do an exclusive business in interior regions, so that modern banks had to use them as agents for lending there.

Note exchange and clearing

Although small banks sometimes paid out notes of larger banks, or used them to redeem their own notes, large banks issued only their own notes,

7 For further evidence contradicting the legal-restrictions view, see Makinen and Woodward (1986) and White (1987).

returning all others immediately on receipt in exchange for their own notes collected by rival banks or for cash. Thus, banknotes played only a limited role as high-powered money, with specie being the most important bank reserve medium. This was an important reason accounting for the inability of local banks to overissue independently of their rivals or to engage rivals in a system-wide overissue. It is in sharp contrast to the situation faced by a privileged monopoly bank of issue, the liabilities of which generally come to be treated as a reserve asset by less privileged banks (Selgin 1988a: 47–49). Daily note exchange had already become standard practice by 1847 (Parkes 1852: 184). Large banks accepted one another's notes at par, which further served to expand the market for notes (Parkes 1852: 182). Parkes was greatly impressed by the 'mutual support' local banks derived from 'constantly exchanging and continually cashing each other's notes'.[8]

Though no details are available concerning early clearing arrangements, by 1927 there were no fewer than five different note-clearing centres, consisting of a central clearing house at Shang Hang Chieh and its four branch units (Anonymous 1927: 134). Clearings were held every morning at 11 o'clock. Balances were settled in the afternoon, usually in cash. Clearing-house members forced to delay payment were required to pay an interest fee ('*tieh fan shui*') to creditor banks at a rate of $1.10 to $1.20 cents per diem for every $1,000 owed (Anonymous 1932: 441; Wong 1936: 399). This charge was set daily by the Native Bankers' Association. Banks did not, however, often take advantage of emergency borrowing privileges: the rates involved were punitive, and any bank habitually unable to pay its clearing balances was likely to face a loss in public confidence, possibly resulting in a run.

Perhaps the most important consequence of daily note clearings was that no bank could afford to be overgenerous with its issues. Thus Wagel (1915: 177) observed that 'while there was no lawful check on the issue of paper by the banks, the evil of the unrestricted issue was to a large extent minimized.' Certainly, it was less than the 'evil' which had occurred in previous centuries when paper money was issued by the Chinese government rather than by competing, private banks (cf. Williams 1851: 292–95).[9] This supports the claim of, for example, Selgin (1987, 1988b) and White (1984b, ch. 1), that competition in the issue of redeemable notes places strict limits on note issue.

8 For an account of how mutual acceptance of notes emerges in conditions of competitive note issue, see Selgin and White (1987) or Selgin (1988a: ch. 2).

9 For references on inflation before the Ch'ing Dynasty, see Tullock (1957).

Failures and panics

Before the twentieth century, local-bank failures were infrequent and generally confined to small banks or cash shops (Jernigan 1904: 100). Sir Harry Parkes reported that only four small banks had failed from 1844 to 1848, and that ‘a general crash, seriously affecting the public interest, is a thing unheard of’ (Parkes 1852: 181). Banks that failed usually did so just before the Chinese New Year, when many debts had to be settled, causing exceptional withdrawals of cash and bullion and bringing to light the existence of bad loans. This put a heavy strain on weaker, poorly managed banks.

Premeditated fraud was rare, though it occurred in isolated cases. Defaulting banks usually paid off between 50 and 60 per cent of their outstanding liabilities (Parkes 1852: 185; see also Anonymous 1924b: 1–2; 1925a: 3–4). This suggests that most failed bankers were not fraudulently absconding with assets.

Though the public had no reason to suspect foul play on the part of bankers, this did not prevent bank runs (known in Foochow as *kun piao*). The insolvency of a single bank (especially at the end of the year, when other banks were also at greatest risk of default) often triggered runs on other banks suspected of being low on cash or specie (King 1965: 103). Thus the native banking industry appears to have been exposed to confidence or information externalities, which were, however, limited to small banks. On the other hand, the clustering of runs around the New Year suggests that panics, rather than being random events as suggested by Diamond and Dybvig (1983), Waldo (1985) and others, were instead based on a kind of prior, real ‘shock’ with predictable adverse repercussions on bank earnings. Ironically, banks’ unlimited liability, which might have discouraged bank runs, seems actually to have encouraged them because of China’s special, help-yourself version of unlimited liability. According to Justus Doolittle (1865: 142), if a bank could not redeem its notes in copper cash (or some preferred medium) on the spot, the noteholder could ‘seize hold of anything in the bank and take it off, to the full amount of his demands’ without being liable ‘for prosecution for theft or misdemeanor’. Consequently, the disappointment of a single noteholder could provoke his immediate confiscation of bank property, which would in turn draw other bank customers (who might not originally have been after cash) into a frenzied round of ‘bank gutting’.

Until 1855 noteholders engaged in bank gutting would quickly be joined by other persons who had no legitimate claims against the run-upon banks.

'Beggars and idlers' were 'only too happy to assist in such an exciting and profitable hobby as robbing a bank'. Once this happened, a run would degenerate into a full-scale riot: 'When an excited and interested crowd has begun such a work,' Doolittle observed, 'it is exceedingly difficult to prevent the completion of the undertaking.' It was not unusual for a bank, once run upon, to be robbed 'of every portable thing worth carrying off, even to the sleepers and the rafters' (Doolittle 1865: 142).

Such inadequate protection of bank property made bank runs more severe and frequent than they would have been otherwise. It also added to the losses suffered by legitimate claimants, because many bank gutters were 'nothing but thieves and robbers'. At last, in 1855, in the wake of a particularly severe run on several small banks (including one that had not even been guilty of defaulting on any of its notes before it was looted), the provincial authorities decided to put a stop to unwarranted bank gutting. They arrested several rioters ranging from a poor coolie to a respected rice dealer. After determining that the arrested were guilty of robbery (having held no claims against the victimised banks), the viceroy – at the risk of provoking an uprising – beheaded them, without trial, before a large crowd of other looters. According to Doolittle, this 'summary act at once quelled the disorderly rabble, and no such disposition to rob a bank was manifested … for a considerable time' (1865: 142).[10] Following the 1911 revolution the bankruptcy law was revised and bank gutting became illegal.

Even before 1911 larger banks had been able to protect themselves against runs. They would assist each other with emergency loans of cash, and it was not unusual for friends of a bank to rally around it during a run to maintain order and to keep looters away (Doolittle 1865: 143; Jernigan 1904: 97). In the early days more reputable banks, if threatened by a run, could secure permission from a local mandarin to suspend payment. A bank that secured such permission would be closed, its doors sealed by two long strips of paper in the form of an X (Doolittle 1865: 144). The strips bore, along with other notices, the name of the responsible mandarin, who might even pledge his personal assets as security for the bank's liabilities (Parkes 1852: 185). After

10 The provincial authorities had to intervene again to protect small banks in 1887, when the failure of the Chi'un Feng Bank provoked runs on several other cash shops (*The Peking Gazette*, as quoted in the *North China Herald* of 29 April, cited in King (1965: 103 fn)). In later years the provincial authorities also tried to limit failures of cash shops by prohibiting them from issuing small-denomination notes (Imperial Maritime Customs 1891: 415). However, since such prohibitions had to be issued on several occasions, it is doubtful that they were ever heeded.

being officially sealed the bank could settle its accounts with greater leisure than would otherwise have been available to it. Eventually, this practice evolved into the custom of having insolvent banks post signs and publish notices declaring that they would 'hereafter pay' (*huo chi*), i.e. redeem all their outstanding notes and not undertake any further issues. Once a bank formerly announced its plans to liquidate its assets and pay off its notes, its property could not be confiscated even before the reform of 1911 (Doolittle 1865: 144; see also Anonymous 1925a: 3–4).[11] This was one means by which large banks were able to protect themselves from information externalities.

Thanks to such emergency measures and to their long-standing reputation for trustworthiness, the *tso piao* were practically immune to runs and to failure due to runs. Their record appears to have been unblemished until the crisis of 1922.

Counterfeiting

Counterfeiting of local banknotes was discouraged through an ingenious technique known as the 'proof-slip' system for identifying legitimate notes. Notes were printed with extra-wide right-hand margins on which various words, phrases or even complete sentences would be stamped or written. Then the margins of a stack of freshly printed and marked notes would be trimmed with a sharp knife. The trimmed-off slips of paper, bearing half of the marginal identification markings, would then be kept in a reference book after having the value and date of issue of the formerly attached notes recorded on them. If a bank had any doubt concerning the authenticity of a note presented to it for payment, it could check the proof-slip to see if the identification markings matched. Thus forgeries, unless executed with such skill that their authenticity was never questioned (an unlikely possibility, considering the elaborate system of special inks and markings used in preparing legitimate notes), would be detected rapidly. This greatly increased the odds of tracing them to their source.

Thanks to such precautions counterfeiting was seldom practised in the earlier days of Foochow's free banking system, despite relatively lenient penalties typically applied to forgers (Williams 1851: 292; Parkes 1852: 185; Doolittle 1865: 138). When it did occur it was on a very small scale, involving notes of small denominations (which were less scrutinised). In

11 On the economic rationale of bank suspension of payments, see Gorton (1985).

an exceptional case local bankers put a stop to a particularly intransigent forger by *hiring* him as an expert detector of other forgeries (Parkes 1852: 185–86)!

Following the Nationalist takeover – when former cash notes had been entirely replaced by Dai-Fook dollars – counterfeiting for a time became more frequent (Anonymous 1927: 130–31). This was due partly to the declining quality of local notes in the twentieth century: the paper was poor, and the printing was less intricate and less well executed than before. This probably reflected the general decline in prosperity suffered throughout Fukien since the 1850s, due to the collapse of the tea trade and continuing political instability. The proliferation of counterfeits made local banknotes less convenient, as they would sometimes be refused unless declared authentic by an expert or endorsed by their tenderer (if his credit was good) (cf. Cagan 1963: 19–21). Many notes were blackened by multiple endorsements. Yet even this did not guarantee their authenticity, for counterfeiters soon learned to add fake endorsements to their issues, which gave them the appearance of having circulated for a long time. Eventually, experts were employed by all banks to scrutinise all notes received, and the counterfeiting problem diminished. Thus even by the early 1930s native banknotes continued to be the main circulating medium in Foochow, being preferred even to notes issued by the modern banks (Anonymous 1932: 440). They continued to circulate at par and to command a premium over cash until they were suppressed by provincial and central government reforms (Tamagna 1942: 68).

The end of the free banking era

Despite counterfeiting, mounting political instability (including periodic military occupations and the continued threat of forced loans brought by them) and economic depression, the local banks of Foochow and their note issue business in particular remained profitable and commanded high public confidence well into the twentieth century. They had carved a niche for themselves which modern banks, both domestic and foreign, were not able to fill.[12]

Unlike the Shansi banks, which relied on the Imperial government as their main source of funds, local banks survived the Republican revolution,

12 On the competitive advantages possessed by local banks, see Anonymous (1926) and Wong (1936: 398).

even benefiting from it by taking over some of the business formerly given to the larger native banks. The revolution also ended the Imperial banking regulations of 1907–9, intended to restrict private note issues by imposing a stiff 60 per cent cash and specie reserve requirement, but never enforced in the south (Young 1939: 225).[13]

Ironically, the same lack of involvement with central government affairs that saved local banks from the fate suffered by Shansi banks also hastened their ultimate decline. While many local bankers were inclined to support the revolutionaries, they had relatively little to offer them in the way of funds. In contrast, several modern Chinese banks lent heavily to the Republican (and later Nationalist) government. This eventually cost local banks their right of note issue, as 'a connection' developed 'between the right to note issue and the loaning of funds to the government' (McEldery 1976: 144). The connection first became evident under the Republican government, which between 1913 and 1926 borrowed $600,000,000 (yuan), almost all of it from modern banks. In 1926, their last year in power, the Republicans borrowed another $80,090,000, less than 8 per cent of which was lent by local banks. As a sop in return for these loans the government renewed the Imperial regulatory agenda, modified to include provisions favourable to the modern banks. Besides re-implementing the 60 per cent reserve requirement on note issue, the Republican reforms of 1915 and 1920 marked a victory for modern banks by making their notes alone receivable in payments to the government (McEldery 1976: 144–45).

Fortunately for local banks in Foochow and elsewhere in the south, the Republican government, like the Imperial government before it, was unable to enforce its regulations in that part of the country. Only following the Nationalist takeover did regulations favouring modern banks take their toll on local banking in Foochow. Like the Republicans the Nationalists borrowed heavily from the modern banks, especially to finance military expenditures: by 1935 they had an outstanding debt of over $1 billion – exceeding the estimated value of $800 million for the aggregate value of native bank assets (Tamagna 1942: 62) – with native bank loans accounting for less than 5 per cent of the government's borrowings (McEldery 1976: 163). As the Nationalist government grew, so did its financial demands from modern banks. It therefore continued Republican reforms that

13 A law passed by the Imperial government in 1908 actually awarded a monopoly of note issue to the Ta Ching Bank (established in 1905 as the Hupu Bank), but was not enforced. The Ta Ching Bank collapsed with the downfall of the dynasty (Tamagna 1942: 35).

favoured the modern banks, simultaneously pressurising them to absorb large amounts of government debt while placing additional restraints on note issues by local banks. An example of such restraints was the suppression of the popular Dai-Fook dollar-unit in Foochow in 1928, which was aimed at eliminating the main advantage (for local exchange) possessed by native banknotes over modern, silver-dollar-denominated notes. Although the 1928 reform was for a time evaded, it was effectively enforced by the provincial reform of 15 March 1933, which abolished the *hua piao* (copper yuan) unit while also requiring native banks to back their fiduciary note issues with real-estate collateral valued at 30 per cent below its market value (Wong 1936: 400). This reform also for the first time made note issue a privilege, subject to the approval of the Finance Department of the provincial government.

Other reforms directly enhanced the privileged status of modern banks while at the same time forcing them to employ their resources to finance China's deficits. In March 1935 the government took control of the Bank of China and Bank of Communications by forcing them to issue more shares in exchange for government bonds. The capital of the Central Bank of China was also augmented by the same means (Coble 1980: 180–81). The power of private bankers was correspondingly eroded. This action was followed by the reform of 3 November 1935, which made the notes of the three government banks – the Central Bank of China, the Bank of China and the Bank of Communications[14] – full legal tender or *fa-pi* currency. The Central Bank of China, which had been the main fiscal agent to the Nationalist government since being rechartered in Shanghai by that government in 1928, was given the sole right of unrestricted legal-tender issue. The authority given to the other modern banks to issue legal tender notes could be rescinded at any time by the Ministry of Finance.

While notes of modern banks were made legal tender, the use of silver as money was declared an act of treason. Silver coin and bullion had to be turned in to the Currency Reserve Board of the Ministry of Finance, or to one of the legal-tender issuing ('official') banks, in exchange for legal tender notes. The former 60 per cent specie-reserve requirement became de facto 60 per cent legal-tender reserve requirement. This meant that the government banks could expand their issues without confronting any sort of liquidity constraint.

14 Notes of the Farmer's Bank of China were included upon its establishment in 1937.

The immediate circumstance provoking these reforms was the continuing loss of silver reserves by modern banks and by the Central Bank of China in particular. This was largely due to the American Silver Purchase Act of 1934. But the government also had another motive for abandoning the silver standard, which was its desire to use *fa-pi* currency to monetise its growing deficits (Tamagna 1942: 4; Coble 1980: 202–3; cf. Brandt and Sargent 1989). In just over eighteen months the combined note issues of the government banks increased almost fourfold, from $427, 414, 917 to $1,607, 202, 334, less than half of which represented notes issued in exchange for silver. Prices expressed in yuan, which had fallen 21 per cent in the three years before the reform, afterwards rose 43 per cent (Shen 1939: 224). China was on its way to experiencing yet another instance of government paper money becoming utterly worthless.

It is significant that local banks, had they been allowed to adhere to a copper standard, would have been immune to fluctuations in the value of silver that threatened modern banks. Bloch observed that while silver slumped heavily in 1930 and 1931, coppers rose in terms of the standard silver dollar. On the other hand, when silver rose from 1931 to 1935, coppers depreciated considerably. Thus, China's copper currency has been more closely related to the general international movement of prices than China's silver currency.[15]

Though actual copper currency was phased out in many parts of China, copper–silver exchange quotations continued to be used to make cost-of-living adjustments in contracts specifying payment in silver.

A final provision in the new reform prohibited local banks from extending their note issues. Their outstanding notes were to be gradually retired and replaced by notes of the Central Bank of China. The Ministry of Finance planned to give the Central Bank of China a monopoly in note issue (Shen 1939: 223; Young 1939: 229). But this goal was set aside with the outbreak of the Sino-Japanese War in 1937, and it became a dead letter when the Communists gained power in 1949. From then on the Communist People's Bank became the focus of monetary reforms, gradually taking over the branches of the Central Bank of China as well as local bank offices. By the mid 1960s local banks had been completely phased out (Ecklund 1973: 580). Private notes disappeared along with them.

15 This had also been true during the quarter century before 1851, when silver appreciated markedly and the purchasing power of cash remained stable (Wang 1977: 19). According to an anonymous referee, however, copper currency depreciated twice as rapidly as silver between 1918 and 1927.

Or did they? According to a report in the *Far Eastern Economic Review* of 11 April 1957 (Anonymous 1957), Communist financial experts were perturbed by their discovery in the late 1950s that Agricultural People's Cooperatives (APCs) throughout the country were illegally issuing large quantities of small-denomination bearer notes (to make up for insufficient issues of small notes by the People's Bank). Government officials were reluctant to take steps against the APCs, for fear that the publicity would inspire more of them 'to adopt the expedient to solve their own difficulties'. The government did, however, issue a statement in the *People's Daily* denouncing the unauthorised note issues as a 'Capitalist crime'.

Conclusions

Though not free from shortcomings, Foochow's free banking system – an example of complete laissez-faire in paper currency and banking – can be judged to have been largely beneficial. True, it was based on an archaic copper-cash system, with a confusing array of units of account. But the local banks themselves were mainly a source of order, convenience, efficiency and stability. Their currency was widely preferred to cash, and it provided a superior unit of account. Native banks were an important source of loanable funds, and there is no evidence that they behaved recklessly. On the contrary: by all accounts the local banks of Foochow were among the most reputable ever to have operated in all of Chinese history (e.g. Fortune 1847: 372–73; Parkes 1852; Williams 1863: 271; Doolittle 1865: 138ff; Imperial Maritime Customs 1922; Anonymous 1927; Tamagna 1942: 68). There were few losses to noteholders from local bank failures, and only smaller banks were vulnerable to runs (which were in any case encouraged by a peculiar approach to unlimited liability). Finally, although the record of local banking was in later years marred by counterfeiting and by serious banking crises, the source of this was political unrest and not any instability inherent in the banking system. On the whole, local banks performed better than Chinese government banks either before or after the free banking era. In China as elsewhere, decentralised currency supply was abandoned, not because of any inherent shortcomings of competitive note issue, but largely because the government wanted to improve its ability to borrow from particular banks.

In brief, the shortcomings of Foochow's monetary system existed despite, and not because of, its freely evolved banking institutions. The case of

Foochow supplies further evidence that free banking is neither inherently unstable nor inferior in practice to centralised banking. It was, moreover, only one of numerous instances of free banking in China – of which many were more important and quite possibly more successful.[16] A comprehensive study of free banking in China should prove a most worthwhile undertaking.

16 In 1927 Canton had over 500 native banks, Swatow over 200, Ningpo over 100, and Shanghai 80 (compared to Foochow's 45). Although Canton's banks were on average twice as small as Foochow's, those of Swatow and Ningpo were about the same size, and Shanghai's were typically much larger (Tamagna 1942: 59–61). On native banking in Canton, see Ou (1932); on Shanghai, see McEldery (1976); and on Ningpo, see Jones (1972).

9 FREE BANKING IN FRANCE, 1796–1803

Philippe Nataf

Introduction

The economists of the eighteenth century regarded free banking as the natural banking system, and they believed that the most efficient, stable and just way of organising it was to allow it to grow spontaneously. As early as 1735, Richard Cantillon in his famous book *Essai sur la nature du commerce en général* criticised the monopolistic privileges granted to banks by European governments. The first physiocrat, Vincent de Gournay, using for the first time the maxim '*Laissez-faire, laissez-passer*', advocated the abolition of all restrictions on agriculture, commerce, industry and credit. He also advocated the freedom of interest rates, against the prejudices of his time, in favour of usury.

His disciple, Jacques Turgot, managed to open the field of corporate banking in France. He arranged for the Caisse d'Escompte to begin operations in 1776 and he regarded the opening of this bank as the first step in the creation of a free banking system along the lines of the Scottish system described by Adam Smith in *The Wealth of Nations,* in 1776. This free banking system served as an ideal for the French economists. Freedom in banking became for them the model of a natural and efficient organisation. It was justified in theory and confirmed by the economic progress demonstrated in Scottish history.

Turgot's reform programme was halted when he left the government, and the Caisse d'Escompte found itself with an unintended monopoly in the field of banking. Its exclusive privileges generated monetary crises of a kind unknown since the collapse of John Law's Bank in the beginning of the eighteenth century. The Count of Mirabeau analysed in his book *De la Caisse d'Escompte* (Mirabeau 1785: 141) the annoying consequences of this monopoly. Noticing the link between the 1783 financial crises and 'the troublesome and difficult periods that afflict commerce almost periodically', Mirabeau endorsed equal treatment for borrowers, opposed bank privileges, and cited the British systems as examples. His opinion was based on the observation that as banks in 'the three British Kingdoms' spread, commerce and manufacturing flourished, creating prosperity for all classes of citizens. This situation, he wrote, 'thus facilitated long-term credits which give the English merchants a marked superiority over those of all other nations' (Mirabeau 1785: 34).

The opposition to all privileges, including those for banks, became, in the 1750s, the dominant attitude among French economists. Four translations of Adam Smith's famous book had already appeared by the start of the French Revolution[1] and Smith reinforced the physiocratic influence on the members of the Constitutional National Assembly (see Higgs 1963: 4; Garnier 1874: 367). The laissez-faire ideas of the physiocrats were so widespread that when the economist Du Pont de Nemours proposed total freedom in banking he got the backing of a clear majority. 'Banks should be submitted to the laws of free trade', he said, 'if this privilege includes some exclusivity, you should refuse it. You came here to abolish exclusive privileges and not to create new ones' and, concluding his speech, he advocated that 'the establishment of banks should be free like any other commercial enterprise' (Du Pont de Nemours 1789: 38, 40).

This programme was endorsed by Laborde and Lecouteulx de Canteleu as well as Du Pont de Nemours, whose speech favouring free banking was immediately published as a booklet which was much acclaimed by the public. However, several factors prevented the development of a true free banking system. The *caisses patriotiques,* recently studied by Eugene White (1989), can hardly be considered free banks. Most, and probably all of them, lacked the legal status of large-scale associations of individuals. The corporate framework of joint-stock banks organised by freely contracted by-laws did not exist. The rapidly changing legislative situation, political instability and the *assignats* inflation most likely account for this state of affairs. As far as we know, the *caisses,* although numerous, did not issue a significant portion of the money supply. Finally, sound free banks cannot be based on a rapidly depreciating fiat paper money like the *assignats*. These historical considerations explain an important fact: not a single member of the French Free Banking School considered this experiment as a free banking system. None the less, the multiplication of the *caisses patriotiques* shows

1 Translations from the French are by the author. See Vanderblue (1939: 24–26).

the existence of a demand for a full-scale corporate banking organisation as it appeared a few years later. In any case, price controls destroyed even the embryonic credit system of the *caisses patriotiques* until the end of the Reign of Terror. When domestic peace and monetary stability came back in 1796 the time was ripe for the spontaneous emergence of what could truly be called a free banking system.

As soon as freedom of speech reappeared, the economist Camille Saint-Aubin (1795) published a small book, *Des banques particulières*, advocating free competition for banks.[2] In 1796 ideas favouring economic freedom, including for the management of all banking operations, were widely spread.

Competitive banking: spontaneous expansion and monetary stability

The free banking period in France (1796–1803) is relatively well known to historians (e.g. Smith 1990: 29–30). From F. Buisson (1805) to Edmond Servais (1960) and Louis Lair (1967), this era has been described with accuracy and fairness.[3] Economists Paul Coq (1850), Charles Coquelin (1874) and Edouard Horn (1866) provided revealing interpretations of this period's banking system. Interestingly, no historians of this topic have complained that this credit organisation did not work or even that it contained important defects. On the contrary, Courtois (1881), Coq, Coquelin, Horn and their disciples pointed out the efficiency and the stability of this period's banking under free competition.

'When the peace of Amiens was signed (March 1802), six institutions existed in Paris for discounting and issuing claims ("effets"), (Banque de France, Caisse d'Escompte du Commerce, Comptoir Commercial, Banque Territoriale, Factorerie du Commerce, Caisse d'Echange des Monnaies) and six *caisses* for receiving funds or granting credit to the public without issuing claims.' These remarks by Gabriel Ramon (1929) in his well-documented *Histoire de la Banque de France* show the existence of several banks of issue in Paris at the beginning of the nineteenth century.

2 This book is presented as a translation: noting that it is 'a notorious fact' that Scottish banks 'produced advantages for all', Saint-Aubin concluded that 'there is no reason why their establishment would not produce the same advantages in France' (Saint-Aubin 1795: 76).

3 Buisson (1805: Caisse d'Escompte du Commerce, pp. 340–41; Comptoir Commercial, pp. 381–82; Banque de Rouen, pp. 237–41; Banque de France, pp. 212–20); Servais (1960: 35–36); Lair (1967: 56–60).

In order to understand the rapid extension of free banks and their operations, one must recall certain characteristics of the old regime. If private bankers operated in large numbers in continental Europe before the French Revolution, discounting banks managing under the status of commercial corporations were relatively rare. Only Scotland, soon followed by England, escaped this apparently general rule. Notwithstanding the important need for large credit institutions, France had authorised only one bank to operate as a commercial corporation. Although not conceived as a central bank the Caisse d'Escompte had issued banknotes without competition since 1776. Banks, like other corporations, needed legal authorisation to begin their activities and in spite of a large demand for credit, as shown in France at the turn of the century (1796–1803) or in Great Britain, the administrative authorities refused to grant the right to create new credit institutions. Government restrictions thus prevented the development of banks to compete with the Caisse d'Escompte.

The reason for French backwardness in banking was pointed out by Coquelin in his famous *Dictionnaire de l'économie politique* (1874) and in *Le crédit et les banques* (1848). He wrote (Coquelin 1874: 135):

> it is too easy to recognize this cause in the brutal resistance from laws which opposed very strong obstacles to the multiplication [of banks] … In old France [before 1789] no bank institution could have been founded without the direct intervention of government. Furthermore, it was not even permitted to open a stockholders' corporation without its permission; corporations of this kind being forbidden by law. Consequently there have been no public banks (joint stock banks) under this regime other than those instituted by the government. The mind of the French nation and the particular character of its industry has nothing to do with this question … Only two experiments with banks have been made by the old government, one in 1716 with the bank of John Law; the other, in 1776 with the Caisse d'Escompte.

Given such obstacles, banking in France was reduced to the activities of individual bankers using funds of a relatively limited scope.

The French Revolution is a complex event. However, the understanding of the free banking era in France requires the examination of certain pieces of legislation. On 4 August 1789 all privileges were repealed by the Constitutional National Assembly. This Assembly passed in 1791 a specific law favouring freedom of work and domestic free trade. Without the *assignats* inflation and political instability, free banking probably would have appeared at that time in the form of large-scale corporations as they did later on. But two new obstacles to banking then appeared: first, a decree of 8 November 1792 prohibited all claims like bills of exchange or banknotes and later, in April 1794, all business corporations including banks were banned. These factors explain, in large part, the postponement of free competition in banking.

After the fall of the Robespierre dictatorship, an entire book, *Des banques en France*, published by Saint-Aubin in 1795, advocated free competition in banking along Scottish lines, while the spokesman for the Finance Commission of the Conseil des Cinq Cents (a legislative body), Monsieur Eschasseriaux, recommended immediate repeal of the anti-bank laws of 1792–94. He advocated 'the establishment of free banks ... which would serve to expand our commercial relations, to rejuvenate credit, to increase the progress of trade, agriculture and arts, and which would become as in England and Holland, the source of national prosperity' (cited in Ramon 1929: 13). This advice led to the abolition of all restrictions on banks and to the end of inflation. Immediately, banks began to spring up and grow.

In his *Dictionnaire*, Coquelin (1874: 137) made the revealing comment that,

> at the end of our great revolution, when the terrorist regime had just ceased and the memory of the *assignats* was still recent, several corporations opened in Paris to discount and issue banknotes. As laws on that matter were either abolished, or had fallen into obsolescence, these institutions opened spontaneously without other rules than their by-laws. In spite of the confusion still reigning at this time, and the prejudice supposedly rooted in the minds against any kind of credit paper (bills and notes), they did not have too much trouble finding their way; this proves anew this truth, that in spite of so many bad memories, banks would have spread in France as easily as elsewhere, if obstacles had not been put intentionally to bar their progress.

This sentiment was echoed by Jean-Gustave Courcelle-Seneuil (1920: 35), who wrote that

> the Revolution had left France under the regime of freedom for banks, and, at the end of the XVIIIth century, no legislation hampered the issue of redeemable notes. So, as soon as the catastrophe of the *assignats* and of the *mandats territoriaux* was over and government stopped issuing paper

> money, private credit reappeared … several corporations settled in successively, all of them issuing redeemable bank notes.

In 1881, Courtois, in his *Histoire des banques en France*, summarised the development of the French banks of issue. On 29 June 1796 a group of bankers created a bank of issue to facilitate their activities. It was the Caisse des Comptes Courants, located in the centre of Paris. Its resources consisted of FF5 million of equity and banknotes to the value of FF20 million. It is worth noting that its own resources amounted to 20 per cent of its assets. Financed by such an equity, the bank enjoyed great strength. With 20 per cent of its assets financed by its own funds, the bank was well sheltered against normal business risks. However, an unusual disaster befell the Caisse on 17 November 1797 when thieves stole FF2.5 million – representing 10 per cent of the bank's assets. Today, such a loss would destroy almost any bank.[4] But its strong equity position and its liquidity enabled the Caisse des Comptes Courants to avoid failure and successfully to face the run that followed.

If solvency avoided total failure, the liquidity of its assets permitted immediate redemption when the run began. Du Pont de Nemours, in his book *Sur la Banque de France* (1806), explained the situation as follows. When this 'loss' occurred, banknotes in circulation amounted to FF16.5 million. These notes were backed by a very liquid portfolio of bills of exchange for a net value of FF13 million, by cash of over FF4 million, and by cash from surplus capital of FF940,000. Total liquidity amounted to FF18 million, and consequently Du Pont commented that the Caisse 'could pay.' He added that (Du Pont de Nemours 1806: 33–36)

> several of its stockholders and managers were men of intelligence and common sense. They showed that … [notes] were backed and that therefore one should remain calm. With their corporation lacking the protection of special legislation, the responsibility of the stockholders would be pronounced under general common law, and it would be more honourable for them, and viewed more favourably by public opinion, to assume it [their responsibility] themselves, like a spontaneous movement of their loyalty and of their will.

After only one day of suspension of payments, the stockholders pledged to reimburse every note, the bank reopened its doors and confidence was

4 According to the statistics published by *Le Nouvel Economiste* (November 1986, pp. 256–61), the average equity of French banks represented less than 2.5 per cent of bank assets.

rapidly restored. The run stopped and no failure occurred. For Horn this strength in difficult times stems from the characteristics of a free bank of issue. Its managing corporation 'has no legal privilege and is submitted to general common laws, which means that all stockholders are responsible for their social commitment' (Horn 1866: 321).

To analyse further the nature of this bank it is necessary to add that its capital was divided into a thousand shares, each worth FF5,000 each. The Caisse circulation of FF20 million consisted of notes with face values of FF500 and FF1,000. Such face values were high for the time. The stockholders established a 6 per cent discount rate on a ninety-day basis and all discounted bills were required to bear three signatures. The requirement for three signatures excluded merchants and industrialists. As a result the borrower had to seek a private banker's signature, further increasing the discounting cost. Coq and Horn thus concluded that this bank was reserved for bankers and was bound to face competition from newcomers in the field.

In *La liberté des banques,* Horn commented on the rapid evolution of the banking situation (Duverneuil and de la Tynna 1800: 596).

> Created by bankers and for bankers, the Caisse des Comptes Courants only benefits commerce and industry in an indirect manner, and it sometimes hurts them: the agreement born from this association diminishes competition or lessens it between banks, to the great disadvantage of people requesting loans or discounts. To escape the exploitation, large businesses and manufacturers enter into partnerships.

The Caisse d'Escompte du Commerce was founded on 24 November 1797. At this time the 47 stockholders owned a capital of FF470,000 and as early as 1802 its resources increased to a nominal capital of FF24 million, of which only FF6 million was advanced, and to a circulation FF20 million in banknotes. This institution discounted, according to the *Dictionnaire universel de commerce,* the associates' bills 'not exceeding sixty days and bearing (only) two signatures if they had a solid reputation' (Buisson 1805: 340).[5]

5 In the same entry we learn that the Caisse d'Escompte du Commerce opened not only demand deposits, but also time deposits bearing market rates of interest for important merchants. The Caisse was dedicated exclusively to commerce, and did not accept government bonds in its assets. Apparently, the equity grew rapidly and reached FF24 million, which represented more than half the total liabilities. Consequently, and understandably, this entry concludes that 'such was the solidity of this institution, that after six years of existence, and during very stormy times [Revolution and wars], it suffered no losses' (p. 341).

Apparently, this bank also received time deposits bearing high interest as a result of its use of short-term loans and was very stable. Its strength, noticed by Du Pont de Nemours, stemmed also from its high solvency and liquidity. He wrote that in June–July 1802, 'one of the managers of the Caisse d'Escompte stole FF800,000; but it still held, in addition to its portfolio, more than sufficient assets in écus [metallic money] and other assets in buildings … Its payments have been neither suspended nor slowed down. Its notes did not lose any value' (Du Pont de Nemours 1806: 36). Its developing resources and discounts (Horn 1866: 323)

> considerable for the time and for the group that used them attest to a real success. It provokes imitation. The retailers did not wait long to follow the example of the merchants and the industrialists. They created in 1800 the Comptoir Commercial, also known as the Caisse Jabach.

This third banking institution, also located in the centre of Paris, discounted Parisian bills and issued notes with face values of FF250, FF500 and FF1,000 (Duverneuil and de la Tynna 1800).

Other banks of issue began to operate (although on a smaller scale) in the same central business quarter of Paris. Such institutions included the Factorerie du Commerce, La Banque Territoriale and the Caisse d'Echange des Monnaies, which also operated in Rouen. It issued redeemable banknotes with a face value of at least FF20. In this city another bank of issue functioned, the Banque de Rouen, also called Société Générale du Commerce, which was founded on 20 April 1798. This bank discounted bills with only two signatures and paid interest on its deposits.[6]

The documents of the period show that, in spite of difficult times (wars, theft, embezzlement), banks suffered no failures. They functioned 'freely, smoothly and to the high satisfaction of the public' (Courcelle-Seneuil 1867). The importance of their own funds (equity financing 20 per cent or more of

6 After 1796, some 'banks' began to issue notes 'backed' by copper tokens. The renowned free banking advocate, Michel Chevalier, did not recognise the authenticity of these issuances. 'Alleged banks', he wrote, 'were founded which issued notes redeemable in tokens made of copper' (see Coquelin 1874: 180). More recent research in the French archives by Jacoud (1996) confirms the two types of banks: his list presents the same institutions in Paris and Rouen but he adds the Caisse d'escompte et de commerce de Troyes. These banks issued large-denomination notes (FF500 or FF1,000). The other type called 'banques de sols' issued smaller-denomination notes (FF10, FF20) convertible in copper were presented in Paris, Rouen, Tours, Amiens, Saint Quentin, Troyes and Nantes.

the assets) and the responsibility of their stockholders explain in large part the capacity of these banks to meet several demands for the redemption of notes. Prosperity, liquidity, solvency and stability characterised the credit institutions of the Directory and the Consulate. The free banking system of France worked remarkably well.[7]

Napoleon's destruction of free banking

The idea – so widespread today – that free banking would be and has been very unstable, never entered the minds even of its opponents in early nineteenth-century France. If the adversaries of free banking recognised its prosperity, solvency and stability, then why was it destroyed? Enigmatic as this question seems today, historians of the era devoted considerable attention to this paradoxical issue. Horn and Coq expanded Coquelin's explanation. In the twentieth century Ramon and Achille Dauphin-Meunier brought more light through extended research on the topic. Horn's (1866: 333–34) analysis enlightens the problem with surprising views when he wrote that

> the alleged reason in favour of the monopolized issue [of banknotes] in the preamble to the law of Germinal 24 an XI [destroying free banking] is the exact opposite of that used now by the monopoly. Here is the major argument articulated by M. Crêtet: 'the divided action of banks on circulation and credit runs against any central combination and no bank could ever manage its operations on the needs of business and the situation of money in circulation … This rivalry induces in competing banks prudent behaviour which prevents them from using their means with confidence and which obliges them to refuse loans to commerce in proportion to their needs.' In other words, hampered by their mutual competition, competing banks use the power of fiduciary issue only with timidity and circumscription and in narrow limits; they do not use all the benefits which it provides. Yet, today the principal justification of the opponents to free issue [of notes] is abuse, over-issue, with which competing banks would be led, pushed and fatally carried away! Reconcile who can such clearly contradictory arguments! For me, if in this purely negative part of my chapter I dared to reason and to judge, I would

7 Eugene White (1989) concludes that the French free banking system worked only 'moderately' well. I prefer to stay in the company of Courcelle-Seneuil, Horn, Coquelin, Paul Coq and many others, judging that the system did work remarkably well.

> side without hesitation with M. Crêtet's opinion against his rival opponents. Yes, the author of the law of Germinal 24 [ending the free banking era] is right: competition, jealously watching over and controlling, is an embarrassment, a brake; no free and multiple banks ever pushed or could push fiduciary issue to the excess that, under the regime of privilege and monopoly, we say it reached in England during the 'restriction', in Russia or in Austria. However, this embarrassment, this forced prudence, far from being a defect, is one of the big advantages of free and diversified issue; the reverse [overissue] is one of the large wounds; one of the serious dangers of monopoly.

If free banking was abolished in France by an 'arbitrary act of authority' as Courcelle-Seneuil (1867: 38) terms it, with the only justification being the underissue of banknotes and its correlative limitation of artificial credit expansion, it means that free competition in banking, including notes creation, is the best remedy for our age of inflation ridden with business fluctuations.

The legal destruction of the free banking system did not spring only from an intellectual error; it has other sources which must now be described.

To give a rapid summation of French history at the end of the eighteenth century: a few bankers, afraid of political instability, associated themselves with a successful and popular general, Napoleon Bonaparte, who soon took over power through a *coup d'état.* This general installed an authoritarian dictatorship which immediately began 'banking reforms' jointly with the group of bankers just mentioned. This cooperation of interested bankers and the military-minded Napoleon reintroduced the old and backward corporativist organisation into banking.

By the end of the century two bankers, Jean Barthelemy Le Coulteux de Canteleu and Jean-Frédéric Perrégaux, who had earlier supported classical liberal principles, became increasingly concerned about a return of the terrorist dictatorship of the Jacobins or of an eventual reaction of the royalist party. They had become closely associated with the newly created Caisse des Comptes Courants which by then had to endure the tough competition of newcomers, mainly the Caisse d'Escompte du Commerce and the Comptoir Commercial. Moved by political and economic insecurity, they contacted Napoleon Bonaparte, and initiated him into business life (see Dauphin-Meunier 1936: 15–30; 1937: 13–92). The young student rapidly became a master. In 1799, before an imminent Jacobinist danger, Le Coulteux and Perrégaux sent a Greek emissary to Egypt to reach Bonaparte. 'Bourbaki', wrote the historian Dauphin-Meunier, 'informed Bonaparte that two million French Francs were at his disposal for a coup d'Etat' (Dauphin-Meunier 1936: 19). Bonaparte came back to Paris to 'save the Republic'. His successful *coup d'état* on 10 November 1799 brought him to the position of First Consul the following day. This political event sealed 'the alliance of Bonaparte and the bankers' (Dauphin-Meunier 1936: 20). Wanting his own bank, Bonaparte asked Le Coulteux and Perrégaux to help him with the creation of the Bank of France. In that process, the two previous advocates of economic freedom were led slowly, and reluctantly perhaps, to renounce their former stance. Although he was First Consul, Bonaparte became a stockholder of the newly created bank in January 1800. He was the first subscriber, with 30 shares (see Salin 1990: 115–26; Ramon 1929: 20).

Dauphin-Meunier indicates that although the equity of the Bank of France was FF30 million, divided into shares of FF1,000 each, the founders could subscribe to only FF2 million. He states that 'the Bank had no resources, no location, no personnel, no customers'. The situation required a merger with an operative commercial bank. Bonaparte used the imprisonment of the renowned banker, Ouvrard, to pressurise the Caisse des Comptes Courants. With enforced compliance, the Bank of France began operating on 20 February 1800 in the Caisse's headquarters office in Paris. Its management, a 'Conseil de Regence', of fourteen members, included nine bankers and five merchants (Dauphin-Meunier 1936: 21–23).[8] Since the Board of Directors was elected by a General Shareholders' Meeting, limited to the first 200 stockholders, the Bank had an oligarchic nature, which led Paul Coq (1850) to use the pejorative expression 'Haute Banque' to characterise its management.

Under those circumstances, Perrégaux, who had been named Bank President, thought it necessary to remind the General Shareholders' Meeting on 17 September 1800 that (Ramon 1929: 24)

> free by its creation, which belongs only to individuals, independent by its by-laws, free of privately contracted conditions with government or legislative acts, the Bank of France exists under the protection of general laws and only through the will of its stockholders.

Courtois exposed the underlying hypocrisy of this statement: 'The Bank of France', he wrote, 'felt that, thanks to government support, it had created

8 The bankers were Perrégaux, Le Coulteux, Recamier, Mallet, Germain, Carie, Basterrèche, Sévène and Barillon. The merchants were Robillard, Perier, Perrée, Hugues Lagarde and Ricard.

unfair competition and it tried to dissimulate to the public the harm that this state of affairs caused' (Courtois 1881: 113–14). He added: 'Alas it did not keep for long this blessed freedom of which it was so proud' (p. 48). In spite of the absorption of the Caisse des Comptes Courants, the Bank of France had not been able to place all its stocks. Its subscribed equity was still small and, in the 'absence of depositors, the volume of its borrowing resources, of its current accounts (i.e. demand deposits) was insufficient to allow normal activity' (Dauphin-Meunier 1936: 24–25). In order to increase equity and external resources, the directors requested Treasury funds and deposits from other government agencies. With this artificially increased funding, discount operations expanded from FF100 million to FF320 million in the first year (Dauphin-Meunier 1936: 25).

Other Paris banks were still a serious threat. With government support, the Bank of France attempted several manoeuvres to eliminate competition. First, FF3 million was presented for reimbursement at the Caisse d'Escompte du Commerce. The Caisse stockholders honoured their debt immediately. A few days later, a further FF4 million was presented for redemption and the Caisse paid in full (Dauphin-Meunier 1936: 26). In the light of the Caisse's strength and stability (based on liquidity and solvency), the state authorised the use of brute force to close down this persistent competitor. 'A group of soldiers invaded the building of the Caisse d'Escompte du Commerce, took over all books and papers, threw everybody out and closed the offices.'[9]

At the same time, the management of the Bank of France acted to suppress the freedom to use banknotes. Even Bonaparte's personal adviser, Mollien, was 'not very favourable to the Bank of France' (Marion 1928: 209). Mollien explained that the Bank of France was only a Paris bank, not a national one.[10] Bonaparte, however, was determined to have 'his' bank and, to the satisfaction of the stockholders, the law of 24 September 1803 granted the Bank of France the exclusive privilege to issue banknotes in Paris for fifteen years (Wolowski 1864).

On top of its exclusive privilege of note issuance, the Bank of France, Courtois repeated, counted its assets at FF100 million in 1805 with FF80 million in the form of government bonds and only FF20 million in bills of exchange. He specified that the Bank's cash reserves consisted of FF2 million

9 *Courrier de Londres*, 9 October 1802, quoted by Dauphin-Meunier (1936: 27).

10 Quoted in Marion (1928: 209); and see also Marion (1934: 303–12).

to cover FF70 million in banknotes and FF20 million in deposits (Courtois 1881: 117–20). In addition to all of the Bank's commercial credit, half the government bonds were also financed by fiduciary means. Given such heavy government borrowing and low cash reserves, a run on the Bank became inevitable (Nataf 1984). On 7 November 1805, 4,000 people lined up at 3 a.m. to demand the redemption of their notes and deposits. Before banking hours began, they were already fighting among themselves. In Napoleon's absence, Police Chief Foucher dispersed the crowds by announcing that special documents would be required for withdrawals (Sedillot 1979). This amounted to a de facto suspension of payment.

The financial crisis affected commerce first. Interest rates climbed to 18 per cent. In only two years the monopoly regime had engineered the sharpest depression since the 1720 disaster of John Law's bank (Courtois 1881). Attempting to reverse the effects of his first banking interventions and government borrowing, Napoleon I acted to increase state control over the Bank of France.

As a result, the law of 22 April 1806 established a triumvirate of a governor and two vice-governors, nominated by the chief of state (Emperor Napoleon I) to manage the Bank. This legislation extended banknote-issuance privileges for 25 years and doubled the Bank's equity to FF90 million (Sedillot 1979). As Courtois remarked, it was at this point that the Bank became a government institution supported by private individuals (Courtois 1881: 120). Mainly interested in conquest, Napoleon I had found an excuse to take over the Bank's management and grant precedence to 'war needs' over domestic trade. Courtois noted that the 'Emperor, who was stopped by no consideration when it came to supporting war, did not always take into account the caution needed for trade and the Bank itself'.[11] Napoleon's 1806 legislation paved the way for recurring business fluctuations and a new depression in 1811. The business cycle's institutional foundations had been laid for the next two centuries. Adding to financial instability, administrative obstacles prevented the creation of new banks for almost six decades (Nataf 1990). Commenting on this situation, Coquelin (1848) wrote:

> Two equally fatal principles prevailed in France from the beginning of the empire [of Napoleon I]; the first, that no bank can issue redeemable

11 Courtois is quoting Gautier (1839).

> banknotes, that is to say, engage in banking activity on a large scale without prior government authorization; the second, that each of these authorized institutions benefits from an exclusive privilege covering its area of operations. These two principles probably were enough to condemn France to eternal inferiority. Under such a system, it was impossible for credit to develop widely … Unfortunately, the French government used its discretionary power with rare parsimony. [Before 1848] only nine banking institutions existed in our departments … ten banks for all of France! This is the fruit of fifty years of study and thirty-three years of peace. Is this not a reason to groan over such a result? … To obtain the authorization to establish a bank, even for the largest and best located cities, was an arduous task, a Herculean effort … We think we are prudent in France and we are wrong; we are just meticulous and restrictive.

In Coquelin's view, these faults explain business fluctuations in France and its delayed economic development. He added (Coquelin 1848):

> Just as credit is rare in France, it is widespread in England … [Due to the multiplicity of credit institutions] productive capital there [in England] abounds.

Coquelin explained that credit financed capital goods, thus increasing English productivity. He concludes that 'one need not look elsewhere for the cause of the great industrial superiority of this country.' France's backward banking restrictions explain, to a large extent, its increasing economic lag behind Great Britain in the first half of the nineteenth century (Coquelin 1849: 371–89).[12] The contemporary focus on the competitive note issue feature must not hide the equity capital feature of these systems. Free banking systems are characterised by a high level of equity capital relatively to the balance sheet. Coquelin (1848) reports that the equity capital share in the balance sheet in Massachusetts (1803–63) was around 60 per cent and in Rhode Island over 70 per cent. Even the Banque de France had an equity capital share above 25 per cent during its early years (see Gentier 2000: 119–55; 2003). The high level of equity capital is one of the key differences with banking systems today, and it explains why banks under free banking are more immune to credit crunch and crisis.

12 To cure economic stagnation and business fluctuations, Coquelin explains 'that free banking would prove a certain remedy for all these evils' (p. 388).

Table 9.1 Issuing banks

Name	*Date of establishment*
Caisse des Comptes Courants I	29 June 1796
Caisse des Comptes Courants II	30 December 1798 (Merge with BDF in 1800)
Banque de France	6 January 1800
Caisse d'Escompte du Commerce	24 November 1797
Comptoir Commercial	12 December 1800
Banque Territoriale	18 August 1799
Caisse d'Escompte et de Commerce de Troyes	25 November 1801
Société Générale du Commerce de Rouen	17 February 1798

Table 9.2 Banques de sols

Name	*Date of establishment*
Factorie du Commerce (Paris)	22 November 1799
Caisse d'Échange des Monnaies (Paris)	
Camus et Compagnie (Rouen)	
François Ainé et Fils (Rouen)	
Bureau d'Échange de la Monnaie (Tours)	
Other towns Amiens, Saint Quentin, Troyes, Nantes	

Addendum (2023)

Due to incomplete sources, the number of operating banks of issue during the period is estimated to be 16, which covers two kinds of banks of issue. First, we have banks of issue that provide credit and issue large denomination notes (500 or 1,000 francs, 500 francs is equivalent to 100,000 euros or three years of wages for an unqualified woman). There were six of these banks in Paris in 1802 (Jacoud 1996: 102), among them the Banque de France. This type of bank also existed in Rouen or Troyes, and possibly in other town such as Lyon. Second, there is another type of issuing bank – called 'Banques de sols' – that was more numerous and found in plenty of towns (such as Amiens and Troyes). These banks issued small-denomination notes (10, 15, 20 francs), convertible in copper coins. Moreover, there were also deposit banks and credit banks that did not issue notes.[13]

13 This information is obtained from the very interesting work of Jacoud (1996).

10 FREE BANKING IN IRELAND

Howard Bodenhorn

Introduction

This chapter examines Ireland's experience with free banking. While some historians have criticised the banks for causing economic chaos in a largely agricultural economy, the evidence presented here shows that such was not the case. Banks, more than most other market institutions, attract a great deal of government interest. Banks, therefore, are as much a prisoner of their political as their economic environment. It was the legislative influences that differentiated the results of the two periods of free banking in Ireland. Lawrence White attributes the success of the Scottish free banking experience to minimal government interference and the presence of unlimited liability. If these are indeed the keys to success, it is not surprising that the second period of free banking in Ireland should rival the success of the Scottish. After 1824, restrictions on banking were repealed, except unlimited liability, and joint-stock banks were formed based on the Scottish mould. Failures were infrequent, losses were minimal – particularly when compared to the period between 1797 and 1820, which was characterised by restrictions like those placed on English country banks – and the country was allowed to develop a system of nationally branched banks that was to form the core of the Irish banking industry until the 1960s.

Free banking gone awry? The Irish experience 1797–1820

The Bank of Ireland was created by Act of the Irish Parliament in May 1783 and opened for business in June of that year. The wording of the Act followed that of the Act forming the Bank of England 89 years earlier. The charter gave the Bank of Ireland a 'semi-monopoly' privilege in that no other body exceeding six partners could legally issue banknotes. In return for this privilege the full amount of the paid-up capital of £600,000 Irish was lodged with the government as a permanent loan with interest at 4 per cent annually (Barrow 1975: 2–3). The Act also limited the amount of the bank's borrowing to the amount of its paid-up capital. Any judgement creditor of the bank could receive payment from the Exchequer with the amount deducted from the annual interest payment (Barrow 1975: 3).[1] The lodgement with the government of its capital was then a security fund to meet creditors' demand should the bank default.[2]

Although the note issue privilege provided the ammunition for critics of the bank, it was not the legislation that most impeded the development of stable and competitive banking in Ireland. The provision did not forbid all banks; it only forbade those with more than six partners. This ultimately led to a multiplicity of poorly capitalised 'private' banks that were ill-prepared to meet their obligations when the frequent crises came.

An Act of 1721 made banking in Ireland an unlimited liability enterprise. It provided that, upon dissolution, a banker's real and personal estate be first liable for the debts of the bank, even if there was a prior encumbrance on those assets. The legislation appears to have been a response to bankers deeding their assets to family members or business partners just before the bank's dissolution. This bankruptcy provision did little to afford a bank's creditors any real security. Special Acts of Parliament were required for dissolution of a defaulting bank with the Irish House of Commons acting as the Bankruptcy Court (Hall 1949: 5). The winding up of one bank – Burton's Bank – lasted 25 years, and there are reports that another dissolution process lasted nearly 50 years (Hall 1949: 10). As a result, any assets of the bank or its partners were generally eaten up by legal fees and left little, if any, indemnity for creditors. The terms of the charter of the Bank of Ireland were designed to avoid this problem.

Following a pattern of crisis-induced legislation, the next Act aimed specifically at banks was passed in 1755. The crisis of 1754–55 brought down three large and respected private banks in Dublin. The failures were due not so much to bad banking practices as to losses by their partners in trading ventures (see, for example, Simpson 1975: 1).[3] The deficit of one bank

1 A judgement creditor is one who has obtained the relief of the courts through suit in securing payment of a debt.

2 This feature is similar in form to the type of security used by banking authorities to secure the debts of 'free' banks in several of the US states during the period 1838–63. See Rockoff (1974).

3 Alternatively, Hall (1949) attributes two of the failures to the partners absconding with whatever assets that remained.

– Wilcox & Dawson – was £42,500, including what remained of the personal assets of the partners: and it is thought that the accounts of the other failed banks were similar. The Irish Parliament appointed a committee to investigate the causes of the failures and the committee concluded that the failures were due to inadequate capitalisation (Hall 1949: 9–10). Parliament, however, responded with an Act that forbade the combination of merchant trade and banking (Simpson 1975: 2). All partners in a banking partnership were to be bankers only. By forbidding merchants from banking, Parliament had effectively barred from the business the people who would most benefit from a stable banking system and the people with the wherewithal to form well-capitalised banks. The Act seemingly deterred merchants from establishing banks; only two new banks were formed in Dublin between 1760 and 1783 (Hall 1949: 13).

The first period of Irish free banking began in 1797. From about 1790 onwards the Bank of England had experienced a constant drain on its reserves. The harvests of the 1790s were generally poor, which forced importation of foodstuffs. At the same time, William Pitt pushed a bill through Parliament that allowed the Bank of England to advance, without limit, any sum required by the government. The Directors opposed the legislation but dared not refuse any government drafts, and by 1797 the Bank had made advances to the government of £8,075,400. During the same period, Britain had also been sending subsidies to its Continental allies. The effect of these actions was to turn the exchanges against London until the specie point was reached in May 1795 (Andréades 1966: 187–94). In August 1795 the drain intensified when France restored the gold standard; gold continued to flow out until the exchanges stabilised in the early months of 1796. But this did not ease the tension in the money market. With rumours of an imminent French invasion circulating, noteholders of all banks exchanged notes for specie. The country banks of England accelerated their withdrawals of specie from the Bank of England so that even with gold flowing into England with the favourable exchange, the country was quickly absorbing it. The Bank of England's reserves continued to decline. The final stroke occurred in February 1797. A local rumour of a French invasion caused a run on the banks in Newcastle on 18 February. This news reached London on the same day that news that the French fleet had been spotted off the south coast of England. Then, on 25 February, French forces landed on the Welsh coast (Hall 1949: 78–79). Although they were quickly captured and posed no real threat, the money markets collapsed, and 3 per cent Consols sold at 51 (Andréades 1966: 197).[4]

The Directors of the Bank of England asked the government for assistance. On 26 February, the Privy Council ordered the Bank of England to suspend cash payments.[5] Similar events were occurring in Ireland as the Bank of Ireland saw its reserves dwindle as the public hoarded specie. News of the suspension travelled quickly to Dublin, and on 2 March 1797 the Irish Privy Council ordered the Bank of Ireland likewise to suspend specie payments. Work on the Irish Restriction Act began immediately and on 3 May it received Royal Assent. The provisions of the Act allowed the Bank of Ireland to suspend specie payments for as long as the Bank of England was suspended, plus an additional three months following resumption by the Bank of England. It also stated that the courts were to regard payment in Bank of Ireland notes as payment in cash. The Act stopped short, however, of giving the notes full legal tender status. If suit was brought by a party not willing to accept the notes, proceedings could be stayed until resumption, but under no circumstances was the Bank of Ireland to have costs imposed against it in such suits.

The result of the Act was that private bankers were given the same privilege, which was fully authorised by an Act of Parliament in 1799. The Act allowed private banks to issue notes of less than five guineas so long as such notes were payable in Bank of Ireland notes. In essence, Bank of Ireland notes were made legal reserves of the private banks. Moreover, the acquisition of these reserves became easier as the Bank of Ireland's circulation expanded. In March 1797, the Bank's circulation was £560,000. By March of 1798 the circulation had increased to £926,200, and by March 1802 it had reached £2,263,400.

What followed was a fourfold increase in the number of private banks. In 1797 there were 11 private banks distributed throughout the country, though not all issued their own notes. By January 1803 the number of private banks of issue stood at 30; a year later, there was a total of 40 (Fetter 1955: 8).[6]

4 For a more complete account of the events leading up to the suspension, see part IV, ch. II and III, of Andréades (1966).

5 The full text of the Order is reprinted in Hall (1949: 79). The details in this section rely on Hall, especially pp. 79–82; see also his Appendix E.

6 Barrow (1975: 14) reports the total number of private banks (both issuing and non-issuing) in 1803 at 41; Hall (1949: 126) gives the total in 1804 as 49.

Although exact circulation figures fail to survive for the private banks of this period we can piece together some idea of the increase in currency during the Restriction period. The 1804 Committee published the stamp duties paid on the various denomination notes from 1800 to 1804. Notes under three guineas required a tax stamp of 1½d per note, notes less than £10 required a 3d stamp, and notes less than £50 required a 4d stamp. The figures are reported in Table 10.1 and Table 10.2. In interpreting these figures two considerations must be kept in mind. First, the values in the tables do not represent the value of the notes, they are simply the number of notes paying the stamp tax.[7] Second, the values may not be representative of the actual circulation of the banks. Since a bank could expect to have its notes returned for redemption or deposit, the total number of notes stamped was not in circulation at all times. Additionally, the banks were not required to pay the tax annually so that notes put into circulation in previous years may well have continued to circulate as new ones were issued.

Table 10.1 Number of notes paying duty by bank, year end March 1800

Bank name	*City*	*1½d*	*3d*	*4d*
Finlay & Co.	Dublin	—	15,413	18,048
Lighton & Co.	Dublin	18,300	72,800	46,800
Beresford & Co.	Dublin	5,200	54,200	20,100
Roberts & Co.	Cork	42,100	10,900	8,900
Cotter & Co.	Cork	39,012	200	2,700
Newport & Co.	Waterford	9,100	12,000	3,650
Mansell & Co.	Limerick	16,000	9,500	3,300
Rial & Co.	Clonmel	2,500	6,500	—
Redmond & Co.	Wexford	2,000	1,598	—
Woodcock & Co.	Enniscorthy	400	1,200	200
O'Neile & Co.	Waterford	13,500	14,050	550
Totals		134,612	198,361	104,248

Source: Fetter (1955: Appendix D, p. 147).

If representative, these figures exhibit not only the proliferation of banks, but also the proliferation of 'small' notes. In 1804 the distribution between notes of less than three guineas, less than £10 and less than £50 showed a slight preference for the 'medium' denominations. By 1804,

7 For example, a £1 note would bear the same stamp as a £3 note.

however, the preference for 'small' notes is apparent. Stamp taxes were paid on over a million new small notes, while the number of large notes fell to 90,000. Fully three quarters of these banks registered no new large notes. For later in the period, some scattered circulation figures are available. A contemporary observer estimated the circulation of Malcomson's Bank in Lurgan at £170,000 in 1808; and the average circulation of the private banks in Belfast at £225,000 in 1810. Ollerenshaw, however, believes these to be underestimates. He found the circulation of a single bank was £354,000 in 1812; it reached its peak in 1819 at £412,000 (Ollerenshaw 1987: 8).

The effect of this monetary expansion was inflation. Although no reliable price indices are available for Ireland in this period, the extent of the inflation can be seen by the movements in the Irish/English currency exchange rate. Until 1826 Ireland had a distinct currency. The official Irish/English exchange rate was £108 Irish 6s 8d for £100 English – that is 13 Irish pounds equalled 12 English pounds – but the rate was allowed to float. In March 1797 the exchange rate was £105–£106 Irish for £100 English. By April 1801 the exchange rate had risen to £111–£113 Irish for £100 English; and exchange on Dublin condition continued to decline until in January 1804 when the rate reached £117–£118 Irish to £100 English (Fetter 1955: 8).

The rising price level may not have been due to the proliferation of the private banks, though some contemporary observers placed the blame on them. In Lawrence White's model of free banking (1984b: 1–19), a bank in the short term may be able to issue an excessive quantity of notes, but it will find its circulation decision untenable in the long term. When individuals find themselves holding more of a bank's notes than they require, they will redeem their excess holdings directly at the bank of issue, by depositing the notes with their bank of choice, or by passing the notes to other individuals. The offending bank will sooner or later be forced to reduce its note issue as its gold reserves are depleted. But the Bank of Ireland had a monopoly in irredeemable reserves and was increasing the stock of those reserves. In even the simplest money multiplier model, an injection of reserves or high-powered money will lead to a proportional money expansion, given a fractional-reserve system. Such was the case with Ireland. The private banks were simply responding rationally to forces that were completely exogenous to them. The system reacted no differently than it would have had the injection been an inflow of gold.

Table 10.2 Number of notes paying duty by bank, year end January 1804

Bank Name	*City*	*1½d*	*3d*	*4d*
Finlay & Co.	Dublin	5,000	36,500	26,200
Lighton & Co.	Dublin	43,455	60,500	23,100
Beresford & Co.	Dublin	42,500	117,300	29,500
Roberts & Co.	Cork	128,000	3,000	—
Cotter & Co.	Cork	146,800	1,200	—
Roach & Co.	Cork	35,004	2,075	—
Pike & Co.	Cork	64,400	—	100
Mansell & Co.	Limerick	7,453	—	—
Roach & Co.	Limerick	21,131	—	—
Rial & Co.	Clonmel	36,300	5,300	—
Watson & Co.	Clonmel	34,400	1,500	—
Redmond & Co.	Wexford	1,800	1,900	—
Codd & Co.	Wexford	4,000	—	—
Hatchell & Co.	Wexford	5,400	1,700	—
Sparrow & Co.	Enniscorthy	13,000	—	—
Redmond & Co.	Enniscorthy	5,400	—	—
Codd & Co.	Enniscorthy	22,500	—	—
Williams & Co.	Kilkenny	4,000	500	—
Loughlin & Co.	Kilkenny	1,000	1,000	—
Anderson & Co.	Fermoy	23,900	—	—
Rawson & Co.	Athy	6,000	—	—
Delacourt & Co.	Mallow	51,600	—	2,000
Bernard & Co.	Birr	41,500	2,496	1,800
Herron & Co.	Callan	15,825	—	—
Giles & Co.	Youghall	13,000	1,000	—
Scully & Co.	Tipperary	14,700	800	—
Manning & Co.	Rathdrum	800	—	—
Barrow & Co.	Dungarvan	1,800	—	—
Tallow & Co.	Dungarven	509	—	—
Joyce & Co.	Galway	68,632	—	—
Blacker & Co.	Loughlin Bridge	8,587	—	—
Rossister & Co.	Ross	3,400	—	—
Cliff & Co.	Ross	21,800	5,400	400
Talbot & Co.	Malahide	24,938	—	—
Foley & Co.	Lismore	1,200	—	—

Table 10.2 (*cont.*)

Trench & Co.	Tuam	67,703	1,900	—
Perren & Co	Wicklow	1,800	—	—
Evans & Co.	Charleville	32,221	400	1,500
Langrishe & Co.	Thomastown	24,240	630	115
Bennett & Co.	Carlow	26,219	5,000	2,030
Totals		1,110,217	256,801	90,265

Source: Fetter (1955: Appendix H, p. 149).

Concern over the deteriorating exchange rate prompted the British Parliament to appoint a Committee to investigate its causes. The Committee placed the blame on the Irish Bank Restriction Act, which had allowed the Bank of Ireland to increase its issues without a corresponding increase in its reserves. In fact the reserves had been continually falling. The reserve ratio in January 1808 was 31 per cent; by January 1814 it had fallen to 17 per cent (see Bodenhorn 1989: 8).[8] In view of the Bank's declining reserves, the Committee's recommendations were that 'it is incumbent on the Directors of the Bank of Ireland … to limit their paper at all times … and it may be material also to assist their endeavours by a diminution of the issue of paper from private bankers'.[9] The Bank agreed to comply with the Committee's recommendations, but it failed to do so. In March 1810 the circulation of the Bank was £2,291,300. It continued a slow increase until by March 1813 the circulation reached £3,185,400 (Hall 1949: 393).

A crash came when specie payments were resumed in 1820. In 1804 there were 40 private banks of issue. Through failures and entry, 31 were in operation in 1819. Of the failures that occurred before 1820, some were quite spectacular. The failure of Cotter & Kellet & Co. in Cork resulted in an estimated loss to the public of £210,000 in 1807. But the failure of Colcough's Bank in New Ross enjoyed the most public attention. Upon failure, it was found that the bank had liabilities of £200,000, with only £4,000 of invested capital. Despite these celebrated failures, most of the banks that failed before 1819–20 went quietly. Upon the voluntary liquidation of Beresford's Bank in 1810, the creditors were paid in full (Hall 1949: 124–26).

8 Concern over the reserve ratio seems incongruous in a period of inconvertibility. But the Committee felt that the Bank should maintain some semblance of 'good' banking principles during the suspension so that resumption could take place without severe shocks or complications

9 1810 Committee, quoted in Simpson (1975: 5).

The years 1819–20 brought a severe recession to Ireland. The causes were threefold. With the end of the Napoleonic War, the government had decreased its spending – particularly as most of the British Army and Navy returned home. To this was added the decreased British demand for Irish foodstuffs at the war's end; and with it came the resumption of specie payments. Runs on banks immediately after resumption were widespread as the public wanted to convert its notes into gold. The Bank of Ireland could offer little help as it too was forced to import gold from England to replenish is reserves as it saw its own notes being presented in large numbers for payment in specie.

Failures were widespread. Of the 31 private banks operating in 1819, only 15 survived at the end of 1820, and of those that did survive, all – except for those in Dublin and Belfast – were forced to suspend specie payments for various periods. The exact degree of losses to the public from these failures is impossible to determine. One contemporary observer, however, estimated the total losses due to failures from the whole of the Restriction era at £20 million (Hardcastle 1843: 367).

The second free banking period, 1824–45

The crisis of 1820 sparked agitation for reform. Critics of Anglo-Irish banking concentrated their efforts on the repeal of the Act of 1756 and the abolition of the Bank of Ireland's note issue privilege. These reformers were impressed with the stability of the Scottish banks which popular belief attributed to a lack of restrictive legislation, particularly a lack of anything resembling the six-partner rule.

There was strong pressure for reform in both England and Ireland, but there was also strong pressure, primarily from the Bank of England, not to alter the existing machinery.[10] The authorities determined that something needed to be done and decided to experiment first with Ireland (Barrow 1975: 61).[11] In February 1821 discussions were opened with the Bank of Ireland regarding the abrogation of their note issue privilege. The current and ex-governor of the Bank negotiated for the Bank, during which they established and maintained close contact with officials from the Bank of England who took a keen interest in the negotiations as this would set a precedent for the

10 Broz and Grossman (2004) discuss how the Bank of England was forced to renegotiate its charter on nine separate occasions between 1694 and 1844, usually in response to the Crown's need for resources brought about by its military operations.

11 This is Barrow's impression from the course of events, though it is not based on direct evidence.

restriction of their own privileges (Hall 1949: 134–35). In May 1821 agreement was reached whereby the Bank of Ireland's monopoly as a bank of issue with more than six partners was restricted to a radius of 50 Irish miles (65 English miles) from Dublin. In return the Bank was authorised to increase its capital by £500,000. This brought the total paid-up capital to £3 million Irish. However, the government again required that the increase in capital be lodged with the Treasury as a loan at the rate of 4 per cent annually (Barrow 1975: 62). The Act was passed and received Royal Assent in July of 1821.

Pathbreaking as the 1821 Act was, it was to remain a dead letter until the restrictive Act of 1754 was lifted. Further, the wording of the 1821 Act was ambiguous. It allowed any number of persons 'in Ireland' to form themselves into a partnership for the business of banking. When pushed by the potential entry of the first 'joint-stock' bank – the Provincial – whose share subscription opened in 1824, primarily in London, the Bank of Ireland interpreted this provision to mean that shareholders must be residents of Ireland *and* reside outside the 50-mile limit (Barrow 1975: 64, 76). Not only did this disallow any bank capital to flow from England to Ireland, but it also pre-empted potential banks from soliciting capital from the most prosperous part of Ireland, around Dublin.

For three years no new banks were formed under the law. The cause for repealing the offending clauses was taken up in the House of Commons by Sir Henry Parnell on behalf of several merchants and bankers in Belfast (see Ollerenshaw 1987: 10).[12] The result was the Irish Banking Act passed in 1824. This Act repealed the residency requirement of the 1821 Act and allowed any citizen of the UK to be a shareholder; it repealed the ban on merchants being partners or shareholders; and it allowed the names of shareholders to be registered in the Court of Chancery instead of appearing on all notes (see Ollerenshaw 1987: 10; Barrow 1975: 65–66).[13]

A week after the Act of 1824 became law, it was announced in Belfast that a joint-stock bank was to be formed as quickly as possible. This new bank, the Northern, was to take over the business of Montgomery's, a private bank, as a going concern. Soon afterwards, the Provincial Bank, whose capital

12 Parnell's (1827) book *Observations on Paper Money, Banking and Overtrading* is considered a classic defence of free banking, particularly that in the Scottish tradition.

13 Before this Act the names of all partners or shareholders had to appear on all evidences of debt, including banknotes. During the period of the six-partner rule, this posed few problems, but with joint-stock companies with several hundred partners this rule would have made the use of banknotes impossible.

was raised in London, also entered the alliance. There was not, however, a headlong rush into the business of banking following the passage of the 1824 Act (see Table 10.3).

Table 10.3 Chartered and joint-stock banks in Ireland: dates of commencement and closure

Bank	*Commencement*	*Closure*	*Cause*
Bank of Ireland	1783		
Hibernian	1825		
Provincial Bank	1825		
Northern Banking Co.	1825		
Belfast Banking Co.	1827		
Agricultural and Commercial	1834	1836	Failed
National Bank	1835		
Limerick National Bank	1835	1839 (?)	
Clonmel National Bank	1836	1856	Merged with National
Carrick-on-Suir National	1836	1856	Merged with National
Waterford National Bank	1836	1839 (?)	
Wexford and Enniscorthy	1836	1839 (?)	
Tipperary National Bank	1836	1856	Failed
Tralee National Bank	1836	1839 (?)	
Ulster Banking Co.	1836		
Royal Bank of Ireland	1836		
Southern Bank of Ireland	1837	1839 (?)	
London & Dublin	1842	1857	

Note: The question mark designates some doubt on the actual date of closure. The Committee Report of 1857 shows six joint-stock banks closing in 1839 without naming them. The five here seem the most likely as they do not appear in any intervening or later reports.

Sources: Commencement dates, 1837 Committee; closure dates, 1857 Committee, Barrow (1975); cause, Ollerenshaw (1987: 32).

The opening of the Northern provoked little response from the Bank of Ireland. The Northern's affairs were primarily tied up with the developing linen trade of Ulster, an area and a business with which the Bank of Ireland seemed little concerned. The entry of the Provincial, however, evoked quite a different response. The prospectus for the Irish Provincial Bank Company stated its purpose was to open 'establishments for business in the principal towns of Ireland which are distant over 50 miles from Dublin' (Barrow 1975: 75). The Provincial was to be set up along Scottish lines with the bank developing an extensive network of branches each of which would issue notes, open cash credit accounts (overdraft accounts), and pay interest on deposits received. To implement the plan the Provincial imported its branch managers and accountants from Scotland. However, since these Scots would initially know little of local business conditions each branch was to have a board of supervisors consisting of between three and five local merchants who would pass initial judgement on the extent of discounts appropriate for merchants presenting their bills.[14] The branch managers were allowed discretion in the discounting of bills and advancing of credits up to £1,000 per individual, but any amount beyond this was to be first approved by the Board in London.[15]

The opening of the Provincial was to change radically the face of Irish banking. It meant that the Bank of Ireland had to face true competitive pressure for the first time. The announcement of the Provincial's intention to open branches throughout the country prompted the Bank of Ireland into action. For 40 years, the Bank of Ireland had refused to open branches despite numerous petitions to do so. The Bank's managers and directors had claimed that branches were difficult to control and that the country was well served by the system of private banks. But just 11 days after the announcement by the Provincial that its first branch would be opened in Cork, the Directors of the Bank of Ireland met to discuss the expediency of opening country agents (Barrow 1975: 85).

A fierce rivalry developed between the two banks from the day the Provincial announced its intentions. The Bank of Ireland quickly formed agencies in the same towns the Provincial had selected for its branch operations. In two cases, the Bank of Ireland's agencies were opened before the opening of the Provincial's branches. The Bank of Ireland had good reason for insistence that its branches maintained the title of 'agency'. According to law, notes were redeemable in the place where they had been issued. The Bank of Ireland printed its notes in such a way that they were redeemable only in Dublin. The Provincial received many of these notes in the course of business, and by this device, it was forced to transport the notes to Dublin for redemption, then transport the gold back to the respective branches. Alternatively, the Bank of Ireland could present the Provincial's notes at the branch of issue. The Provincial experienced several runs on its notes in its early days and attributed some of them to practices by the Bank of Ireland.

14 1826 Committee, evidence of James Marshall, p. 90.

15 Ibid., p. 90.

The Provincial responded to this by petitioning Parliament for a law requiring that notes be redeemable at the branch of issue. The law was passed in 1829 causing some inconvenience to the Bank of Ireland as it was now forced to bear the cost of holding and insuring reserves at each of its agencies. It had little effect on the Provincial as this had been its practice throughout. The law did, however, adversely effect the Northern Bank as it too had made all its notes payable at its main office in Belfast (see Simpson 1975: 34–37).

Despite this political setback and all its protestations, the Bank seems not to have suffered inordinately from the new competition. Its dividends remained at 10 per cent annually through 1829 after which they were decreased to 9 per cent until 1835 (see Table 10.4). Its profitability, however, had been diminished slightly. The Old Bank's rate of return on net worth in 1824 fell below 7 per cent for the first time. It recovered to slightly more than 7 per cent in 1825, but then again fell to between 6.5 and 7 per cent, where it stabilised throughout the 1830s. As Table 10.4 shows, despite the loss of some of its monopoly privileges, the Bank of Ireland continued to outperform the entrants who paid annual dividends of only 4 or 5 per cent until the mid 1830s.

The real wave of bank expansion in Ireland was not to begin, however, until the late 1830s. As Table 10.3 shows, only four new 'joint-stock' banks were formed between 1824 and 1827.[16] The rapid growth of banking did not occur until the mid 1830s with the entry of 12 new banking companies. This slow growth of joint-stock banks cannot be attributed to the growth of private banks in their place. Barrow (1975: 106–8) believes that only five 'private' banks were opened between 1829 and 1833. Simpson (1957: 33) argues, as well, that the rise of well-branched joint-stock banks spelled the end to private banking in the countryside of Ireland. In 1835 the only private banks still in operation were located in Dublin.

One of the arguments against free banking is that competitive pressure induces bankers to issue notes beyond their capacity to redeem them. A cursory glance at Table 10.3 might give the impression that such was the case with banking expansion in the 1830s. Twelve banks entered between

16 Barrow points out that the term 'joint-stock' is a misnomer for the type of banks formed during this period. The banks were still little more than common law partnerships with the stockholders still having unlimited liability. The only resemblance they had to a modern corporation was that they could sue and be sued in the name of their officers instead of having to name all the partners in a suit.

1834 and 1837, but only six of them continued to operate in 1845. Most of the banks closed quietly. Of the five that closed in 1839, they dissolved for reasons other than 'failure'.[17] But such do not make the stories of legend. It seems that all countries that have experimented with free banking have experienced a celebrated failure or series of failures on which critics can focus their attention. Scotland had the infamous collapse of the Ayr Bank (see chapter 9). Ireland had the Agricultural and Commercial.

Table 10.4 Irish bank dividends, 1820–40 (dividends as percentage of paid-up capital)

Year	*Bank of Ireland*	*Northern Bank*	*Ulster Bank*	*Belfast Bank*	*Provincial Bank*	*Hibernian Bank*
1820	10					
1821	10					
1822	10					
1823	10					
1824	10					
1825	10	5				
1826	10	5			4	4
1827	10	10		5	4	4
1828	10	5		5	4	4
1829	10	5		5	4	4
1830	9	5		5	4	4
1831	9	5		5	5	4
1832	9	9		5	5	4
1833	9	5		5	6	4
1834	9	5		5	7	4
1835	9	6		5	8	4
1836	8.5	7		6	8	4
1837	8	8	5	7	8	4
1838	8	9	6	7	8	4
1839	8	10	6.5	7	8	4
1840	8	10	7	7	8	4

Sources: 1837 Committee, Appendix; Hardcastle (1843); Hall (1949) Appendix G, p. 399.

17 The 1857 Committee listed banks as 'Relinquished from Failure' and 'Relinquished from Other Causes'. None of the 1839 closings was from failure in the sense of insolvent, but the Committee Report does not define precisely the meanings of the terms.

The Agricultural and Commercial was doomed virtually from its inception. The promoter of the bank was one Thomas Mooney, who happened to have a prominent and wealthy namesake in Dublin. The prospectus also carried the name James Chambers, but it was not the respected Director of the Bank of Ireland (Simpson 1975: 48). The prospectus did not carry with it the addresses of the promoters and made no attempt to distinguish these men from their more well-known namesakes.[18]

Thomas Mooney's idea was different from most other bankers of his day. With unlimited liability, the reputation of a bank lay primarily in the reputation and public trust of its shareholders. Most banks, therefore, wished to be selective in who held their shares – a privilege granted to them since most share offerings were oversubscribed.[19] Besides, most shares sold for £100, which typically pre-empted 'widows and orphans' from ownership. The Agricultural's prospectus, however, proposed one million shares of £1 each. With the success of previous joint-stock banks, the possibility of owning shares in a bank invited investments by small shareholders.

It should have been obvious from the outset that the Agricultural Bank was destined to fail. Banking expertise was scarce in the 1830s, but for the Agricultural it was almost non-existent. Only one member of the consulting committee had any bank experience, and that was for the Hibernian, which was not a bank of issue. No general manager was ever appointed, and the branch supervisor was a Scot with a chequered career (Barrow 1975: 113). The necessary qualification for becoming a branch manager was that you owned more shares than anyone else in town (Simpson 1975: 49). The practices of the bank were also less than sound. The bank paid a premium on Bank of Ireland notes to obtain specie and get their own notes into circulation, and it discounted liberally. Its time came quickly as it could not redeem its notes and stopped payment in 1836.

With the collapse of the Agricultural came a run on the other banks. Though the majority were well managed, their reserves were quickly depleted and most turned to the Bank of Ireland for help. The Old Bank appears to have softened its stance toward the joint-stock banks by this time as it rediscounted applicable commercial paper for all but one of the applicants. The Provincial and the Northern never applied for assistance. The Belfast

18 Barrow (1975: 111–12) argues that there was no deliberate attempt to confuse the subscribers, but the coincidence seems a little too remarkable to dismiss the possibility.

19 For more on bank shareholders and shareholdings in Britain and Ireland, see Freeman et al. (2012).

Bank received £103,000, the Ulster received £60,000 and the National received £42,600 and although it was granted a further allowance of £70,000, it was never used (Barrow 1975: 142–43). This was the beginning of the Bank of Ireland's recognition as its role as a lender of last resort.

Though much celebrated, the collapse of the Agricultural Bank did not produce devastation throughout the economy. The Auditors' Report on the Agricultural is included in the minutes of the 1857 Committee (Barrow 1975: 116–17). Although they were unable to decipher completely the poorly kept records, they estimated that liabilities exceeded assets by only £33,638. Add to this the losses from the Provident Bank – a bank Mooney built on the ruins of the Agricultural that also quickly collapsed – which on dissolution was in deficit of only £14,000, and it is easily seen that the losses to creditors were small when compared to the losses sustained during the crisis of 1820.

Table 10.5 Banks of Ireland: number of shareholders, paid-up capital, branches

Bank	*Number of shareholders*	*Paid-up capital (£)*	*Number of branches*
Bank of Ireland	N/A	3,000,000	22
Northern Bank	186	122,275	10
Provincial Bank	813	500,000	23
Hibernian Bank	N/A	250,000	0
Belfast Bank	270	125,000	20
Agricultural & Commercial	4,114	352,789	46
National Bank	1,140	245,575	14
Ulster Bank	590	204,325	11
Royal Bank	360	199,275	0

Sources: Column 2: Ollerenshaw (1987: 32); Columns 3–4: 1837 Committee, Appendix I.

By 1840, Ireland had developed a stable system of well-capitalised, broadly based branch banks. Ireland, then, like Scotland provides evidence that freely competitive banking need not be thought of as inherently unstable. Granted, closures and failures occurred but exit is as much a part of the competitive process as entry. Schumpeter argued that the problem of capitalism is not how the system administers existing structures, rather how it creates and destroys them. The small and under-capitalised private banks were replaced by better-capitalised joint-stock banks. Table 10.5

shows that the Irish joint-stock system compared favourably with both the prior system of private banks that were allowed at most six partners, and often had as few as two; and with the much-praised system prevailing in Scotland.[20] Competitive pressure forced, and superior capital enabled, the banks to establish a system of branch networks that allowed for geographic portfolio diversification which was impossible under a system of locally based private banks.

When the Bank of Ireland had held its semi-monopoly privileges, the popular criticism was that it served the government and conferred little benefit on the commercial and merchant classes. Evidence from the semi-annual balance sheets of the Bank of Ireland suggests that these accusations were not groundless. In the accounts of the Bank of Ireland, private debt is defined as bills discounted and loans to individuals and firms; public debt is holdings of government securities. If one looks at the ratio of private to total debt held by the Bank of Ireland, the trend is decidedly downward during the Restriction period. In 1808 the ratio stood at 85 per cent (meaning that 85 per cent of all debt was issued to individuals or firms), but by 1822 the ratio had reached its trough at 15 per cent.[21] This means that the bank was discounting ever fewer commercial bills. However, with the advent of the joint-stock banks in 1824, the trend is quickly upward with a rough levelling off through the remainder of the period at about 40 to 50 per cent.[22] Much the same story can be told from looking at the denomination of note issues of the Bank of Ireland. Records of the Bank classify notes issued into those less than £5 and those £5 and greater. The ratio of small notes (less than £5) to total note issue during the Restriction period was variable but averaged about 25 per cent. But with the advent of the joint-stock banks, it increased from 28 per cent in 1824 to 39 per cent in 1828; thereafter, following a slow increase, it reached 48 per cent in 1844. Small-denomination notes were important for merchants and linen exporters who often travelled from town to town buying small webs of linen or small quantities of produce from local weavers or growers. Most of these transactions were in small amounts, usually £5 and less, and since notes were more easily carried than specie most of

20 For a comparison with Scotland, see Lawrence White (1984b: 34–37).

21 For a more detailed discussion of this, see Bodenhorn (1989), especially p. 20 and figure 3.

22 An alternative explanation may be that with the end of the Napoleonic Wars the government was offering fewer securities to fund its purchases, and the bank had to look to other sources for employment of its funds.

these purchases were made with banknotes.[23] Therefore, as competitive pressures forced the Bank of Ireland to deal more with the public and less in government securities, it found it increasingly necessary to supply smaller-denomination notes.

Small notes came under attack in 1826. In England the bank crisis of 1825, culminating in the failure of many of the small country banks was blamed on the overissue of small notes instead of the restrictions on capital. The House of Commons proposed to outlaw the issue of such notes not only in England, but in Ireland and Scotland as well. A committee was formed to investigate the proposal. The Banks of Ireland and Scotland banded together to oppose the measure. Their common front was effective as the eventual Act included only England and Wales, and left Scotland and Ireland free to continue with the issue of small notes. The most common note issues of the joint-stock banks were those of £1, £1 5s, £1 10s, £1 15s, £2 and very few over.[24] These issues were appropriate when transactions were small, as they were in the market towns of Ireland. Table 10.6 shows the proportion of small notes in circulation in Ireland and Scotland from 1845 to 1856. While this period is after the years under consideration here, it is doubtful whether a drastic change of regime would have taken place given the testimony of the officials.[25] What is striking is the exceedingly high proportion of small notes in Scotland. This is further evidence that the issue of small notes and bank stability are not mutually exclusive.

The final positive aspect of competitive banking to be considered is that of interest rates. Evidence from the 1837 Committee shows that competition had narrowed the difference between lending and borrowing rates. Throughout its history, the Bank of Ireland had cited an ancient and obscure statute to defend its practice of not paying interest on deposits. The joint-stock banks, however, believed that statute inapplicable to deposits.[26] Table 10.7 shows the rates paid on deposits by the banks in 1837. The average rate was 2 to 3 per cent depending on the term of the deposit. In testimony given before the 1826 Committee, the head accountant of the Provincial testified that his bank charged 5 per cent on discounts and on credit balances

23 1826 Committee, testimony of James Marshall, Appendix 17, p. 92.

24 Ibid.

25 Unfortunately, the joint-stock banks did not have to make public their issues until the Acts of 1844 and 1845 required them to do so. Therefore, we have little information before that period.

26 Apparently, government prosecutors felt the same as no suits were ever brought against the banks that paid interest.

in overdraft accounts but the rate moved with movements in the Bank of Ireland and Bank of England rates.[27] In March 1837, the Bank of Ireland's rate on Irish bills was 5 per cent, and 4 per cent on English bills. With deposits being paid 2 or 3 per cent, this gave the banks a narrow margin. Yet they found operation profitable as evidenced by increasing dividends through the late 1830s (see Table 10.4).

Table 10.6 Small notes as a percentage of all notes in circulation: Scotland and Ireland 1845–56

Year	*Scotland*	*Ireland*
1845	73	58
1846	68	58
1847	71	52
1848	68	51
1849	69	53
1850	68	55
1851	68	56
1852	65	58
1853	66	56
1854	64	55
1855	65	56
1856	66	54

Source: 1857 Committee.

Free banking ended in Ireland, as it did in Scotland, in 1845. In 1844 Parliament passed an Act which restricted the issue of Bank of England notes to the amount of their holdings of government securities and specie not to exceed £14 million. Any amount over this limit was to be secured pound-for-pound by specie reserves. The Bank Charter Act did not apply directly to Ireland, but it set the stage for the passage of the Irish Banking Act of 1845. This Act restricted the circulation of notes to only those banks that were presently banks of issue. It also stipulated that future circulations of each bank was not to exceed the average circulation of the 12 weeks preceding passage of the Act. Any amount of circulation above that average had to be secured by equal holdings of specie. In reality, the Act had little effect on the money supply of Ireland, as the banks typically circulated less than their

27 1826 Committee, testimony of James Marshall, p. 91.

allotted amount. It effectively froze, however, the size distribution of the banks for the remainder of the century.

Table 10.7 Rates paid on deposits: 1837

Bank	%
Bank of Ireland	0
Northern Bank	2–3
Provincial	1½–2
Hibernian	N/A
Belfast Bank	2½–3
Agricultural	2–3
National Bank	2–3
Ulster Bank	3
Royal Bank	2½–3

Source: 1837 Committee, Appendix I.

Conclusions

In summarising the Scottish system of free banking, Lawrence White claimed the system succeeded because 'there were many competing banks; most of them were well capitalized ... none were disproportionately large; all but a few were extensively branched ... [and] all offered a narrow spread between deposit and discount rates of interest' (White 1984b: 34). The second period of free banking in Ireland produced much the same results. It can be argued that the Bank of Ireland held a degree of influence by reason of its size, but the other banks were able to compete effectively. By abolishing the six partner rule, Ireland was allowed to develop a system of stable, nationally branched banks. Although failures did occur in this period, they were in no way as disastrous as those that came before. Ireland thus provides additional evidence that free banking is a tenable system when it operates free of restrictions and government interference.

11 COMPETITIVE NOTE ISSUE IN ITALY, 1860–93

Alberto Mingardi

Introduction

Italy became a nation state in the 1860s. The country had been divided into smaller principalities and city states virtually since the fall of the Roman Empire. While the number of autonomous political units declined after the Renaissance, by the eve of unification the country was still divided into seven independent realms, one of which (the Regno Lombardo-Veneto) was part of the Austrian Empire. This history of pluralism has impacted the *Belpaese* profoundly. In the case of banking, it created a long-lasting tension between vestiges of regional banking and a central government that aimed for a more centralised banking system.

Unifying the country was a challenge and, in some sense, a goal that was never fulfilled. Even today, sharp divergences in social capital, cultural norms, and administrative performances between different regions (most notably between the north and the south[1]) are understood to have their historical roots in the pre-unity states (see, most notably, Putnam et al. 1993). Such regional differences did not, however, encourage the adoption of a decentralised governance structure. Instead, the Piedmontese unifiers (Ziblatt 2008: 79)

> adopted a highly centralised political system in which (1) the formerly independent regional states had no formal representation in the new national government, (2) the independent regional state had no public finance discretion (i.e. no taxing and spending discretion), and (3) the independent regional states lost all administrative autonomy.

1 Thirty years after reunification, former East Germany GDP per capita was estimated to be 73 per cent of former West Germany, roughly compared with 45 per cent in 1990. GDP per capita in the south of Italy is, 160 years after unification, 50 per cent of GDP per capita in the north.

The new state could be seen as a larger version of the Kingdom of Sardinia, led by the House of Savoy, which in turn was built on the French model of a top-down administrative state. As soon as the Kingdom of Sardinia occupied Lombardy in 1859, a law was issued to extend the Piedmontese legal system to the Lombards, irrespective of the local, traditional institutions. Further annexations followed the same model. Zariski (1983: 18) suggests:

> [I]n mid-nineteenth-century Italy, a small national-minded elite had constructed a state long before a sense of nationhood had been widely diffused among the culturally backward masses, [and, hence,] even a moderate degree of decentralisation was seen as a possible source of dangerous centrifugal tendencies.'

The consequence writ large was a tension between the centralising tendency of politics and the law and resistance to centralisation by local culture and society. To some extent, banking and money after Italy's unification (Polsi 1992) reflected this same tension. The newly united Italy had a single currency (the Italian lira, created by a law of 1862) but saw the circulation of banknotes issued by five (then six, after the annexation of Rome) different issuers. The establishment of the Italian lira suggested a single unit of account, but also a regime of mostly fixed exchange rates among the notes issued by different issuers.

Thus, when Italy became a nation state it preserved for a while a plurality of banks of issuance. Though such an arrangement had its defenders and champions, it was not a matter of constitutional design, nor a deliberate political choice. It resulted from historical circumstances and political manoeuvring by different interest groups. But in a sense it was doomed to be replaced, regardless of its merit, because of the unification's ethos.

Before unification

The newly unified Italy was de facto a monetary union, which started in 1862 when a new coinage system based on the lira of the Kingdom of Sardinia superseded all the pre-existing coins and paper money.[2] This lira was made the legal tender of the Kingdom of Italy, its value fixed at 4.5 grams of

2 The country had '268 currency units in circulation, most of them of different titles' (De Mattia 1990: 14).

silver and 0.29 grams of gold. The new monetary provisions did not change existing arrangements with regard to the issue of paper money. Thus, the persistence of a plurality of note-issuing banks was at odds with the dominant centralising trends inherent in the unification process.

In his illuminating study of Italian and the German unification, Ziblatt (2008) considers Italy an example of *unification by conquest*. The country did not come together on the basis of a compact between the pre-existing states: instead, the Piedmontese seized the north militarily and then were prompted to move south and incorporate the Kingdom of the Two Sicilies after Giuseppe Garibaldi's (1807–82) successful expedition (the 'thousand').

The way in which the state was unified had important repercussions for its institutions. 'Piemontese officials found themselves adopting a centralising pattern of political authority during the critical years of 1859–65 … despite their own "liberal" commitment to decentralization' (Ziblatt 2008: 80). In contrast to Prussia, 'Piedmont was without regional governments in place and without the time to construct them' (Ziblatt 2008: 81). For Ziblatt, Italy did not take a federalist path because of the limited state capacity of the kingdoms other than Piedmont. They were poorly politically structured when it came to '(1) the development of constitutional rule, (2) the existence of parliamentary structure and (3) the development of administrative structures.' Hence they 'suffered from poorly developed institutional capacity to do the work of modern governments: to tax, conscript manpower, maintain civil order, and carry out political projects of social and economic reform' (Ziblatt 2008: 82–83). Weak states, Ziblatt maintains, made for poor bargainers.

The Italian territory was politically pluralistic and diversified and, on paper, an ideal ground for a *federalist* unification. Such was the 'utilitarian' and bottom-up model of unification that economist Francesco Ferrara (1810–1900) advocated in 1848. For Ferrara, 'What is true for men, is also true for peoples. A union is always a contract, in force whereof something is yielded, but always in view of an object one is aiming – or hoping – to achieve' (Ferrara 1848: 329). The Sicilian economist and patriot was convinced that 'unity, this everlasting vision of Italy's existence and independence, shall forever be a futile endeavor until the proper balance between the force that is to be concentrated, and that which it tends to dissipate' (Ferrara 1848: 321). Ferrara was not alone in pushing a federalist model for a united Italy. Yet things went differently as Piedmont, rather than pursuing a confederative covenant with the rest of the country, acquired militarily, first, the Austrian dominions in the north, then the Kingdom of the Two Sicilies and, later in 1870, Rome. In 1860, Tuscany had joined after a plebiscite.

As we have seen, Ziblatt suggests that the conquered states were too weak to attempt to negotiate, instead of letting themselves be invaded.[3] In 1861, a few months before dying, Camillo Cavour (1810–61), the Piedmontese prime minister who led the unification of the country, entrusted his minister of interior affairs, Marco Minghetti (1818–86), to prepare a plan to reform Italy in a federalist direction. Minghetti's work aimed at developing regional levels of government but went nowhere.

In the realm of monetary policy, the fact that Italy was unified by conquest meant that it did not follow the same, gradual path toward unification that Germany followed. The Germans formed a *Zollverein*, a customs union, beginning 1834, but also a *Münzverein* among the states that participated in the customs union beginning in 1838, which in practice meant a fixed exchange rate between the common thaler of the northern states with the southern gulden and a silver standard. The Italian peninsula had neither, with the partial exception of the Lombardo Veneto region, which briefly joined the German *Münzverein*, in 1857, as part of the Habsburg Empire.

Sixty years earlier, Lombardy and Veneto had been occupied by the French. Napoleon brought political innovations and circulation of different monies that could 'ultimately refer to … a single currency, the bi-metallic Franc Germinal, corresponding to 5 grams of silver of millesimal fineness 9 hundred, pegged to gold in the ratio of 15.5 to 1' (Einaudi 2011: 172). The franc germinal was a legacy of the French revolution (Redish 1995) that was extended to the countries Napoleon conquered. Since these included basically the whole peninsula, with the exception of Rome, 'French monetary policy in the monarchic age (1805–14) brought about a de facto currency union for Italy (with the exception of Sicily and Sardinia)' (Einaudi 2011: 172). Hence a number of monetary and coinage reforms took place after the Restoration, though the circulation of Napoleonic coinage did not stop immediately everywhere. The French influence nudged the Italian states towards a *mostly* bimetallic standard. In the Kingdom of the Two Sicilies, for instance, '98% of circulating cash was silver' (Einaudi 2011: 184). By introducing the lira the Italian government aimed to deal with some of problems related to bimetallism and in particular

3 Many have pointed to the 'expedition of the thousand' led by Garibaldi as the fait accompli which twisted the arm of the Piedmontese. Others suggest that the most influential of the theorists which shaped the future of Italy was actually Giuseppe Mazzini (1805–72), whose influence outweighed his federalist competitors. Such a fascinating subject is well beyond the scope of this chapter.

the relative scarcity of silver: in August 1862 a monetary reform 'introduced the 5 lire (5 gram, 90 per cent fine) silver coin with unlimited legal tender and free coinage, but it also provided for coinage of tokens (83.5 per cent fine) for denotations less than 5 francs' (Redish 1995: 733).

Before unification, mints were (Einaudi 2011: 189)

> in the main operated directly by the government, albeit not in every state … mints were occasionally contracted out – for more or less brief periods – to private operators, a practice which yielded lower costs, but its small scale and sporadic nature made it unviable. The smaller the state, the less likely appeared the success of an outsourcing approach.

In the thirty years after unification, most mints were phased out, beginning first with Parma, Genoa, Bologna and Florence in 1861, later Venice, Turin and Naples in 1870, and eventually Milan in 1892. The only mint kept in operation was the one in Rome but new coinage became rare and the country moved to a system based on banknotes.

Note-issuing banks

Italian states before the union can be divided into three groups: those kingdoms (Piedmont, Tuscany, Rome plus the Lombardo-Veneto, as part of the Austrian empire) which 'have a proper issuing bank, that is a bank authorised to issue bearer paper money as legal tender'; those kingdoms where 'banks issue registered, transferable notes, albeit subject to circulation trust and thus not deemed to be legal tender,' and those where we only have 'the circulation of metallic money' (Fratianni and Spinelli 2001: 130). It needs to be remembered, however, that (Gianfreda and Janson 2001: 31)

> the circulation of paper money was still very slim and the demand for barter still very frequent. The public showed a marked preference for metallic money for payments. This was due in part to the agricultural nature of the economy … not even the State Treasury accepted payments in paper notes, with a few exceptions regulated by specific conventions.

Piedmont. The most significant of the note-issuing banks both before and after Italy became a unitary state was the Banca Nazionale degli Stati Sardi. In the territory of the Kingdom of Sardinia, two banks entitled both to provide commercial credit and to issue banknotes were established: the Bank of Genoa in 1844 and the Bank of Turin in 1849. Though private entities, both banks were sponsored by the Piedmontese Treasury 'to favour the development of trade and the wealth of the country' (Di Nardi 1953: 4). These banks operated as commercial banks and were allowed to issue notes payable on demand in cash to the bearer for denominations of 1,000 and 5,000 lire, with smaller-value bills of 250 lire allowed but only up to 1/15 of the total of issuance. Banks were required to hold reserves of at least one-third of the total amount of circulating notes and current accounts (Di Nardi 1953: 10).

The two banks were merged in December 1849 to form the Piedmontese Banca Nazionale after banknotes had been made inconvertible during the turmoil and wars in 1848. In 1850, Piedmont adopted a scheme based on a single issuing bank, prohibiting the establishment of any 'circulation bank' (or note issue bank) without prior authorisation by the government and placing a cap on the circulation of banknotes (Di Nardi 1953: 11). Further privileges were approved in the 1850s, which culminated in 1859 with the temporary enactment of a regime of *corso forzoso*, literally 'forced circulation', i.e. suspending the convertibility of the bank's notes as to allow for an exceptional loan financing the Piedmontese state, then at war with Austria. That same year (Fratianni and Spinelli 2001: 124),

> the principle was established that banknotes issued to meet the financial requirements of the State – the so-called 'notes issued on behalf of the State' – were exempted from the regulation of circulating money. That is to say, the [issuing] bank was not subject to the legal requirements of the reserve/circulation ratio whenever its notes were issued to fund a deficit of the State budget.

The history of the bank is intertwined with the history of the Piedmontese state: it financed the government's military campaigns after 1849 and was rewarded accordingly. 'In the era of annexations, the Banca Nazionale progressively broadened the scope of its own operations by incorporating in part the smaller, pre-existing banks' (Corbino 1962: 21). In 1859, the bank had branches in seven cities; by the end of 1861 it had branches in 20 cities, and by 1866 it had branches in 51 cities (Di Nardi 1953: 47). The expansion of the Bank was sponsored by the government, which hoped to 'to arrive – by means of a spontaneous process of incorporation – … to endow the country with a sole and mighty issuing bank' (Di Nardi 1953: 47).

Tuscany. In Tuscany the Banca Nazionale Toscana had resulted from a merger between the banks of Florence and Livorno in 1857. Tuscany arrived at unification, then, with a de facto monetary monopoly but exercised by a bank whose market occurred in 1859, a year not particularly propitious in view of the political turmoil in the Grand Duchy. Its currency was convertible. The bank followed a 'very straightforward policy in its investments' among which 'the highest preference was accorded to discounting promissory notes' and 'the employment of public funds was not an habitual custom of the bank' (Di Nardi 1953: 91).

This bank was joined by the Banca Toscana di Credito per le Industrie e i Commerci d'Italia, established in 1860 but only operational after 1863. The bank issued fiduciary bills ('bearer cash vouchers, convertible on demand into specie'). The bylaws set the maximum limit of the circulation of cash vouchers at three times its capital but no 'minimum ratio between the reserve in specie on hand and the circulating vouchers' (Fratianni and Spinelli 2001: 129).

Lombardy and Venice. Even at that time, Lombardy was the most dynamic territory, economically speaking, in the Italian peninsula. A wise observer noted that the Milanese territory suffered under Spanish rule but, once integrated into the Austrian Empire, it blossomed as a consequence of the fiscal and legal reforms (Cattaneo 1844: xciv–xcv). It did not have its own bank of issuance, however, as it was part of the Habsburg empire, where money creation was entrusted to a monopoly, the Bank of Vienna. But starting in 1853 the Italian Habsburg territories had their own issuer, the Stabilimento mercantile di Venezia, which was the only exception to the Viennese monopoly throughout the empire and which issued fiduciary bearer notes. Its notes had no legal tender status. It was incorporated into the Piedmontese Banca Nazionale in 1866. A similar institute (which issued only fiduciary bills with no legal tender status) was the Banca degli Stati Parmensi, in the Duchy of Parma, Piacenza and Guastalla, incorporated in 1858 and later merged also into the Piedmontese Banca Nazionale.

Naples and Sicily. The Kingdom of the Two Sicilies, under the rule of the Bourbons, had two public banks: the Banco di Napoli and the Banco di Sicilia. The Banco di Napoli emerged out of ancient institutions, the 'monti di pietà' 'beneficent institutions' [basically pawnshops] established in Naples in the sixteenth century to counter usury for the benefit of poorer citizens (Di Nardi 1953: 112). At the end of the eighteenth century seven such banks were operating but their creditworthiness was severely harmed by the abuses engendered by the interference of the Bourbon court in the management of their operations. These banks did not issue banknotes per se but did issue *fedi di credito*, mandates guaranteed by certified deposits (*madre-fedi*), which played the same role as banknotes.[4] King Ferdinando IV (1751–1825) then arranged for a merger into a single bank, which only made matters worse. As Di Nardi (1953: 113) observed: 'this forced amalgamation enabled the Bourbon government to further exploit … the resources of the banks, which caused a [further] steady deterioration of their reputation'. The Banco di Sicilia, another government bank, was established in 1843 but did not issue notes until 1858.

The Papal States. Rome had a Banca Romana, established in 1850 out of the ashes of a preceding bank which had operated under the same name. The first Banca Romana went through a severe crisis in 1848, which coincided with the formation of the short-lived Roman republic, which increased the circulation and adopted a regime of *corso forzoso*. After the pope regained control of Rome, banknotes issued by the Republic were recognised as legitimate and the inconvertibility was confirmed for a year – though it also became apparent that the bank needed a more solid foundation. The bank was then recapitalised and granted a monopoly over the note issue under the standard Italian stipulation that the note circulation was not to exceed three times the specie reserves on hand. Yet the new bank didn't perform much better than the old one. Fratianni and Spinelli (2001: 128) scathingly commented that 'its entire existence was characterized by erratic and occasional illicit operations'. During the 1860s, the bank was frequently on the brink of collapse but kept alive, even after the unification, for political reasons (Polsi 1993: 57). Rome was annexed by the Kingdom of Italy only in 1870; therefore the bank suffered when, in 1866, the circulation of metal coins was limited in the Kingdom, thereby causing specie to be exported from the Papal States to the rest of Italy.

The bank had branches in the cities of Ancona and Bologna, both under papal rule. The Bologna branch was incorporated in 1855 into a private and autonomous entity, the Banca delle Quattro Legazioni. After the unification with the rest of Italy, it merged with the Piedmontese Banca Nazionale.

4 In essence, it was a deposit receipt which, however, in addition to certifying the existence of the money in the bank's coffers, also allowed for its reimbursement, either to the owner or to others.

Upon unification, in July 1861, the Piedmontese lira was made legal tender in all the territories of the newly formed state. One year later, in August 1862, Piedmontese bimetallism was adopted across the new state. Except for the Piedmontese Banca Nazionale, each of the above-mentioned banks operated primarily in their respective areas, with circulation limited in the region not so much by legal limitations as by the relative simplicity and backwardness of the payments system of the time. Yet, between 1866 and 1893, Italy had 'six issuing banks, each printing paper lire: there thus existed de facto six different currencies, namely six types of the same unit of account – the lira – which as such were exchanged at parity' (Ripa di Meana and Sarcinelli 1992: 82).

Free banking on a commodity standard, 1860–66

I have so far described the banks of issue that were established in the pre-unity states and survived into the Kingdom of Italy. The resulting situation was described by Ripa di Meana and Sarcinelli as 'a regime of competing currencies at a … fixed exchange rate,'[5] i.e. free banking on a commodity standard. The amount of banknotes in circulation remained stable, with the exception of that the Piedmontese Banca Nazionale, whose circulation grew with the Kingdom's own territorial expansion.

Between 1860 and 1866, banknotes were required by law to be convertible on demand. The commodity standard was bimetallic. Hence, the issuance of banknotes showed 'a tendency towards stability' and 'disciplined behavior by note issuing banks' (Gianfreda and Janson 2001: 33, 34). This arrangement suggests a relative neutrality of government institutions vis-à-vis issuers, though the Piedmontese Banca Nazionale enjoyed a stronger link with political power. Such conditions were not to remain for long, however.

In their work Gianfreda and Janson (2001: 25) distinguish between four different periods, each defined by their regulations governing note issuance: convertibility (1861–65), the *corso forzoso* (1866–73), the consortium regime (1873–89) and the short-lived return to convertibility (1881–93). The broad conclusion of their work is that convertibility restrained note issue and inconvertibility encouraged it (Gianfreda and Janson 2001: 58–59).

Political choices then had a profound impact on the banks' performance, which thus needs to be evaluated in the context of laws written precisely for

5 This is the reason why new scholarship over plurality of issuance flourished when discussions over the adoption of the euro took place throughout Europe around 30 years ago. See, for example, Sannucci (1989) and associated comments by Charles Goodhart and Gianni Toniolo.

the purpose of political interference. The regime of *corso forzoso*, as we'll see, was conceived to benefit the Piedmontese Banca Nazionale, whose banknote circulation quadrupled between 1865 and 1868 and then more than doubled between 1868 and 1873 (Gianfreda and Jansons 2001: 39–40). This growth in circulation was related to its extending credit to the government to finance government spending. Smaller institutions had no such privileged position and their issuance of banknotes could not grow as fast.

Broadly speaking, we should remember that the main drive to increase issuance were the trends of a national economy that, up the second half of the 1880s, seemed to be on a trajectory of growth, and galvanised by the recent unification. In a context marked by a weak and young financial sector (though some 300 financial institutions were established in the fifteen years after unification), this added further to the pressure on the banks of issuance. Hence, the history of the Italian banks of issuance is deeply intertwined with political events. It not by chance that Italian economists became increasingly concerned about the problem of protecting the independence of banks from political power (Realfonzo and Ricci 2003: 45–48).

Arguments over free banking and the *corso forzoso*

Italy, unified by conquest, structured its public administration in a highly centralist, top-down fashion. The fact that Italy arrived late to the monopoly of issuance is then somewhat surprising. Some have pointed to an alleged hegemony of libertarian economists (see Cardarelli 1990). Such economists knew of Scottish free banking, which came to be seen as a model (Polsi 1993: 48).[6] Other commentators emphasise the opposition of regional interests (Sannucci 1989), in particular, the fact that the so-called Historical Left had a stronger constituency outside Piedmont (De Mattia 1990: 8) than within it. The role of chance should not be so easily discounted either, as political events belong to 'the aimless and contingent movement of actual history' (Greenfeld 2018)

The most important of Italian nineteenth-century economists, Francesco Ferrara, was a champion of free banking and so were 'most of well-known Italian economists of the period' (Realfonzo and Ricci 2000: 28). 'The defenders of free banking denied that any aspect of banking activity warranted an

6 Not surprisingly, Ferrara complains that Scottish free banking 'is an evolution of modern banking, that other countries did not follow' (Ferrara 1856: 185).

exception to laissez-faire or what Ferrara termed "the freedom principle"' (Realfonzo and Ricci 2000: 29). Ferrara's magnum opus consists of a series of long 'Introductions', which he prefaced to the translations of foreign essays in political economy that appeared in the *Biblioteca dell'economista*, a collection of works published in Turin that was intended to represent the gold standard of professional knowledge. In a long essay prefacing, among others, articles by Michel Chevalier (1806–79), Charles Coquelin (1802–52), John Ramsay McCulloch (1789–1864) and Henry Carey (1793–1879), Ferrara had reviewed the history of monetary thought and commented that, as most thinkers were fine with government monopoly of money, 'much faith is required in the principle of liberty, to make so bold an assertion that the issuing of money is not, in itself, an anomaly in the system of non-intervention by the government' (Ferrara 1856: 132). Yet Ferrara clearly possessed such faith, mentioning approvingly *Les soirées de la rue Saint-Lazare* by Gustave de Molinari (1819–1912).[7] In *Della moneta e dei suoi surrogati*, Ferrara (1856: 6) began his sketch of a history of money by pointing out that

> no sooner was the need conceived and the system adopted of dividing metals into pieces, each stamped with a mark that certified its weight and quality, that the first of those abuses emerged that mark the distinguishing features of the history of money: the monopoly of public power. Men needed an easily recognizable and authentic seal, and the governments took up the duty of providing it, but they also concluded that to them alone the Gods had bequeathed the right to produce the things to be stamped with this seal.

Coinage was a matter in which sovereigns plundered their people, producing many an evil: adulteration of money brought about by rises in prices, which in turn led governments to implement price controls (Ferrara 1856: 48–50).

Ferrara was hardly a friend of inconvertible banknotes and distinguished between two possible origins of paper money: 'the one expressly created by the government, as was the case of siege money in antiquity; the other directly derived by the paper money issued by banks, namely paper that was, by its very nature, convertible, but that became, by the force of temporary urgent [state] needs, forced and inconvertible' (Ferrara 1856: 211). Ferrara (1866b: 298–99) argued that, with the *corso forzoso*,

7 Not surprisingly, Ferrara complains that Scottish free banking 'is an evolution of modern banking, that other countries did not follow' (Ferrara 1856: 185).

> the government, in decreeing the forced circulation of paper that cannot sustain its integral value perpetrates an act that amounts in truth to the most extravagant and ruthless socialism … It worries the employee, the widow, and the minor, it impoverishes the receiver of fixed annuities, and it safeguards and advances the profits of the retailer, of the debtor, of the taxpayer.

The *corso forzoso* and its unintended consequences

In 1866, the Italian government resorted to its 'famous' (Allen 2009: 89) *corso forzoso*, a measure prompted by the fiscal exigencies of the Austro-Prussian War of that year. The suspension of convertibility was to last until 1881. Even before then, it was already apparent that the domestic public credit was depleting and that the confidence of foreign investors was waning. By 1866 a budget deficit of some 3,000 million lire was expected, and there were looming fiscal problems, as increasing taxes appeared impossible, given recent tax hikes. When the war broke out, Italy was bound by treaty to participate on the Prussian side, and the country's fiscal problems now became acute.

The idea then began to circulate that the Italian government was on the verge of making banknotes inconvertible. There were bank runs and a sense of emergency. The government then obtained a loan of 250 million lire[8] from the (Piedmontese) Banca Nazionale, at the modest interest rate of 1.50 per cent and sought to end the public sense of uncertainty in the public, by declaring the forced circulation of notes. As George Selgin (1988a: 10) put it:

> [A]s an alternative to retrenchment the Italian government sought further help from the note-issue banks. It secured this help by allowing the notes of the Bank of the Kingdom issued in connection with loans to the state to pass as inconvertible (force[d]) currency, while at the same time awarding limited legal tender status to the other issuing banks.

Banks were not allowed to issue banknotes in excess of three times the amount of reserves, the latter consisting of gold for the Banca Nazionale, and in one-third gold and two-thirds Banca Nazionale's bills for the other banks. The circulation of the Banca Nazionale's notes on behalf of the

8 At the end of 1865, 'circulating notes and the total monetary base of the country respectively amounted to 128 and 1,711 million lire' (Fratianni and Spinelli 2001: 157).

government was not subject to any reserve requirement. As Gianfreda and Janson (2001: 37) observed:

> By the measures of 1866 a pyramidal scheme was established whereby the notes of [the Banca Nazionale] were endowed with a higher state as legal tender and constituted a de facto monetary base. The circulation of bank-issued notes thus ceased to be an independent endeavour, as changes in [the amount of notes issued by the Banca Nazionale] affected the liquidity of the other banks.

The dissenting voice of Ferrara (1866a,b) immediately pointed out that the *corso forzoso* mainly benefited the Banca Nazionale, and a better way of dealing with the problem might have been 'the deliberate creation of government paper which, endowed with the status of legal tender, and issued in case of need, would have been placed into the general circulation, getting mingled with the existing money [in circulation]' (Ferrara 1866b: 310–11).

A subsequent Parliamentary commission was to prove Ferrara right and ascertained that the bank run had affected only four non-issuance banks, 'each bound to the Banca Nazionale by several interests. Whereas these few banks experienced an extraordinary withdrawal of deposits, the Italian banks as a whole and the Banca Nazionale experienced instead a greater inflow of deposits' (Di Nardi 1953: 123). The commission concluded that the *corso forzoso* had not been needed, from either economic, financial or political perspectives. Yet such *ex post* condemnation could hardly reverse history. Contemporaries may have been more indulgent with the government and then-minister Antonio Scialoja (1817–77), in consideration of the looming threat of war. Di Nardi (1953: 126) tends to consider the 1866 *corso forzoso* as 'one of those typical cases whereby the suspension of the note's convertibility is enacted during a severe banking crisis, with the aim of bailing out the banks threatened by their depositors' panic'.

Its consequences were to be momentous. The *corso forzoso* was 'a traumatic event in a country so little accustomed to paper money,' as Kindleberger 1984: 140) later remarked. Before 1866, there was a strong preference for metallic over paper money: the 'average life' of a Banca Nationale banknote's circulation, before being redeemed, was 121 days in 1860, 75 days in 1862 and 65 days in 1864 (Fratianni and Spinelli 2001: 150).

Corso forzoso also marked a permanent turn of the tide: the return to convertibility, decreed in 1881 and put into practice in 1883, was to be short-lived. By 1887, de facto, the lira was again inconvertible. The long-term effect was the displacement of specie with paper: inconvertible legal tender banknotes now accounted for 36 per cent of the total circulating money and, in the course of a few years, was to exceed the metallic. Coinage represented 70 per cent of the monetary base in 1861, 33 per cent in 1872, 43 per cent in 1883, 32 per cent in 1900, 20 per cent in 1913 and 6 per cent in 1918 (Einaudi 2011: 193).

The *corso forzoso* also had awkward international consequences. In 1865 Italy had just joined the Latin Monetary Union, whose members were committed to a bimetallic standard. And yet with the *corso forzoso* (Martello 1884: 5):

> Italy was part of an immense monetary state of 75 million inhabitants, for whom the two metals were supposed to have the same legal tender as means of payment. At the time, however, neither gold nor silver were circulating in Italy. The bimetallic standard was [thus] not in force in that country, despite [Italy] being bound to it by an international agreement.

When an economy moves from specie money to inconvertible banknotes, one would expect a dual system of prices to develop: higher for those who pay with paper, lower for those who pay with metal. The law that established the *corso forzoso,* however, 'decreed' that one golden lira was to have the same purchasing power as a paper one. The law created an incentive to hoard precious metals and pay in paper notes.

But, since the country was part of the Monetary Latin Union, owners of metallic money could export it.[9] So silver and gold coins were exported, where they would be purchased according to the commercial value of their metallic content or hoarded. Gold moved internationally and (Di Nardi 1953: 130):[10]

9 'The only limits foreseen in the UML concerned the respect of the uniformity of weight and title of the monetary pieces of all the member States and the quotas of metallic money issues. There were no rules for paper currency, neither with respect to the quantity of issue, nor with respect to its convertibility, leaving a free hand to the single States: this will be one of the reasons that will undermine the functioning of the Union and Italy, as we said, will be held responsible for the introduction of forced circulation' (Filocamo 2016: 337). Attempts were made to pass a law to prohibit the export of coins (De Viti de Marco 1893: 188).

10 In a 2 October 1892 letter to Maffeo Pantaleoni (1857–1924), Vilfredo Pareto (1848–1923) commented that 'France and Switzerland … should complain about Italy that has been forced to make a forced loan, exporting its silver coins' (Pareto 1960: 296).

> in the members of the Latin Monetary Union, France, Switzerland, and Belgium, in particular, silver 'divisionary' [small-denomination] coins[11] that had the status of legal tender under the monetary convention of 1865, were also exported. Even bronze coins, whose intrinsic value was barely a third of their nominal one, were exported into France and into the Swiss border cantons.

In the short term, then, the most immediate result of *corso forzoso* was a reduction of means of payment available in Italy. The 'continuing scarcity of [small-denomination] coins' was to last for years,[12] and this problem was resolved, to the extent that one can say it was ever resolved, by bottom-up, spontaneous, individual actions rather than by top-down fixing.

The most spectacular unintended consequence of the *corso forzoso* was thus the emergence of paper money deemed to be 'abusive,' 'small denomination notes, issued by cooperative banks, municipal governments, commercial companies, mere retailers and, eventually, hairdressers' (Ferrara 1868: 452). The fact that smaller coins, including copper ones, were exported led to (Di Nardi 1953: 135)

> the custom, by provincial and municipal governments, chambers of commerce, religious philanthropic institutions, commercial companies, and even private shopkeepers, of issuing on their own behalf small denomination vouchers, occasionally even mere pieces of common paper with an annotation of the bearer's credit.

In Florence 'shopkeepers and entrepreneurs agreed to mutually accept the bonds they issued, that they later exchanged settling any difference' (Di Nardi 1953: 136). The chamber of commerce in Biella (Di Nardi 1953: 137)

> decreed that its members should refrain from accepting the notes issued by private individuals or businesses, and only receive the notes of General Association of Biella's workers. At the same time, the Chamber required this Association to hold in its treasury the equivalent amount of the circulating

11 In 1862, Italy adopted a 'biglione' coin, a coin with 835 grams of silver whose value was legally set to be on par with the traditional 900 grams silver franc (Martello (1884: 10) remarked 'the anguished Hamlet's dilemma of to be or not to be was eventually solved by the monetary logic of diplomacy: not to be and to be').

12 The expression is borrowed from a 1 August 1894 article by Vilfredo Pareto (1965: 137).

> notes, in legal tender, Treasury bonds, public funds assessed at their current stock exchange rate, and promissory notes with a three-month term.

This was a period of monetary experiments. At a certain point the 'association of Milan's shopkeepers' started to issue 'bonds or notes of one lira ... in consideration of deposits made in banknotes, that is, in legal tender': a solution that 'spontaneously emerged from a need of the market and was voluntarily and freely adopted' and yet it upset 'our rulers, dismayed that anything, even trivial, be done without the intervention of their superior insights' (De Viti de Marco 1893: 191).

This 'abusive' circulation, by and large the result of shops and businesses supplying credit for their customers, reached 18 million lire by the end of 1868 (Di Nardi 1953: 136). It was mostly genuine 'fiat' money, accepted because the issuer was trusted. Martello (1877: 10) points out that this circulation was fought by the national government with all its might:

> by means of mere administrative circulars [the government] brazenly attempted to indiscriminately abolish the notes of 86 so-called banche popolari [cooperative banks] and 138 Società di credito ordinario [credit unions].

It is estimated that there were some 1,000 issuers of small-denomination money in the country (Bruni 2011: 13n). Italians are known for *l'arte di arrangiarsi*, the art of making do. Their reaction to the shortage of small notes was a glorious example of this particular gift of theirs. The government may have deemed those promissory notes to be unlawful, but they were an important part of people's daily lives. Nowadays, a quick search on eBay presents prospective buyers with a number of 1860s banknotes, issued not by an authorised bank but by 'Popular Workers' banks *soi-disant,* local business confederations, local municipalities and commercial banks. This phenomenon helped people by familiarising them with the use of banknotes even for small transactions.

Di Nardi recognises this situation as a form of genuine 'liberty of issuance' which 'emerged from a need spontaneously engendered by a scarcity of small-denomination coins, but continued to exist even when its originating cause was ceased' (1953: 137). It is typically remarked that a good chunk of those 'spontaneous' means of payment had an unsteady, if not fraudulent, nature. One may be tempted to say that moving into the uncharted water of paper money, Italy had the worst of two worlds: it experienced the conflicts of interest typical of 'managed' capitalism and the hazards commonly associated with unfettered competition. Yet the latter, which are hard to quantify, were a by-product of the citizens' responses to the problems caused by the former.

The end of competition

In surveying the international experience of free banking, Kevin Dowd has pointed out that the free banking episodes involved 'at least a certain amount of bank freedom, multiple note issuers, and the absence of any government-sponsored "lender of last resort" ' (1992b: 2). The plurality of issuers in the newly united Italy somewhat fits this description – but only up to a point. There was no institutionalised lender of last resort, but, as already pointed out, the Banca Nazionale clearly enjoyed a special relationship with the government. The newly unified country had a high-spending state by the standards of the period, with public expenditure approaching 20 per cent of GDP, and the government had become used to bank credit.

It has already been mentioned that banknote circulation in Italy was by and large a regional phenomenon. This created a widespread suspicion that the status quo was meant to preserve and strengthen the Banca Nazionale, whose banknotes – as a consequence of its rapid expansion – were the only ones which enjoyed a wide circulation in the country. This outcome had been the goal of those who hoped for a rapid monetary unification of the country, but was opposed by both the free traders and those lawmakers who were associated with the interests of other regions than Piedmont, and therefore other banks. These groups were not irrelevant: Parliament repeatedly stopped the merger between the Piedmontese and the Tuscan bank and rejected all measures that would have endowed the Banca Nazionale with the role of government treasurer (Di Nardi 1953: 196). Still, the Bank cultivated its special relationship with political power by providing loans to the government that in turn enabled the Bank to increase its issuance (Gentier et al. 2011: 7). The Bank played a decisive role in the process of securitisation that followed the state seizure of Church properties (Tedoldi and Volpi 2021: 35–36). So, in a sense, the need for resources on the part of the government made it the more reliant on the Bank, which was to remain a necessary ally when, after 1876, public spending was on a rising trend.

Corso forzoso thus helped the bank in broadening its circulation (Gentier et al. 2011: 4):

> protected by the suspension of convertibility the [BN] expanded its note circulation close to the limit written in its statute – the reserves in specie fell to as low as 33% of its private circulation – the notes issued against government loans being free of reserve requirements.

The *corso forzoso* increased demand for the bank's notes, which were used in interbank clearings. While the other banks had to cope with convertibility of their notes into those of the Banca Nazionale, the latter was totally free from any conversion obligation. Gianfreda and Janson note that, during the *corso forzoso*, the circulation of other banks' banknotes increased too, but with more difficulties, as their cost to issue included the need to purchase the Banca Nazionale's notes, required for the clearing of accounts (Gianfreda and Janson 2001: 40). To contemporaries, converting the notes of other banks into Banca Nazionale's banknotes was an expensive process (Martello 1877), whereas some scholars thought that, during the *corso forzoso*, it worked rather well and helped interregional transactions (De Mattia 1990: 17).

This growing circulation begun to feed public worries and many a politician in 1870 campaigned for government banknotes being 'marked by a suitable stamp.' In 1870, a law proposal presented by then Minister of Finance Quintino Sella (1827–84) would have introduced uniform rules for new bank issuances while assuring freedom of entry in that market (Cardarelli 1990: 139–41): the bill didn't pass. The 1872–73 crisis also triggered a concern for more extensive regulation of issuance, which eventually came with the Minghetti–Finali law approved on 30 April 1874.

The key provision of the Minghetti–Finali law was an explicit limitation of freedom of entry: issuance was limited to the six banks that had issued banknotes so far and, insofar as banknotes were to be inconvertible, no other economic actors should issue them.[13] Di Nardi (1953: 199) reads the law as ending that uncertainty, which

> had caused the so-called abusive issue by public and private bodies, embracing the principle that the issue of paper money is an inalienable right of the State, which it can delegate to others, but always as the explicit manifestation of its will.

13 Anyway, a special opportunity was conceded to the Istituti di Credito Agrario, which could issue 'vouchers' that were de facto banknotes.

In contemporary jargon, we can say that the law established a regulated oligopoly. The six issuance banks also established a consortium, whose function was to provide up to 1 billion lire in banknotes to the state for the purpose of monetising the national debt. These 'consortium' banknotes were to be inconvertible, whereas the 'ordinary' banknotes issued by the different banks on their own behalf were legal tender and in principle convertible. In a sense, this arrangement placed the *corso forzoso* on a level playing field, purportedly aiming to reduce the privileges of the Banca Nazionale relative to other note-issuing banks. The consortium's banknotes included smaller-denomination notes (0.50, 1, 2, 5, 10, 20, 100 and 250 lire) and printed on white paper, whereas the banks' higher-denomination notes (50, 100, 200, 500 and 1000 lire), the first were printed on white paper, the latter on coloured paper.

By law, note circulation could not exceed three times capital and reserves, but the state could authorise extraordinary overruns of these limits. Moreover, a tax was imposed on banknotes not covered by a metallic reserve. All in all, between 1873 and 1880 the circulation of monetary means was 'limited and regular [and] the wholesale price index decreased to 19.3 in 1880 from 21.7 in 1973' (Fratianni and Spinelli 2001: 170). Circulation indeed stayed within the legal limits. Yet, if Minghetti's aim was 'the equalization of all banks, insofar as the status of legal tender was to be accorded to each and every one,'[14] it did nothing in practice to downgrade the privileges of the Banca Nazionale: 'In case the right of issue is exclusively accorded to a few selected banks,' noted Martello (1877: 19), 'whose size is not roughly the same [the result would benefit] the one bank which, being accorded a huge expansion of its market, shall tend to increasingly encroach the others' markets'. As Gianfreda and Janson (2001: 46–48) noted, the limits to circulation had set in stone the status quo of the relationships between the various banks.

In 1876 the Italian government coalition changed, moving from the so-called Right to the so-called Left. In a country where the franchise was limited to roughly 2 per cent of the population, Right and Left embodied nuances of political sensibilities, well within the boundaries of the same ruling class. Yet among the Left parliamentarians, there were stronger sympathies for plurality of issuance. In particular, in March 1877 the then Minister of Agriculture and Industry, Salvatore Majorana Calatabiano (1825–97),

14 The legal equalisation of banks, insofar all six were equally granted the status of legal tender in the Italian Kingdom.

together with Prime Minister Agostino Depretis (1813–87), proposed a law to abolish the *corso forzoso*. At the time, the law didn't pass. It marked, however, the first of many such an initiative by Majorana (see Cardarelli 2007), who was seen as a champion of a 'regulated free banking' (Cardarelli 2007: 306)[15] and who aimed at increasing the number of competitors in the field. In June 1878, Majorana presented another proposal, aimed at setting the scene for the government to authorise new issuers. The proposed law contemplated a provision 'in force thereof any issuing institution was entitled to appoint its own delegate to the administrative body of the other banks' (Cardarelli 2007: 306n), a curious measure that ostensibly aimed at entrusting each bank with a certain degree of surveillance on the others, to build trust and avoid irregularities.

The banks of issuance 'stood united in the defense of their common interests' (Cardarelli 2007: 307) and yet still the proposal was stillborn. Majorana returned to a ministerial position at the end of 1878 and gave it another go. The new bill would have limited the circulation by the existing banks of issuance and opened up the market: he also aimed to abolish both forced circulation and legal tender, since 'banks should accustom themselves to face the market without a safety net' (Cardarelli 2007: 323).

The political difficulties experienced by Minghetti's proposals nudged the Left governments and, in particular, Finance Minister Agostino Magliani (1824–91)[16] to give priority to the abolition of the forced currency regime.[17] A law to do so was then approved on 7 April 1881 that stipulated that notes were to become convertible again beginning 1 April 1883: this time lag allowed for the provision of a foreign loan of 644 million lire ('close to 7 per cent of the Italian GDP at the time' (Fratianni and Spinelli 2001: 173) to allow banks to rebuild their specie reserves.

As Pani and von Allmen (2017: 3) observed:

> The resumption of convertibility, at a time of ample international liquidity, triggered a sustained inflow of short-term capital in various forms,

15 Can free banking be 'regulated'? Free market economists such as Martello (1877) answered in the negative.

16 Formerly known as an advocate of free market economics, Magliani was later to be associated with 'finanza allegra' (promoting increases in public spending during a fiscal deficit) and protectionism.

17 As the news became credible, expectations impacted the markets as 'our exchanges were the scene of a sudden financial panic engendered by the expected, fast fall of premiums' (Di Nardi 1953: 255) and demand for metal coins went up in the light of the need for the Treasury and banks of issuances to acquire as much gold and silver as possible before the reestablishment of convertibility.

> including the placement of Italian stocks and bonds and the discount of bills and commercial paper in Paris and other foreign financial centers. Net capital flows … turned positive at about 2–2½ per cent of GDP between 1883 and 1890 … Prompted by these inflows, between 1883 and 1889 credit grew by 11 per cent a year on average, to 34 per cent of GDP.

The government repeatedly amended the new regime over the next few years. In 1883, it required the banks to keep two-thirds of their reserves in gold, to prevent exports of the country's gold stock. Limits to issuance were partly lifted, if new banknotes issuance was covered 100 per cent with reserves. The 1881 law gave back to banks the freedom to set their discount rate, but in 1885 the setting of the discount rate was returned to the Treasury.

Economic crisis and scandal

In the second half of the 1880s the country went through a profound economic crisis. Increasing net capital inflows brought an appreciation of assets. This went together with broader, international phenomena: the betterment in transportation brought a sharp decline in the prices of grains worldwide, which triggered an agricultural crisis[18] and brought many calls for protection, to which the government acquiesced by raising tariffs in 1887. Beginning in 1885, government deficits were growing and financed with foreign borrowing.

It is worth recalling that the Italy was just developing its own financial system: 'In 1890, as the crisis of Banca Romana was building up, the Italian financial system (credit and insurance) contributed to less than 1 percent of GDP' (Pani and von Allmen 2017: 6).

There had been attempts to promote agricultural credit institutions (in 1866 and 1869), but these met with limited success. It was only in the 1870s that non-issuing banks began to be established, such as Credito Mobiliare and Banca Generale, with nationwide coverage and international contacts.

18 In the wine industry, Italian companies experienced a rapid surge in demand after downy mildew took hold in France. Agriculturists increased production, with vineyards increasing from 2 to 3 million hectares in the country. Protectionism didn't help them, however: 'the almost total stoppage of Italian exports to France, as a consequence of the commercial war that began in March 1888, caused an overproduction crisis, only partially mitigated by the destruction caused by [crop] parasites and by the inadequate harvest of 1889' (Corbino 1962: 46).

The strong expansion of cities, and especially Rome, led to a real-estate boom. Overexpansion of credit brought a speculative bubble and increases in non-performing loans followed by bank failures. In 1889 the government urged the issuing banks – first of all the Banca Nazionale – to assist banks that had been heavily in financing of the real-estate sector. The banks of issuance themselves then rapidly accumulated bad loans, as they were the necessary anchor of more fragile intermediaries.

With the exception of the Banca Toscana di Credito, the increase of circulation began to be significant after 1885–86 (Di Nardi 1953: 350). At the same time, however, there was a 'noticeable shortening of the notes' duration in circulation.' This was particularly evident for the Banca Romana, whose banknotes 'remained in circulation for slightly over a month, whereas the average term of its uses was far longer. From these figures it could be inferred that the bank was overloaded in fixed assets in comparison to others and that its fiduciary circulation had grown to a truly excessive level' (Di Nardi 1953: 351–52).

Gianfreda and Janson (2001: 55) note that 'it would appear that the issuing banks had not issued an excessive amount of notes in relation to their reserves' but, after 1887, banks had hefty liabilities while they were not limited in issuing new notes, because of the suspension of convertibility. Yet, in the case of the Banca Romana *illegal* activities had also been going on. Notes had been issued beyond the legal limit, unauthorised overdrafts on bank accounts had been allowed 'off the books' and the bank had even forged its own banknotes.

In 1889, Minister of Agriculture and Industry Luigi Miceli (1824–1906) arranged for an inspection of the six issuing banks, appointing as inspector to the Banca di Roma Giuseppe Giacomo Alvisi (1825–92) a senator from Veneto. Alvisi chose as an aide Gustavo Biagini, a Treasury official who worked out that the bank had an unauthorised excess circulation of 25 million lire and a cash shortage of 9 million disguised through an illegal, off-the-book production of banknotes.

Since 1881 the governor of the bank had been Bernardo Tanlongo (1820–96), a quintessential political animal: 'he entertains a close relationship with the Vatican and the Jesuits, he also established a no less strong relationship with Freemasons, he managed the agricultural estates of King Victor Emmanuel II near Rome and, it would appear, had also loaned him money at usurious rates … moreover, he entertains a cordial relationship with Umberto and Margherita [at the time the King and Queen of Italy]' and with most of Italy's political class (Bertoni 2018: 80). Tanlongo's clout may explain why the government decided to keep a lid on Alvisi's report and at the end of 1889 to renew all six banks' privilege of issuance, with no action being taken against the Banca Romana. In 1891, Alvisi retired to private life but before leaving politics brought the documents concerning Banca Romana to an economist from Veneto, Leone Wollemborg (1859–1932), who had established Italy's first rural credit union in 1883.

In June 1892, Wollemborg in turn entrusted the documents to Maffeo Pantaleoni, a free market economist. Pantaleoni explored ways to make it public. He discussed the matter with other Italian libertarian economists, including his friend Vilfredo Pareto (1960: 235–36), and, eventually, Napoleone Colajanni (1847–1921), a professor of statistics and a radical MP, and Ludovico Gavazzi (1857–1944), a businessman and conservative MP, who became crucial political allies.

The grave irregularities committed by Banca Romana, until then kept secret by the government, exploded into a public scandal in December 1892. The previous month, Prime Minister Giovanni Giolitti (1842–1928) proposed to raise Tanlongo to the Senate and appointed him (in his role as President of the Chamber of Commerce of Rome) to the committee that was in charge of monitoring the public debt. While the Chamber was discussing a new bill prolonging the privilege of issuance for another six years, Colajanni took the floor and denounced the bank's irregularities.

The genie was soon out of the bottle and Giolitti was forced to appoint a commission of experts to investigate the note-issuing banks. The report of the committee confirmed that the Banca Romana was in dire straits: its note circulation was 137 million lire instead of the 75 million lire permitted by law, it had had a cash shortfall of 28.6 million lire and many nonperforming loans due to speculation in building; moreover, 40 million lire were discovered in a duplicated series of notes that had been printed in Britain but not issued, owing to the honesty of minor officials of the bank. Tanlongo and several of his managers were arrested. Tanlongo accused Giolitti of taking bribes himself. The problem of the illegally circulating banknotes was solved with a dollop of political magic: the Giolitti government simply 'legalised' them.

The scandal that then erupted was unprecedented. In the next few months, the prime minister resigned (though this was only a temporary lapse in his phenomenal career) and one murder occurred. The committee also uncovered irregularities in the management of other banks, in particular the Banca Nazionale and the two southern ones[19]; some changes in their governance were in order. Two other men were killed in a train compartment; one was Emanuele Notarbartolo (1834–93), a prudent former director of the Banco di Sicilia whom some feared might come back to its helm as a consequence of recently discovered felonies perpetrated by his successor. The killers were *mafiosi.*

The political aftermath of the scandal led to the end of Italy's experience with plurality of issuance. The scandal shook confidence and created a window of opportunity for centralisation, which was ably exploited by its advocates. The public sentiment at the time was summarised by Pareto: 'if you want to avoid trouble, create a single bank!'[20] Pareto's assessment was pessimistic: 'It is unlikely the monitoring by the government, which has shown to be utterly ineffective in the past, will prevent such evil in the future,' he drily warned on 1 April 1893 (Pareto 1965: 87).

But this position was a minority one, and free market economists found themselves in a paradoxical position: they wanted to clean up the mess, but their commitment to doing so was rewarded by sowing the seeds of a future monopoly. Eventually, the Bank of Italy was created by Law 449 of 19 August 1893. The Bank of Italy emerged from the merger of the Banca Nazionale with the two Tuscan banks of issue. The Banca Romana was to be liquidated, and its assets and liabilities transferred to the Bank of Italy, which would, in return, receive implicit subsidies in the form of a monopoly of issue for 20 years, a rebate on the circulation tax (from 1.44 to 1 per cent), and the benefit of legal tender for its notes for 15 years. The two southern note-issuing banks were still authorised to issue banknotes, but under strict limits. When the Bank of Italy was established, its capital was 18 per cent of all the Italian joint-stock companies, banks and industrial and commercial firms. The Bank's relative size explains both its influence on the economy and the importance of even small changes in its discount rate (Fazio 1994: 145). Changes in the discount rate (which were to be the same for all three banks) were to be approved by the government, banks had to comply with capital ratios requirements, and government supervision was reinforced by

19 'Paper circulation was contained within the legal limits only in the cases of the Banca Nazionale and the two Tuscan banks' (Fratianni and Spinelli 2001: 186).

20 Pareto to Maffeo Pantaleoni, 20 December 1892. In the same letter, Pareto (1960: 330) reinforced his commitment to competition: 'May just a handful of us remain, if [the monopoly] must [come about], but let us keep the integrity of [our] liberal doctrines. If we yield, we become as opportunist as others are.'

tightening penalties and controls. Responsibility for their supervision was shared between the Minister of Agriculture and the Minister of the Treasury. The new law also formally provided for the restoration of convertibility but deferred its implementation to a royal decree that was never issued.[21] 'The excessive issues by the Banca Romana,' commented Pareto, was made possible only because it was allowed not to convert its banknotes into specie and 'we see that this privilege is again accorded to this newly established bank' (1 April 1893, Pareto 1965: 89).

The monopoly of issuance was formally instituted only under fascism, in 1926. But for all practical purposes, by 1893 a system based on the plurality of note issuance had been dismissed.

Conclusions

Commentators have given several explanations for the non-centralisation of currency issuances in the newly unified Italy. One was an alleged intellectual hegemony of free traders such as Francesco Ferrara; another, that local veto power persisted after unification. Daniel Ziblatt has made a more general point that the pre-unitary states lacked state capacity and thus federalism was impossible in Italy, as a federation would have required some version of a contractual unification of the country.

Perhaps the banks of issuance survived as long as they did because of the broader circumstances of the time. With a banking and financial sector still at the early stages of its development, a relatively decentralised system could endure because centralisation was administratively too difficult to achieve.

All in all, the period between 1861 and 1893 saw a financial system in evolution, as private actors reacted to regulation and pressure from the government, which occurred without any demonstrated 'market failures'. The scandal of the Banca Romana was precisely due to the lack of the effective policing that a free market performs, not to alleged 'cutthroat' competition, and it was not by chance that free market economists were the first to denounce it. As no good deed goes unpunished, their reward was to push the system further toward monopoly.

21 At the end of 1893 Italy suffered a capital outflow which brought about the collapse of two major commercial banks, Banca Generale and Credito Mobiliare. The government responded by postponing (*sine die*) the return to convertibility, i.e. postposting it indefinitely.

To a non-monetary economist at least, the history of the banks of issuance in Italy does not read like an obvious manifesto for centralisation. The system was marred less by unfettered competition than by unfettered politics. The overall lesson from this history is a warning about the perennial dangers of political meddling. But Italian free market economists, from Francesco Ferrara to Vilfredo Pareto, were also political realists, with declining hopes that anything good could come out of the political system. Corruption and politics they came to see as a web that could not be untangled. The fate of the banks of issuance certainly confirms this view.

12 FREE BANKING IN EARLY TWENTIETH-CENTURY NORTHEAST CHINA

Thomas R. Gottschang

Introduction

Early twentieth-century Northeast China presents a paradox for the economic historian, in that it experienced rapid economic growth and real development while burdened with a monetary system that was initially (and notoriously) chaotic and unstable. The region, which was also known in Chinese as the Three Eastern Provinces, and was widely referred to in English as Manchuria,[1] faced challenges to the authority of the weak Chinese national government from Russia and Japan. The money supply included a multitude of different currency forms, both pre-modern and modern, issued by private and official banks of each of the three nations. Standard monetary theory offers no insights into the workings of such a system, but the large and growing body of research into historical cases of free banking provides examples of the ability of market forces to achieve a substantial degree of monetary stability in situations like this one where there was 'bank freedom, multiple competitive note issuers and the absence of any government-sponsored "lender of last resort"' (Dowd, chapter 1 in this volume, p. 2). Unlike the classic cases of free banking, Northeast China lacked a single metallic monetary standard and the major banks in the region were official banks of local or foreign governments. Nonetheless, in the absence of a monopoly monetary authority, even these official banks were subject to market pressures and were forced to behave like private banks operating on specie standards, thereby giving rise to notable parallels with some of the classic cases of free banking elsewhere.

This chapter describes the key elements of the monetary system in Northeast China, then explores parallels with very different cases of free banking

1 The significance of the different names is explained in McCormack (1977: 2–4).

episodes, notably those of Scotland in the early eighteenth century and New England in the early nineteenth century. The discussion focuses particularly on the effort in 1917 by the dominant regional Chinese government, the regime of the warlord, Zhang Zuolin (Chang Tso-lin),[2] to introduce a new version of the official currency of Fengtian Province, a silver-based currency known as the 'Fengtian dollar' (*feng piao*), in an effort to bring stability and order to the region's financial markets. This effort met with substantial success for a period of four, and arguably eight, years despite (or perhaps because of) vigorous competition with gold-based yen notes issued by the Japanese-owned Bank of Chosen. In 1925 Zhang Zuolin ended the *feng piao*'s metallic link and ordered the Official Bank of the Three Eastern Provinces to print increasing amounts of the currency to finance his military ventures. The *feng piao* then depreciated and by the time of Zhang's assassination in 1928, its value had collapsed to about 4 per cent of its 1917 value. The conclusion of this analysis is that as long as the *feng piao* was administered in accordance with market principles it achieved its goals of stability and integration of the regional economy, including mutually supportive interactions with the Japanese banks, as well as with the diverse multitude of Chinese and foreign monetary institutions. The *feng piao* failed only after the exigencies of war finance took precedence over its earlier link to specie. It is also apparent that the monetary system of Northeast China was able to function despite disruptions caused by the existence of two metallic monetary anchors, silver and gold, and to some extent a third, copper, and a confusing diversity of currencies, because of its active and competitive currency exchange markets.

International competition for control of Northeast China

For free banking to exist, two conditions must be present. First, the economy and financial institutions must be advanced enough to support modern banks and the widespread use of paper currency. Second, there must be no official monopoly bank or agency exerting regulatory control over the banking system. As noted in the case study of Fuzhou by Selgin (1992; chapter 8 in this volume), the second condition existed throughout China in the early twentieth century, a period of central government decay and disorder. By the end of the nineteenth century, China's Qing dynasty had

2 Romanisation of Chinese characters follows the pinyin system, with common alternate renderings in parentheses.

been weakened by decades of civil war, foreign invasion, and social and political unrest. In 1911, the dynasty was overthrown, to be replaced in 1912 by the Republic of China. The new republic, however, soon fell into disarray, and the country entered a period of fragmented and unstable government by regional military commanders – warlords – nominally on behalf of the national regime. In the Northeast, the most successful commander was Zhang Zuolin, who rose from origins as a bandit leader and in 1916 was named Governor of Fengtian Province, today's Liaoning. Over the next several years, Zhang extended his civil and military control over the other two provinces of the Northeast, Jilin (Kirin in Japanese) and Heilongjiang (McCormack 1977: 32–33). Although Zhang's position as governor was primarily due to the strength of his army, he endeavoured to administer the Northeast efficiently and to support economic growth. His administration employed well-educated and experienced local officials who carried out the functions of civil government, including efforts to stabilise the chaotic monetary situation that prevailed at the time (Suleski 2002: 33–54).

Russia acquired a major interest in Northeast China in the 1890s, when the faltering Qing dynasty agreed to allow the government of the Czar to construct and operate two key railways in Chinese territory. The two rail lines formed a great 'T', with the Chinese Eastern Railway running from the western border of the northernmost province, Heilongjiang, east to the Russian port of Vladivostok on the Pacific, while the stem of the 'T' was a branch line extending south from the city of Harbin, down through the Central Plain of the Northeast, to the Chinese port of Dalian (Dairen in Japanese), at the southern tip of the Liaodong Peninsula (see the map in Figure 12.1). The two railways provided crucial access to the rich agricultural and mineral resources of the Three Eastern Provinces and stimulated a surge of growth, supported by a massive influx of labour in the form of waves of migration from other parts of China, particularly the neighbouring provinces of Shandong and Hebei.[3]

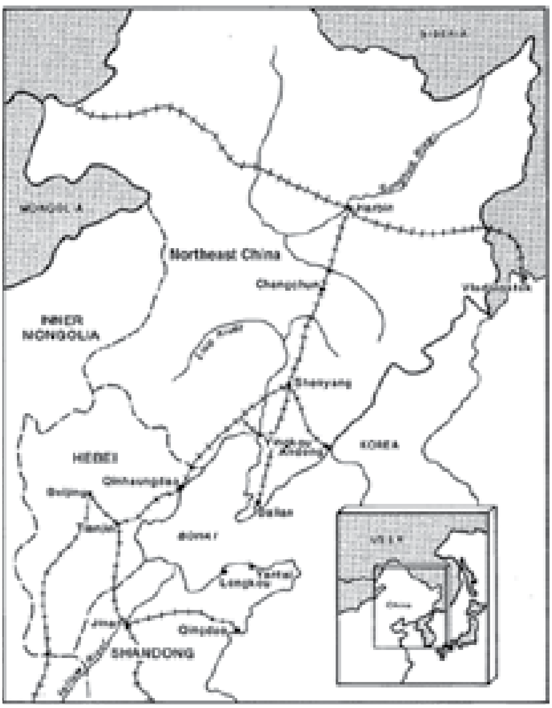
Japan, meanwhile, after initiating a programme of rapid modernisation under the Meiji emperor beginning in 1868, had defeated the Qing dynasty in the Sino-Japanese War in 1895. China's humiliating loss opened the way for Japanese plans to dominate Korea and eventually gain access to Northeast China and its abundant raw materials.[4] Russia's railway expansion clashed

3 The migration is described in Gottschang (1987: 461–90).

4 For Japanese plans regarding Northeast China, see Matasusaka (2001: ch. 2).

with Japan's ambitions and gave rise to the Russo-Japanese War of 1904–05, which ended in victory for Japan. The terms of the peace treaty assigned to Japan the leasehold rights over the portion of the southern branch of the Chinese Eastern Railway (CER) between the cities of Changchun and Dalian. This line was renamed the South Manchuria Railway (SMR), which became the main agency for Japanese colonial development in the Northeast.[5] In one of its annual reports, the SMR described itself as 'the carrier of the light of civilization into Manchuria' (SMR 1936: 68). The SMR came to operate a wide range of modern enterprises including hotels, harbours, a shale oil distillation plant, the Anshan iron works and a host of public institutions including schools, hospitals and research facilities (SMR 1931: 70).[6]

Figure 12.1 North China and Northeast China: railways and cities c. 1920 (1970 boundaries)



5 The founding and organisation of the Japanese South Manchuria Railway Company are described in SMR (1931: 97–101).

6 The activities of the SMR are described in detail in the six 'reports on progress in Manchuria.' The SMR's contributions to the 'secondary expansion process' are discussed by Chou (1971: 81–82).

Despite vigorous efforts by Japan's aggressive military and business interests within the leasehold territory and the SMR railway zone, the population of the Northeast remained overwhelmingly Chinese and grew relentlessly with massive immigration from North China. In 1910 the population of the Northeast was estimated to be 14.9 million people; by 1929, it was reported by the research office of the SMR to be just over 29 million, of which the Japanese population accounted for only 225,819 (Sakatani 1980: 8). Chinese enterprises played important roles in the modernisation of the economy, constructing and operating railways, mines and factories. Most commerce, agriculture and light industry were Chinese-owned, and the civil government and military forces in all but the SMR and leasehold areas were Chinese.

Banks and currencies

The financial system of Northeast China was heir to China's long history of money and banking, complicated by the presence of foreign modern banks that officially represented the governments of Russia and Japan in the railway zones and that issued their own currencies. Even within the railway zones, however, the Russian and Japanese banks did not hold monopoly power and were required to interact with the Chinese banks and the currencies that they issued under the authority of the three provincial governments.

The evolution of banking in China includes the well-known case of the Shanxi banks, the most prominent of the traditional 'draft banks' (*piao-zhuang* or *piao-hao*). The Shanxi banks, which could merit their own chapter as an example of private actors developing a highly sophisticated system of financial institutions through the operation of the market, were created in the early nineteenth century by merchants from the western province of Shanxi to allow them to transfer funds between distant cities by draft (*hui-piao*), rather than the risky and arduous transportation of silver. By the late nineteenth century, around thirty Shanxi banks operated branches in most major Chinese cities, including in the Northeast, and performed many of the functions of modern banks, including holding deposits, making loans, and holding and transferring government funds (Yang 1952: 81–90).

Within the cities, as described by Selgin (1992) for Fuzhou, banking functions were provided by traditional local banks, known by various terms such as 'silver shops' (*yin-hao*) or 'money shops' (*qian-zhuang*, *qian-pu*, *qian-qu*, *qian-hao*, *qian-tian*), which carried out money exchange, note issue and lending services, as well as acting as intermediaries with the Shanxi banks. As Chinese trade with the Western powers expanded following China's defeat in the Opium Wars of the mid nineteenth century, modern banks were established by foreign interests, particularly British, in the 'Treaty Ports' – including Fuzhou – where they were not subject to Chinese laws. The earliest modern-style Chinese banks emerged at the end of the nineteenth century and in the early twentieth century (Yang 1952: 81–90).[7]

At the beginning of the twentieth century, the money supply in the Northeast reflected the diversity of monetary traditions and financial institutions that characterised financial markets throughout China. The major traditional currencies were silver 'shoe' ingots, known as *yuan bao* or *yin ding*, and the copper coinage which originated as the ancient form of round copper 'cash' or *qian*, commonly strung on cords through square holes in their centres and exchanged in units of 'strings' or *tiao* (Sakatani 1980: 20–21; Yang 1952: 26–27; CER 1981: 316–17). The traditional currencies were not standardised. The silver ingots came in different sizes, weights and quality of silver. Their value was given in terms of *liang,* Chinese ounces of pure silver, rendered in English as 'tael', a term of possible Malay origin (CER 1981: 317). While the *liang* was officially set at 37.8 grams by the central government of China, the *tael* varied in definition among the major ports and commercial centres (CER 1981: 318; Yang 1952: 47; Sakatani 1980: 24, 32). The value of a string of copper cash was determined by its content of copper, causing transactions to often involve weighing the strings (Yang 1952: 35).

Modern Chinese currencies included silver dollar coins (yuan), silver subsidiary coins (jiao) and modern copper coins without holes known as *tong yuan* or *tong zi*. The relationship between the copper and silver coins fluctuated with the market values of the two metals (CER 1981: 316–17; Sakatani 1980: 20–21). Paper currency was issued by official and private Chinese banks in the region, the most important based on the modern silver coinage and generally referred to as *yang piao*, or 'foreign notes'. Notes called *guan tie*, based on strings (*tiao*) of traditional copper cash, were widely used in rural areas and were often called 'paper *tiao*'. Farmers preferred them to the modern silver-based notes because of their greater usefulness for smaller value transactions. Notes based on the subsidiary silver coinage, called *xiao*

7 For a recent description of the role of silver and modern silver coins in the money supply, see Ma and Zhao (2020).

yang qian ('small foreign coins'), were issued primarily for local use by some merchants and the traditional Chinese banks or 'money shops' (Sakatani 1980: 22–25). Recently published research by Debin Ma and Liuyan Zhao (2020) finds that the Chinese banks in major commercial centres participated in an active inter-regional arbitrage market for the modern silver dollar coins, whose market value relative to the national standard was assessed in Shanghai on a daily basis. An interesting point here is that while the national government did not have a central bank and was unable to require compliance with its regulations, banks throughout the country adhered to the national standard for the silver dollar, which was effectively enforced by private bankers' associations (Ma and Zhao 2020: 535–36).

The main difference in the money supply of the Northeast from the rest of China was the presence of large quantities of Russian rubles and Japanese yen. The Russo-Chinese Bank, later renamed the Russo-Asiatic Bank, was created in Saint Petersburg in 1896, following a joint diplomatic initiative by Russia and France, and supported by leading French financial institutions. After negotiations with the Qing government, which contributed substantial deposits, the bank was assigned the concession for the construction of the Chinese Eastern Railway (CER 1981: 35). Along with providing credit, remittance and exchange services in the railway zone, the bank issued the Russian ruble in the form of a gold coin, a paper credit ruble backed by gold, and subsidiary silver and copper coins. As the Russian presence increased in size and economic activity, rubles became widely used, and after 1903 became the dominant currency of commerce in the area along the Chinese Eastern Railway and most of Heilongjiang Province, until the Russian revolution of 1917. Their value plummeted in the subsequent Bolshevik hyperinflation, which ended with the restoration of the ruble's link to gold. After several years of confusion and uncertainty, the new Soviet regime created the Far Eastern Bank (also known as Dalbank) to manage the financial interests of Soviet Russia in Northeast China. Under the Dalbank, new gold-based ruble notes were issued and gained broad acceptance, particularly in the Chinese Eastern Railway zone, but did not regain the standing of the pre-revolution notes (CER 1981: 324–25; Sakatani 1980: 28).

The first major Japanese bank to operate in the Northeast was the Yokohama Specie Bank, which began issuing silver-based yen notes at its office in the port city of Yinkou in 1903. The Bank of Chosen (Korea), which was founded in Korea with Japanese funding for the purpose of supporting Japan's colonial administration and business interests, opened offices in the major cities of the Northeast and began issuing gold-based yen notes as trade with Korea expanded following completion of the link between the rail systems of Northeast China and Korea in 1911. In 1917 the Japanese government decided that the Bank of Chosen would be the sole issuer of gold-based yen notes in the Japanese controlled territories, although the Yokohama Specie Bank continued to issue silver-based yen notes (Sakatani 1980: 27–28). While the Bank of Chosen and the Yokohama Specie Bank operated on behalf of and with the support of the Japanese government, as many as fifteen other Japanese banks were also established in the Northeast, most significantly the Shoryu Bank, which was backed by powerful private financial interests in Japan (Sakatani 1980: 41–45).

The most important Chinese modern-style banks included the official bank of each province: the Three Eastern Provinces Bank for Fengtian, originally founded in 1905 as the Fengtian Government Bank; the Jilin (Kirin) Provincial Government Bank, founded in 1898; and the Heilongjiang Provincial Government Bank, founded in 1908. Each provincial bank provided general banking services for commerce in its area, including pawnbroking, currency appraisal and the issuance of drafts, as well as handling government funds. They were also tasked with addressing the problem of currency shortages by issuing notes and coins. In their early years, a large share of the currency issued by the Jilin and Heilongjiang Provincial Banks were *guan tie* notes, representing the strings (*tiao*) of copper cash which were the medium most widely used among the largely rural population. Large quantities of *guan tie* notes were required by grain merchants in order to procure the annual harvest from wheat and soybean farmers (CER 1981: 333–36). As commerce expanded, all the provincial banks issued modern-style silver-based notes of the official Chinese dollar (yuan) in large-denomination and small-denomination notes (*da yang piao* and *xiao yang piao*, respectively). Other prominent Chinese banks were the semi-official Bank of China and the Bank of Communications, which both maintained branches in the major cities of the Northeast.

In 1905, the government of Fengtian Province began substantial issues of notes in subsidiary denominations of the yuan (dollar) – 1 jiao (10 cents), 2 jiao and 5 jiao – which were most useful for the daily transactions of the general population (Suleski 2002: 39–41). The values of the precious metals fluctuated considerably after the outbreak of World War I and these fluctuations led to considerable fluctuations in the exchange rates of the silver-based currencies relative to the gold yen (Suleski 1979: 649; see Table 12.1).

Table 12.1 International gold and silver prices and Fengtian dollars per 100 yen

Year	*Gold price*	*Silver price*	*FD per 100 yen*
1912	20.65	0.640	120
1913	20.64	0.584	123
1914	20.72	0.503	136
1915	20.72	0.561	147
1916	20.72	0.758	121
1917	20.72	0.899	100
1918	20.72	1.019	97
1919	20.70	1.336	93
1920	20.68	0.655	100
1921	20.58	0.663	139
1922	20.66	0.643	135
1923	21.32	0.650	139
1924	20.69	0.692	138
1925	20.64	0.692	168
1926	20.63	0.538	359
1927	20.64	0.583	957
1928	20.66	0.577	2,510
1929	20.63	0.488	5,683
1930	20.65	0.330	10,036

Notes: Gold and silver average annual prices per ounce in US dollars (kitco.com). Fengtian dollar: average annual Fengtian notes per 100 gold yen (1912–16: 'small-coin' (*xiao-yang*) notes; 1917–30: 'large-coin' (*da-yang*) notes, *feng piao*); 1912–16, Suleski (1979: 649); 1917–19, Suleski (2002: 43–46); 1920–30, McCormack (1977: 282, fn 59).

The feng piao

In 1917, the Fengtian government carried out an interesting monetary experiment. It introduced a new version of its currency, known as the Fengtian dollar, or *feng piao*, issued by the Official Three Eastern Provinces Bank. The new currency was carefully planned and differed from the previous version in several respects. Unlike the old notes, which were predominantly 1 jiao (10 cents), 2 jiao (20 cents), and 5 jiao (50 cents) denominations, the new *feng piao* notes were issued in 1 yuan, 5 yuan and 10 yuan denominations. The Fengtian officials initially set the value of the *feng piao* to be equal to the gold-based yen notes that predominated in the Japanese controlled areas as a way of engendering public confidence in the new currency. The new notes were denominated in units of silver rather than gold. In particular, they were denominated in units of the national silver dollar, which was itself based on the accounting standard Shanghai *tael* (see Suleski 2002: 45–46; for the definition of the standard silver dollar, see Ma and Zhao (2020: 516)). The exchange rate between the two currencies, therefore, remained subject to price variations in the international markets for gold and silver and could not be permanently fixed at parity.

Finally, contrary to the norm in Northeast China and indeed China generally, the new notes did not promise redemption in specie or coin.[8] Instead, the bank sought to manipulate the amount of notes in circulation so as to stabilise the *feng piao*'s market value against the standard silver dollar. If the bank wished the *feng piao* to appreciate against the standard dollar coin, it would sell silver for *feng piao* currency, and so reduce the *feng piao* currency supply in circulation; and conversely, if the bank wished the *feng piao* to depreciate against the standard dollar coin, it would buy silver for *feng piao* currency, and increase the *feng piao* currency supply in circulation. Key to the success of the new monetary arrangement was for the bank to maintain a large silver reserve. All of the parties involved in the financial markets of the Northeast – Chinese and Japanese officials, bankers, merchants and currency traders – considered the value of the *feng piao* to be dependent on the size of its silver reserves. The price that currency brokers were willing to pay for *feng piao* was determined by the price at which they could be sold on the open market. That price in turn depended on public knowledge about the currency's silver reserves, which were closely monitored by the financial community, particularly the Japanese chambers of commerce (Suleski 2002: 42–49). The Fengtian civil officials, therefore, went to considerable pains to establish a large and well-publicised reserve base of silver in preparation for the introduction of the new currency. Their efforts were evidently successful, as *feng piao* quickly became the most widely accepted Chinese banknotes throughout the region, while other currencies were always available, including silver-based yuan notes from the provincial banks

8 Suleski (2002: 47–49) describes the non-convertibility issue at some length and includes a photo (p. 104) of a 1922 *feng piao* note, with the inscription, in English as well as Chinese: 'This note is to be accepted at Tientsin or Peking in payment of remittance for the equivalent of Shanghai kwei yuan taels.' This statement is not a commitment to deliver a fixed amount of specie of a specified weight and fineness.

of Jilin and Heilongjiang, gold-based yen notes from the Bank of Chosen, and silver-based yen notes from the Yokohama Specie Bank, all of which guaranteed redemption in coin or specie. Even Japanese firms, despite their continued reservations about Chinese currency, inevitably found themselves engaged in substantial amounts of business conducted in *feng piao*.[9] As of December 1927, well into the currency's terminal decline, *feng piao* still made up an estimated 72 per cent of all Chinese banknotes in circulation in the Northeast (McCormack 1977: 194).

Unfortunately for the stability of the *feng piao*, Zhang Zuolin's ambitions were not confined to control of the Northeast. He hoped to achieve national leadership and was continually involved in schemes and cliques with other warlords, sometimes resulting in costly warfare (McCormack 1977: 45). In 1922, Zhang was defeated in a conflict in North China known as the First Fengtian–Zhihli War. The war led him to increase his demands for finance from the Three Eastern Provinces Bank, which printed more currency accordingly; the number of *feng piao* notes issued rose from 30 million in 1921 to 60 million in 1924 (Suleski 1979: 658–59). As public confidence in the regime wavered, the average annual rate of exchange for 100 gold yen weakened from 100 *feng piao* in 1920 to 139 *feng piao* in 1921 (McCormack 1977: 89–90).[10] Over the next three years, however, the *feng piao* to yen rate stabilised and did not fall again until 1925, in the wake of a Second Fengtian–Zhihli War, as Zhang struggled to deal with a rebellion by one of his former subordinates (see Table 12.1). Although Zhang managed to suppress the rebellion, his subsequent efforts to strengthen his military position led to demands for funding that far exceeded those of earlier years. In 1925 the amount of notes issued by the Bank of the Three Eastern Provinces more than doubled in a single year, followed by further massive note issues unsupported by additional silver backing (Suleski 1979: 659). By this point the link between the currency and its silver reserve base had been severed and the exchange rate weakened to 168 in 1925 and 359 in 1926, as it became clear that the *feng piao* had become a purely fiat currency (see Table 12.1).

9 On the establishment of the *feng piao*, see Suleski (2002): 38-49; Suleski (1979): 648-652

10 The relationship between public confidence in the *feng piao* and its silver reserve base is particularly evident in the short-term fluctuations of the currency's exchange rate with the yen during Zhang's military expeditions. It was well known that when Zhang's troops operated outside the Northeast, their expenses had to be paid in silver. As a result, from an exchange rate of 116 *feng piao* per 100 yen in January of 1922, the rate fell to 147 in April, as Zhang's army moved into North China, even before it was defeated.

The trajectory of the *feng piao* after 1920 raises two questions. First, how was stability – albeit at a lower level – achieved after 1921 in the face of Zhang's military funding demands, and why did people continue to accept it despite their growing loss of faith in the regime? Second, why did the *feng piao* not return to approximate parity with the gold-based yen? The answer to the first question is that while Zhang pursued his military schemes, his civilian officials were implementing measures to strengthen the Northeast economy, including the development of new railway lines and the expansion of commerce and industry. Sweeping administrative reforms rationalised fiscal practices and increased government revenues sufficiently to retire the province's outstanding debts and to record a positive treasury balance of 10 million yuan by 1921. In 1923, despite Zhang's defeat in the previous year, and ceaseless demands for more military funding, increased revenues combined with skilful reordering of spending priorities resulted in a budget surplus of over 8 million yuan (McCormack 1977: 32, 90–91) .

The answer to the second question appears to lie in the international silver market. The price of silver reached a high of $1.34 (USD) per ounce in 1919, the same year in which the *feng piao* rate per yen achieved its strongest level of 93 (see Table 12.1). In 1920 the international price of silver dropped by half, to $0.66, and experienced little movement for the next five years. The *feng piao* returned to parity with the yen in 1920, then dropped to 139 in 1921 and remained stable for the following three years. In light of the increasingly efficient integration of China's market in monetary silver, demonstrated by Ma and Zhao, the lower but stable exchange rate between the *feng piao* and the yen from 1921 to 1924 appears to primarily reflect the international fall in silver prices over the same period, while gold prices remained nearly stable. In other words, the failure of the *feng piao* to maintain parity with the gold-backed yen was not caused by weakness in its backing, nor by the excessive military spending by Zhang Zuolin, but by changes in the international market for silver.

Zhang was finally assassinated by officers of the Japanese army in June 1928, by which time the exchange rate had fallen to 2,510 *feng piao* for 100 gold yen. After Zhang's death the value of the *feng piao* continued to decline, reaching an exchange rate of 10,036 *feng piao* to 100 yen in 1930 (see Table 12.1). Following Zhang's death his son Zhang Xueliang, the 'Young Marshal', assumed his leadership role until he and his army were driven out of the Northeast by the Japanese Army in 1931.

It is worth noting that after the collapse of the *feng piao*, although the Bank of Chosen no longer faced serious competition, it did not significantly expand the circulation of the gold-backed yen. Multiple currencies continued to be used in the Northeast, including the greatly devalued *feng piao*, until 1932, when Japan created the puppet state of Manchukuo, which encompassed all of the Three Eastern Provinces. Manchukuo established a central bank, instituted a new currency, the Manchukuo yuan, and went to considerable effort to eliminate all other currencies in the region (Myers 1982: 224–27).

Parallels with other free banking experiences

A striking example of market competition in the Northeast was the appearance of the practice known in Scotland's free banking period as 'note duelling'. Numerous reports in Japanese newspapers published in the Northeast beginning around 1913 described organised efforts by Japanese merchants to weaken the Fengtian currency by presenting accumulations of Fengtian notes to Chinese banks and demanding payment in silver or copper in return (Suleski 2002: 41). Similar episodes occurred in early eighteenth-century Scotland, where banks had mounted note duels against competitors to run them out of business. According to Randall Kroszner, this ever-present danger obligated banks to keep a prudent level of reserves on hand, thereby increasing public confidence in their own notes and in the currency system as a whole (Kroszner 1995: 5–7).

When seen from Kroszner's perspective, what at first appears to have been merely a blatant attack by Japanese merchants on Chinese banks may also be interpreted as a measure of market discipline that contributed to the careful – and successful – preparations for the introduction of the new Fengtian notes in 1917 with a well-publicised reserve base of silver. It is also noteworthy that the reserve base was substantially strengthened by a loan of three million yen from the Bank of Chosen (McCormack 1977: 32), indicating that the bank's officials, if not all Japanese merchants, believed that a stable Fengtian currency would benefit Japanese (or at least the Bank of Chosen's) interests as well as those of the Chinese population. This action on the part of the Bank of Chosen is a good example of the various forms of 'mutual cooperation' that evolved in some well-known cases of free banking that began as fierce competition (see also Dowd, chapter 1 in this volume, p. 4).

A more important parallel was the key role of currency exchange markets in Northeast China, as in some free banking cases in the early nineteenth-century US. At that time, banknotes could generally only be redeemed at full value in the community where the bank that issued them was located, and were subject to a discount in other localities (Rolnick et al. 1998). The disparity created opportunities for note brokers to buy up notes at their discounted rates, transport them to their originating banks, and redeem them for their full value (see Gorton and Mullineaux 1987: 458–59; Knodell 1988). This practice initiated the evolution of the well-known Suffolk system in New England, where 'city' banks in Boston attempted to suppress competition from outside 'country' banks by refusing to accept their notes. The unintended result was the emergence of a lively and profitable brokerage market in 'country' banknotes, causing some Boston banks to change their policy and enter the market themselves. In 1814 the New England Bank added to its note brokerage business the possibility for country banks to receive full value for their notes in return for maintaining a non-interest-bearing deposit at the New England Bank. When the Suffolk Bank was chartered in Boston in 1818 it followed the New England Bank's model in its note brokerage operations, as did other Boston 'city' banks, resulting in a reduction in the discount on country banknotes, while leaving in place the necessity to redeem growing volumes of the notes. The Suffolk Bank responded in 1826 by creating a clearing-house system for participating city banks, which were required to maintain non-interest-bearing deposits at the Suffolk, in return for redeeming their holdings of country banknotes at par. The Suffolk also introduced the feature of net-clearing, an innovation that greatly improved the efficiency of the banking system (Rolnick et al. 1998: 12–14).

Currency exchange was an essential business in China even before the opening of trade with Western markets because of the different traditional metallic currency bases and the wide range of local standards. Many Chinese financial institutions began as exchange shops and continued that function into the modern era. Currency exchange markets were crucial in Northeast China, where notes issued by even the official provincial banks typically traded at a discount in other provinces (CER 1981: 331). In addition, normal business necessitated dealing with Japanese and Russian coins and notes as well as those common to the rest of the country. Russian administrators of the Chinese Eastern Railway described the multidimensional exchanges required of grain merchants in the northern province of Heilongjiang: agents purchasing the massive annual crop of soy beans and wheat had to pay the farmers in copper cash or the *guan tie* notes based on strings of copper cash, or small-denomination silver-backed notes (*xiao yang piao*); they then sold the produce to a warehouse in Vladivostok or Dalian for gold-backed rubles, gold- or silver-backed yen, or silver-backed *feng piao*.[11] One Russian observer commented that, 'one of the particular consequences of the unsteadiness of monetary circulation is represented by an endless number of special enterprises in the country, which are exclusively engaged in the money exchange business' (CER 1981: 345).

Here again, a feature of the monetary system in the Northeast that was generally considered to be a drain on the economy, can be seen in the light of free banking experience elsewhere as a crucial element for financial integration through market forces. In addition to adjusting for the vagaries of normal business operations and the differing levels of responsibility on the part of provincial banking officials in charge of currency issues, the currency exchange markets served to mediate the effects of the metallic price shocks that repeatedly buffeted the system during World War I. Post 1917, the value of the Russian ruble plummeted following the Bolshevik revolution and caused major difficulties for the economy of Heilongjiang Province. The ruble was largely replaced, however, through the currency exchange markets, by increased use of the yen, the silver notes (*da yang piao*) issued by the Heilongjiang and Jilin provincial banks, and the new *feng piao* (CER 1981: 324–25).

Conclusions

At first sight, one might have thought that the financial markets of early twentieth-century Northeast China would not constitute a viable breeding ground for free banking. The Northeast did not enjoy the benefits of a stable national government, a single monetary base metal, a single currency, uniform standards or an effective regulatory environment. Given the diversity of monetary media, the interaction of traditional and modern institutions, and the collision of the political interests of three countries, two of which experienced violent regime change in the period under review, monetary chaos was unavoidable. It is, therefore, remarkable that the financial markets of the region were able to provide the lending, credit, exchange and other services necessary to support agricultural, industrial and commercial activities that spanned great distances within the Northeast and were heavily engaged in international trade.

11 The cereal trade is described in detail in CER (1981: ch. 6).

While the major currency-issuing banks of the region did not share the purely private status of those in most free banking experiences, the history of the *feng piao* demonstrates that 'they issued their own notes under competitive conditions … operating on a commodity standard, in the absence of a central bank' (Dowd, chapter 1 in this volume, p. 6). The episodes of note duelling between the Fengtian notes and the yen, and the collapse of the value of the *feng piao* after 1924, vividly show that this was 'a legal environment in which the public are free to accept or reject bank currency' (Dowd, chapter 1 in this volume, p. 6). The introduction of the *feng piao* was a serious and sophisticated attempt to bring order and integration to the financial markets of the Northeast. It was carefully planned following market principles, most importantly placing top priority on the establishment of a silver monetary anchor. In the first four years of its existence the *feng piao* achieved the goal of maintaining approximate parity with the gold-backed yen. It was also well on its way to becoming a uniformly accepted medium of exchange and unit of account across the region, including within the Japanese business community. Ironically, in light of their earlier assaults on the Fengtian currency, Japanese merchants and officials bitterly criticised Zhang Zuolin's reckless behaviour in the early 1920s because they stood to suffer serious financial losses from the depreciation of the *feng piao* (McCormack 1977: 174–75). Although the *feng piao* lost nearly 40 per cent of its value relative to the gold-based yen in the period from 1921 to 1924, the decline appears to have been primarily caused by price movements in the international market for silver.

The Northeast China experience of free banking supports two tenets of the free banking literature: first, that in an environment dominated by market pressures, competing banks can bring about relative monetary stability; second, that when governmental, non-market priorities take control of currency issue, the result is currency collapse. In short, the experience of Northeast China in the early twentieth century demonstrates both the ability of market competition to achieve monetary stability and the potentially catastrophic consequences of abandoning a market-based monetary system.

We should also see the Northeast China free banking experience against the backdrop of contemporary national developments in monetary and banking standards. As Ma and Zhao (2020: 536) point out (my emphasis):

> The system of Chinese bank note issuance was largely run on a model of *free banking* with multiple public and private banks, Chinese or foreign, *issuing silver-convertible banknotes* based on a reputation mechanism.

Their work suggests that improvements in banking (including the spread of Western banking practices and the increased use of bank-issued currency), insurance (which allowed specie movements to be insured), rail transportation (which drastically lowered transportation costs) and telegraphs and communications (which facilitated the rapid spread of information) led to major improvements in Chinese monetary and banking integration, of which the Northeast China experience, which was barely covered in their study, is an example. They attribute the take-off to this integration process as occurring when the rest of the world was engulfed in the turmoil of World War I. Ma and Zhao (2020: 537–38) also observe

> Throughout the whole tumultuous period in our sample, the years 1898–1911 were relatively stable under a single government until the collapse of the Qing dynasty in 1911 which heralded a period of economic and political disruption. But it was precisely from the 1910s that Chinese monetary and financial transformation took off, and continued throughout the 1920s and 1930s in spite of disruptions from warfare and revolution. …
>
> [This] transformation occurred in a context of institutional revolution, championed by China's civil and commercial group from below, during the country's relatively rare political decentralization phase in the Beiyang [warlord] period. It was ironic that monetary fragmentation that had actually prevailed under China's traditionally highly centralized political regime was gradually overcome in an era of political decentralization and disintegration during the early twentieth century.

In short, the political decentralisation of the period would appear to have created a fertile breeding ground for successful free banking, both in Northeast China and across the country as a whole. However, it is also clear that much more work needs to be done on the various Chinese historical experiences of free banking.

13 FREE BANKING IN PERU

Luis Felipe Zegarra

This chapter examines the experience on free banking in Peru in the 1860s and 1870s. The case of Peru is interesting because it was the most liberal free banking system in Latin America for more than a decade, and one of the most liberal systems in the world at the time. In Peru, corporate banks could operate as freely as any other corporation and could even issue as much paper currency as they wished without state-imposed capital adequacy or specie reserve requirements, subject only to the constraints imposed by the operation of the silver standard. Banks of issue and discount operated under this liberal legislation from 1862 and with considerable success. In 1873, however, the Peruvian government started a process of gradual intervention into the banking system, which led to the suspension of payments in 1875, the rescue of some banks of issue by the national government in 1877 and the prohibition of all private banknote issues in 1879. The experience shows that freedom of note issue did not cause financial instability in Peru. When the government let banks operate freely, banks maintained sufficient cash reserves to maintain the convertibility of their notes. However, when the government intervened in the banking sector to borrow from it, it weakened the banks to the point where they were soon unable to maintain convertibility. The government then monopolised the note issue and ended the free banking experiment.

The pure free banking period: the first years

The Peruvian economy entered into a period of expansion in the late 1840s, largely due to a boom in guano production (see Table 13.1). After around two decades of commercial stagnation, exports increased from 6.3 million soles in 1845 to 9.6 million soles in 1850, and 31 million in 1860.[1] The rapid growth of exports largely followed the evolution of exports of guano, the

1 See the appendix for a description of the Peruvian sol and the currency system of the period.

main export product of Peru in the mid nineteenth century. The Peruvian government benefited greatly from the guano boom, because guano was the property of the state. From the late 1840s, the guano boom had a positive impact on fiscal revenues, which increased from 7.8 million soles in 1850 to 21 million soles in 1860.

Table 13.1 The Peruvian economy, 1840–75

Year	*1840*	*1845*	*1850*	*1855*	*1860*	*1865*	*1870*	*1857*
Foreign commerce								
Exports	5.21	4.80	7.57	10.31	35.00	25.68	21.00	19.00
Imports	4.68	5.10	6.00	9.01	15.00	15.00	12.00	16.00
Trade balance	0.53	−0.30	1.57	1.30	20.00	10.68	9.00	3.00
Trade balance (as % GDP)	0.7	−0.4	1.6	1.1	16.5	7.2	4.9	1.8
Fiscal accounts								
Public revenues			7.76	14.47	21.05	16.98	47.53	34.21
Public spending			5.69	13.17	21.12	21.59	78.32	56.66
Fiscal balance			2.07	1.30	−0.07	−4.61	−30.79	−22.45
Fiscal balance (as % GDP)			2.1	1.1	−0.1	−3.1	−16.6	−13.7
Public debt			14.17	51.51	33.48	38.65	98.55	241.81
Public debt (as % GDP)			14.3	42.4	27.6	26.1	53.3	147.4
Banking sector								
Credit	0.00	0.00	0.00	0.00	0.00	5.45	12.99	26.81
Credit (as % GDP)	0.00	0.00	0.00	0.00	0.00	3.7	7.0	16.3
Deposits	0.00	0.00	0.00	0.00	0.00	2.15	8.95	11.06
Deposits (as % GDP)	0.00	0.00	0.00	0.00	0.00	1.5	4.8	6.7
Banknotes in circulation	0.00	0.00	0.00	0.00	0.00	3.37	5.27	11.38
Banknotes in circulation (as % GDP)	0.00	0.00	0.00	0.00	0.00	2.3	2.9	6.9
GDP								
Real GDP (1830=100)	125.9	142.31	158.47	181.44	189.20	207.34	257.08	249.66
Estimated nominal GDP	78.37	82.26	99.01	121.53	121.38	148.11	185.01	164.06
Period (1840–45)								
Annual growth rate of real GDP		2.5%	2.2%	2.7%	0.8%	1.8%	4.4%	−0.6%

Notes: Amounts are in millions of silver soles. For more on monetary units, see data appendix. The sources are Mitchell (1993) for foreign commerce. Original figures on foreign trade are in pesos (1840–60) and soles (1865–75). Exports and imports for 1840, 1850, 1855 and 1865 were estimated using interpolation. The figures on revenues and spending refer to actual revenues and spending and come from Tantaleán (1983). Revenues do not include loans. Information on public debt comes from Tantaleán (1983). Information on credit, deposits and banknotes comes from banks' balance sheets. Credit includes direct credit to the government. The source for real GDP is Seminario et al. (2010). Those figures are originally in constant dollars of 2000. I have converted those figures into current soles as explained in the appendix.

During colonial times, Peru had operated under a silver standard. The same regime continued after independence in 1821. Until 1863, the monetary unit was the silver peso, equivalent to 22.5 grams of pure silver. In 1863, the silver sol with the same silver content then replaced the silver peso.

It was in the Guano Era, a period of economic expansion and inflow of specie, that the first bank was created in Peru. The Banco de la Providencia had started operations by the end of 1862. Other banks were created in the following years. For several years, banks were not subject to any specific banking legislation: until 1873, banks were only subject to general commercial legislation. The Commercial Code of 1852 regulated the formation and operations of joint-stock companies; corporate banks were then subject to the general commercial legislation. This legislation was very free market oriented. In fact, corporations (including corporate banks) did not require a special charter to operate, did not have to meet state-mandated capital or reserve requirements and did not face government supervision. Instead, corporations only had to be registered in the merchant guild of the city in which they first operated. Banks could issue any amount of banknotes without state supervision or restriction. The government did not levy taxes upon banking operations or the issue of banknotes, and did not discriminate against foreign banks (Joslin 1963).

The Banco de la Providencia was created by leading merchants of Lima, and was intended to include a pawnshop or *monte de piedad*, a savings bank, an insurance company and a bank of deposits and current accounts. Soon after its creation, the bank also issued banknotes, which the public received most favourably (Dancuart 1905). By December 1865, this bank had 1.12 million soles in banknotes in circulation and these banknotes accounted for almost one-third of its total liabilities.[2]

As the operations of the Banco de la Providencia were profitable for its shareholders, other banks were soon created in its wake.[3] In 1863, the Banco del Perú started operations. This bank, founded by eight renowned capitalists, engaged in a wide range of operations, including discounting commercial notes, opening current accounts, accepting deposits, and issuing banknotes. According to Dancuart (1905: 41), the Banco del Perú's banknotes were widely accepted by the public.[4] Also in 1863, the Bank of

2 The capital was 2 million pesos.

3 García Calderón (1949) indicates that this bank made large profits. Other banks also made significant profits, which generated an incentive for the government to participate in the creation of the Banco Nacional, an unsuccessful attempt. A privately owned bank with the same name was created in 1872.

4 Two years later, a new corporation was created, under the same name of Banco del Perú, absorbing the assets and liabilities of the original bank.

London, Mexico and South America (an English bank, hereafter, the 'Bank of London') opened a branch in Lima and also issued banknotes.[5]

The creation of these banks increased the supply of funds and reduced short-term interest rates (Quiroz 1989). Before 1850, for example, interest rates for short-term loans ranged between 24 and 36 per cent per year. By 1857 interest rates ranged between 12 and 18 per cent per year. By 1862, however, banks offered discounts with rates between 8 and 12 per cent (Camprubí 1957).

Other banks were created in the following years (see Table 13.2). These included the Banco de Lima (1869), the Banco Nacional del Perú and Banco Garantizador (1872) and the Banco Anglo-Peruano (1873). Banks were also created outside the city of Lima: the Banco de Trujillo, which operated in the city of Trujillo in the northern coast of Peru, in 1871; the Banco de Arequipa, the Banco de Tacna, the Banco de Piura and the Banco de Emisión del Cerro operating in the cities of Arequipa, Piura and Cerro de Pasco, respectively, in 1872; and the Banco de Ascope, in Trujillo, in 1873. By 1873 there were twelve banks in the entire country.[6]

Banks could issue banknotes without being subject to specific government regulation.[7] Yet banks and especially their banknotes were widely accepted by the public. Dancuart (1906: 11),[8] for example, argued that 'the public … favored them [the banks of issue] with unlimited confidence, accepting their banknotes redeemable on demand, without more guarantee than the signatures of their directors.' In the case of the Bank of London, it seems that the notes issued by this bank 'were [even] accepted in preference to silver' (Joslin 1963: 88).

Over time, banking operations boomed and profit rates were high. Vicuña (1867), for example, stated that banks obtained a profit rate of 70 per

5 Dowd (1992) indicates that this British bank had a prominent role in Peru.

6 The legislation did not prohibit branching during this period. Several banks opened branches in several cities of Peru. In the 1860s, for example, the Bank of London had offices not only in Lima but also in Callao and Iquique. In the 1870s, Banco de Arequipa had offices in Arequipa, Puno and Cuzco (Camprubí 1957: 100).

7 That there was no restriction on private issue is clear from several government statements. In 1873, for example, the Prefect of the Department of Lima requested that the national government forbid the circulation of small-denomination currency. The government, however, denied the request, indicating in the supreme decree of 26 April 1873 that the state had no right to prohibit the issue of those banknotes.

8 All quotations from Dancuart (1906, 1907, 1908) and García-Calderón (1949) are translations from the Spanish.

cent in 1867 (Vicuña 1867, cited by Tantaleán 2011). Joslin (1963: 88) indicated that the Bank of London was immediately profitable:

> From the first the branch yielded a handsome profit. Deposits were attracted from wealthy and influential clients ... Encouraged by their success, the directors opened a second branch in the port of Callao, then a town of only 15,000 inhabitants, but doing a brisk trade. Their expectations were then more than justified.

Table 13.2 The banking sector, 1862–83

List of banks	*Main branch*	*Initial capital (millions of soles)*	*Year of creation*	*Year of failure*
Banco de la Providencia	Lima	0.5	1862	1880
Banco del Peru	Lima	1.0	1863	1880
Bank of London	Lima	1.0	1863	(a)
Banco de Lima	Lima	3.2	1869	1878
Banco de Trujillo	Trujillo	0.5	1871	(b)
Banco Nacional del Peru	Lima	12.0	1872	1880
Banco Garantizador	Lima	2.0	1872	1882
Banco de Arequipa	Arequipa	0.5	1872	(b)
Banco de Piura	Piura	0.5	1872	(b)
Banco de Tacna	Tacna	0.5	1872	(c)
Banco de Emision del Cerro	Cerro de Pasco	0.1	1872	(b)
Banco Anglo Peruano	Lima	n.a.	1873	1876
Banco de Ascope	Trujillo	n.a.	1873	(b)
Banco Mercantil del Peru	Lima	n.a.	1877	1880
Banco del Callao	Callao	0.5	1877	(a)
Indicators of the size of the banking sector, 1874 (in millions of soles)				
Total capital	38.7			
Total credit	27.9			
Total deposits	10.4			
Total note issue	9.1			

Notes: The sources are Camprubí (1957) for the dates of creation and the initial capital. The dates of failure come from are Camprubí (1957) and Guerra-Martiniere (1996). Original figures on capital, credit, deposits and note issue are in soles and come from banks' balance sheets published in the newspaper *El Comercio*. Figures on capital, credit, deposits and note issue are in silver soles.
(a) The Banco del Callao and the Bank of London merged in 1897 to form the Banco del Perú y Londres.
(b) These banks failed between 1879 and 1883.
(c) The Banco de Tacna continued in operations in Chile as the province of Tacna was acquired by Chile after the War of the Pacific.

The Banco de Lima also made substantial profits. This bank made a profit of 327,425 soles in 1870, one year after its creation. Considering that the capital of this bank was 1.6 million soles, the profit rate was 20 per cent. Shareholders received dividends of 16 per cent of their paid-in capital (Banco de Lima 1871). Profits were so high that the government itself tried to participate in the banking boom by creating a new bank of their own.

The Banco de la Providencia then got into trouble. On 19 February 1866, the bank refused to redeem some counterfeit banknotes that had been presented for redemption. The bank's refusal together with rumours about imprudent administration of the bank then led a run.[9] Unable to redeem notes for specie, the bank suspended payments and the police had to intervene to restore public order. That same day, the bank's notes fell to a 90 per cent discount, but the discount thereafter gradually declined. The bank announced that it would resume operations again in three months' time and in the meantime banknotes would earn a monthly interest rate of 1 per cent. On the same day that the bank suspended payments, the government appointed two controllers (Bernardo Roca-Garzón and Federico Lembecke) from among the most reputable merchants of Lima to take charge of the liquidation. The liquidation process took almost a year and was completed on 10 January 1867, by which point most creditors had been repaid in full.[10] The bank then resumed normal operations.[11]

Two years later the bank's Board of Directors and Shareholders reported that Domingo Porras, the manager of the bank, had been engaged in fraud (Banco de la Providencia 1868). Thus, the earlier rumours of maladministration had turned out to be correct. In February 1866, the fiscal auditors Lembecke and Roca-Garzón made an inventory of specie, banknotes and other assets in the vault of the bank. Among other documents, they found four Treasury notes for a total amount of 230,189 pesos. Believing that these

9 It is possible that financial uncertainty associated with war against Spain might have contributed to the suspension of payments. In 1864, Spanish ships occupied the Chincha islands, which were important for the production of guano. Chile declared war on Spain in 1865 and Peru followed suit in January 1866. The conflict would eventually escalate until the defeat of the Spanish navy on 2 May 1866.

10 Before the suspension, the obligations of the bank were 1.1 million soles of banknotes and 379,000 soles of deposits. At the end of the liquidation, on December 1866, the obligations were 26,000 and 158,000 soles respectively. According to the controllers, the bank still had sufficient funds to repay the remaining creditors (Camprubí 1957: 67–68).

11 The official position of the government, as established by the Minister of Finance Juan Elguera, was that the bank was forced to suspend its payments and settle in early 1866, because it apparently made risky loans.

documents had their face value, the auditors tried to redeem them, but two of the documents were protested, one by the Banco del Perú, and the other by the commercial house of Sesacau Valdeavellano. In addition, the cashier of the Treasury refused to pay because Porras had already signed receipts for them. The vault also contained four commercial IOUs signed by Francisco Santolaya and J. J. Larrea for a total value of 98,850 pesos, and other four IOUs subscribed by Buenaño e Hijos and Francisco Ruiz for a total amount of 98,400 pesos. When the auditors attempted to redeem those commercial notes, they found out that those documents were also fake.

In the following years, banknotes issued by the Banco de la Providencia and by other banks continued to be accepted by the public at par. In his annual report to the Ordinary Legislature of 1868, Minister of Finance Juan Elguera indicated that the foundations of the banks of issue were solid (Dancuart 1906: 146):

> They [the banks] have gained the confidence of all classes of the society, who have accepted their [notes] in preference to specie and enjoy, at the end, all the credit that one could wish for, and the confidence that their shareholders and managers inspire.[12]

Outside Lima, the banknotes issued by banks from other cities also continued to be accepted by the public. As Dancuart (1907) indicated, the banks Nacional, Lima, Peru, La Providencia, London and Garantizador in Lima, and those established in Trujillo, Tacna and Arequipa, issued increasing amounts of banknotes that were valued at par against specie, and that grew significantly relative to the banks' working capital. Those banknotes had various denominations. Banknotes were for 1 sol, 2 soles, 4 soles, 5 soles, 10 soles, 20 soles, 50 soles, 100 soles and 500 soles. Some denominations were for fractions of 1 sol, such as 20 and 40 cents.[13]

During this period, there was no consensus among Peruvians about the benefits of the unregulated private issue of banknotes. Some considered that the state should not regulate the issue of banknotes on the grounds that the public were able to make rational decisions about whether to accept or

12 Bank profits were still significant. In annual period 1869–70, for example, the Banco de la Providencia made 105,080 soles in profits. Considering that the capital was 1.6 million soles, the profit rate was 6.5 per cent (Banco de la Providencia 1870).

13 The public even divided the smaller-denomination banknotes when they were in need of smaller change (Dancuart 1907).

reject these banknotes. For example, Minister of Finance Ignacio Noboa y Benavides stated in 1864 that (Dancuart 1905: 262):

> Reduced to its simplest expression, the act of issuing banknotes is nothing more than a pure trust agreement between the establishment that makes them available and the individual who receives them. Since these documents [banknotes] are not forced circulation, whoever does not want to accept them, i.e., the person who does not have confidence in the establishment that issues them, will not take them. Thus, considered the issue in itself, there is nothing therein that authorizes to impede it; and the legislator who tries to impose a ban between the bank that offers a banknote and the individual who is willing to receive it, would proceed with as much arbitrariness and injustice as whoever intends to prohibit a promise or other any contract having in itself nothing immoral or contrary to the law.

Similarly, Manuel Pardo – businessman, merchant, bank director, Minister of Finance and eventually President of Peru (1872–76) – defended the benefits of a free-market banking sector and argued against state regulation of the banking industry. In particular, in 1867 Pardo wrote that 'the banking industry, not only by principle but also for convenience … should be free and able to operate freely'. Competition would lead banks to charge low rates and to restrict their note issue: 'The duties of the … [regulatory function] that the government exercises should be limited to requiring banks to periodically publish their financial condition, and verify the validity of the published data'. Government intervention beyond that would be counterproductive. 'The fact that banks have their dangers is indisputable. But the remedy is nought but the prudent administration of those establishments and it will not be the regulations and laws from which security will be born' (Pardo 1867: 67, 69–70).

Others, however, argued that the state *should* regulate the issue of banknotes. In 1868, Minister of Finance Juan Elguera argued for special legislation to regulate note issue even though he recognised that the public freely accepted the banks' notes. Elguera argued that (Dancuart 1906: 146 (my emphasis):

> [there was] a lack of authority in accordance with the laws, and a lack of any control by the authority. Once this requirement is established [and the interests of the public properly protected], the well-deserved regard that these establishments have won will be permanently consolidated [and]

> confidence in them will have no limits, since their operations will be carried out *under the protection and guarantee of the authorities.*

However, although Minister Elguera and others pushed for some regulation of note issue in the 1860s, they did not pursue the abolition of the system of privately owned banks of issue. They merely argued that these banks could keep competing in note issue, but that some regulation was required to avoid financial problems in the future.

The banks' published balance sheets show that the scale of banks' operations (including the issue of banknotes) expanded over time. For example, the note issue of the Banco del Perú increased from 2.04 million soles in December 1865 to 3.36 million soles in February 1869, and its discounts increased from 1.89 million soles to 3.7 million soles. The note issue of the Bank of London increased from 206,000 soles in December 1865 to 1.5 million soles in December 1870, and its discounts increased from 810,000 soles to 1.6 million soles.

The increase in note issue in the 1860s is consistent with the fact that the Peruvian economy was experiencing an inflow of specie due to the large current account and fiscal surpluses. The inflow of specie allowed banks to cumulate reserves. The total specie reserves of the Banco del Perú, for example, increased from 1.2 million soles in December 1865 to 1.9 million soles in February 1867 and 2 million soles in February 1869,[14] and those of the Bank of London increased from 525,000 soles in December 1865 to 1.4 million soles in December 1870.

Deterioration of balance of payments and the end of pure free banking

In the late 1860s and early 1870s, exports stagnated, the current account surplus declined and the state budget went into a greater deficit as guano revenues fell. The economy went into recession and the fiscal deficit, which had been 4.6 million soles in 1865, soared to 31 million soles by 1870.

The note issue of the banks of Lima increased from 5.3 million soles in 1870 to 9.4 million soles in 1872, but then declined to 7.8 million in 1873. The Banco del Perú reduced its banknote circulation from 3.37 million soles in February 1869 to 1.9 million in August 1873. The Bank of London increased its note issue

14 Cash includes specie and banknotes issued by other banks stored in the vault of the bank.

from 498,000 soles in January 1869 to 1.5 million soles in December 1870 and then remained around that level for the next four years. The Banco de Lima note issue declined from 1.6 million soles in December 1870 to 1.1 million soles in August 1873, and the Banco de Trujillo increased its note issue from 110,000 soles in December 1871 to 327,000 soles in July 1873.

Over this same period, the banks' reserve ratios fell sharply as specie left the system. For the Bank of London, the ratio of cash to banknotes declined from 255 per cent in December 1865 to 60 per cent in August 1873. For the Banco de la Providencia, the same ratio fell from 138 per cent in December 1867 to 67 per cent in December 1871. The Banco del Perú saw its ratio of cash to banknotes decline from 103 per cent in March 1868 to 36 per cent in August 1873, and the Banco Nacional saw its cash to notes ratio decline from 55 per cent in December 1872 to 25 per cent in August 1873.

Similarly, cash holdings as percentage of banknotes and deposits fell over time. Across the four Lima banks, cash holdings fell from 88 per cent in December 1866, to 74 per cent in December 1872. For the Bank of London, cash holdings represented 103 per cent of banknotes plus deposits in December 1865, but only 26 per cent in August 1873. For the Banco de la Providencia, cash holdings declined from 83 per cent of banknotes plus deposits in December 1867 to 31 per cent in December 1872. For the Banco del Perú, cash holdings declined from 48 per cent of banknotes plus deposits in March 1868 to 11 per cent in August 1873, and for the Banco Nacional, cash holdings declined from 31 per cent of banknotes plus deposits in December 1872 to 13 per cent in August 1873.

The situation deteriorated sharply in late 1873. Bankruptcies increased and loan repayment rates fell. Specie became scarcer, loan interest rates increased and money and credit declined. Credit of all Lima banks declined from 31.5 million soles in March 1873 to 28 million in December 1873 and deposits declined from 13 million soles in March 1873 to 9.8 million in December. Their average ratio of cash holdings to banknotes declined from 74 per cent in December 1872 to 41 per cent in September 1873. The worsening economic conditions combined with the outflow of cash[15] signalled a

15 Looking back a little later, Elguera observed in his annual report of 1876 that, after the demand for guano had plummeted (García-Calderón 1949: 256), 'commerce had to export cash every day in greater proportions to replace the lack of bills [of exchange] that had constituted, relative to the situation thirty years ago, the main means of payment of our business sector with the outside world. The cumulative effects of the continuous extraction of currency [specie] from the vaults of banks could be felt month by month.'

looming financial crisis and, in all likelihood, a 'flight to quality' in which the public ran on the weaker banks and switched from holding their notes and deposits to holding those of the stronger banks. The most obvious candidate among the stronger banks was the Bank of London, since this bank was better able to obtain specie, e.g. from its main branch in London, and in any case had stronger financial ratios than most other banks. Then the government intervened.

Government intervention and the regulated banking system

On 8 December 1873, the national government issued a decree establishing the conditions under which banknotes would be accepted in government offices in the future. In essence, this decree was a measure to pressure banks to make loans to the government. If banks wished the government to accept their notes, they were not to issue less than 100,000 soles of capital and were not permitted to issue notes in excess of their capital or to issue notes of denominations smaller than 4 soles. The government would also specify the amount of authorised note issue for each such bank. In addition, these 'associated banks' were to deposit Treasury bonds or government bonds of the consolidated domestic debt in the state mint (Casa de la Moneda) as a supposed 'guarantee' for their note issue. The nominal value of those government bonds could not be less than 70 per cent of the authorised note issue. These banks also had to publish their balance sheets monthly. Their balance sheets were also to declare the amounts of their specie reserves and banknotes in circulation, and those balance sheets were to be certified by the respective merchant guilds.

The decree was not mandatory to all banks, but only to those that wished to have their banknotes accepted in government offices. The banks that chose to operate under this 'associated system' were the Banco de la Providencia, the Banco de Lima, the Banco Garantizador, the Banco del Perú, the Banco Nacional, the Banco de Trujillo and the Banco Tacna. The first five banks had their main offices in Lima; the other two banks operated in the cities of Trujillo and Tacna, respectively. The authorised banknote amounts for these banks were 500,000 soles, 800,000 soles, 100,000 soles, 2 million soles, 1.8 million soles, 250,000 soles and 200,000 soles, respectively.[16]

16 The authorised note issue comes from Dancuart (1907: 20).

Not all banks chose to become associated. The Bank of London and the Banco de Arequipa chose not to operate under the terms of the decree but continued to operate as banks of issue. In December 1874, for example, the Bank of London had 1.46 million soles of banknotes in circulation and the Banco de Arequipa had around 314,000.

In short, the decree of 1873 did not prohibit note issue by unchartered banks. Instead, the decree discriminated against them by denying them the favour of government acceptance of their notes. The associated banks supposedly 'favoured' by this measure paid a heavy price for their favourable treatment, however, because the conditions under which they operated were onerous, as would soon become apparent.

The government defended the decree as an important measure to avoid a financial crisis. In his annual report of 1874, Minister of Finance Elguera stated that the financial situation of banks had become extremely difficult by the end of 1873 (Dancuart 1908: 127–28):

> It is difficult to calculate the consequences that … would have followed from the closure of any of the banks. Reduced to [inconvertible] paper banknotes, the [monetary] circulation in Lima and Callao, even for the smallest denominations, and among the most destitute classes of society, the failure of credit institutions would not have just been a commercial and economic matter, but a political and even a social one of the gravest concern. Both the public, and many other interested parties … looked to the government expecting a remedy to [this] distressing situation.

The government had attempted to reach a solution in meetings with the directors of the banks, but as Dancuart (1908: 128) observed:

> Meanwhile time passed, the panic grew, and as it was natural, the circulating media in each bank decreased … In [this] dangerous situation, all involved felt that government determination [and hence government action] was … a necessity.

The Lima newspaper *El Comercio* supported the decree of 1873. It argued that the measure did not affect the economic liberty of the banks. With the exception of certain general and necessary regulations that had been enacted for the benefit of the public, it argued that banks were as free as before, and could choose for themselves whether they wished to operate under the terms of the decree. It also claimed that the decree would strengthen the government's fiscal position, but implausibly argued that this could be done without exerting undue pressure on the banks involved. Newspapers in other cities also supported the decree for similar reasons (Camprubí 1957).

Many others, however, criticised the decree. Congressman José Martín de Cárdenas, for example, argued that it would convert banks into minors subject to a form of guardianship and that it was preferable to counter with self-regulation through an interbank council or club, in which the banks' directors would agree terms that guaranteed the continued circulation of convertible banknotes. Poorly managed banks would then be forced to exit the market.[17]

Another critic was Congressman Luciano B. Cisneros. He described the decree of December 1873 as government abuse, because it forced banks to hand over 70 per cent of their capital to the government (Cisneros 1876). The newspaper *La Patria* also criticised the decree, stating that the decree was a purely fiscal measure that did not benefit the public at all (Camprubí 1957) and that the bonds themselves would not provide a secure guarantee for the note issue. Banknotes would surely then depreciate against specie. In addition, regulating the circulation of banknotes at the will of the Executive could undermine bank freedom and lead to the establishment of a single privileged bank, which would be the worst of all possible outcomes in a democratic-republican country.

Another important critic was Francisco García-Calderón, businessman, banker, and later President of Peru in 1881. In his *Memorias del Cautiverio*, written in the 1880s, García-Calderón suggested that, although banks faced a difficult situation as a result of the outflow of specie, they could have successfully dealt with their liquidity problems without government intervention. He (García-Calderón 1949: 256) wrote:

> [T]he government which had few resources because by 1872 guano was barely enough to pay the service of the foreign debt, asked banks for money; and as they could not lend it, it [the government] resorted to legal force majeure. Forgetting that the banks had been established as societies with complete industrial liberty and that banknotes were circulating media, received as such in the fiscal offices, and recalling that in the United States of America and some other nations banks had to guarantee their circulating paper,

17 Cited by Salinas (2011).

> it [the government] enacted a decree destroying the freedom of issue and demanding that those banks that wished their banknotes to be received by the Treasury, [also] guarantee their issue by buying domestic public debt at par. Thereby the government obtained the funds it sought; and banks were no longer free.

One might then say that banking bifurcated in the period after the 1873 decree (see Table 13.3). The non-associated banks saw their note issue fall somewhat, but rebuilt their specie reserves to be able to withstand any run. The Bank of London saw its note issue fall from 1.6 million soles in December 1873 to 1.46 million soles in December 1874, and the Banco de Arequipa saw its banknotes decline from 371,000 soles in December 1873 to 314,000 soles in December 1874. Both banks, however, increased their cash holdings, the Bank of London from 1.05 million soles in December 1873 to 1.78 million soles in December 1874, and the Banco de Arequipa from 195,000 soles in December 1873 to 458,000 soles a year later. These represented increases in notes to cash ratios from 67 per cent to 123 per cent, and from 53 per cent to 146 per cent, respectively. The corresponding increases in the ratios of notes to cash plus deposits were from 31 per cent to 37 per cent and from 16 per cent to 29 per cent, respectively. These two banks had fortified themselves well.

The associated banks did not. In most cases, the volume of their outstanding banknotes declined, but their specie holdings declined much faster. Overall, the four main chartered banks (Banco de la Providencia, Banco del Perú, Banco de Lima and Banco Nacional del Perú) saw their note issue decrease from 6.3 million soles in December 1873 to 5.8 million soles in July 1875 (Camprubí 1957). Their specie reserve holdings, however, declined from 2.9 million soles in December 1873 to 2.5 million soles in December 1874 and then to only 1.2 million soles by July 1875. Thus, their average ratio of specie to banknotes declined from 47 per cent in December 1873 to 20 per cent in July 1875, and their average ratio of specie to banknotes plus deposits, specie reserve holdings fell from 20.4 per cent to 11.9 per cent over the same period. Thus, their prospects were grim and deteriorating.

On 1 August 1875, the directors of the Banco Nacional informed the government of the now critical situation and the impending prospect of their being unable to continue to make specie payments. By 31 July 1875, their specie had fallen to only 15 per cent of banknotes and 8 per cent of banknotes plus deposits. The government soon learned that the other associated banks also faced persistent drains in their specie holdings. The government then organised a meeting with the managers of all four banks to discuss appropriate measures. The bankers argued that the failure of any one bank would trigger the collapse of the entire financial system, because the businesses of the banks were deeply interconnected. The bankers signed an agreement requesting state authorisation to suspend convertibility. The manager of the Bank of London was subsequently informed of the agreement and also signed it. That same day, 1 August 1875, the government issued a decree authorising the suspension of convertibility of the banknotes of all five banks.[18] Other banks then suspended convertibility under the umbrella of the same decree.[19]

Table 13.3 Government intervention and liquidity ratios, 1873–75

	Chartered banks				*Unchartered banks*	
	Banco de la Providencia	*Banco del Peru*	*Banco de Lima*	*Banco Nacional*	*Bank of London*	*Banco de Arequipa*
	Ratio cash/notes					
December 1872	0.67	0.72	0.85	0.55	1.03	0.78
June 1873	0.79	0.44	0.90	0.36	0.65	
November 1873	0.80	0.48	0.73	0.36	0.49	
December 1873	0.86	0.46	0.90	0.31	0.67	0.54
April 1874	0.56	0.60	0.79	0.29	1.03	
November 1874	0.54		0.78	0.34	1.16	1.56
March 1875	0.75	0.40	0.62	0.24	1.13	1.77
July 1875	0.43	0.17	0.28	0.15	2.01	0.97
	Ratio cash/(notes + deposits)					
December 1872	0.31	0.29	0.26	0.31	0.39	0.25
June 1873	0.27	0.14	0.33	0.18	0.27	
November 1873	0.31	0.15	0.25	0.19	0.22	
December 1873	0.29	0.15	0.29	0.16	0.31	0.16
April 1874	0.20	0.20	0.21	0.12	0.40	
November 1874	0.20		0.19	0.18	0.38	0.32
March 1875	0.22	0.19	0.17	0.11	0.32	0.37
July 1875	0.15	0.10	0.10	0.08	0.33	0.21

Sources: Various issues of the newspaper *El Comercio*.

18 Information in this paragraph comes from Dancuart (1908).

19 Camprubí (1957) argues that all banks from Lima also suspended convertibility. Among the banks from other provinces, there is evidence that the Bank of Piura suspended convertibility, but it is not clear whether other regional banks also did.

Suspension of payments

The government defended the suspension of payments as a necessary measure in the circumstances. Finance Minister Elguera argued that guano revenues were no longer a large source of specie and that the export of specie was now inevitable. He also suggested that it would not be possible for banks to resume redemption of notes into specie unless new guano contracts were signed and that he considered a remote possibility (Dancuart 1908: 266).[20]

Most newspapers agreed that the suspension of payments was necessary and asked the public to have confidence in the economy and in the banking sector. Others, however, criticised the suspension of payments. For instance, the newspaper *La Sociedad* opposed the measure, and argued that the government had preferred to serve the interests of banks rather than the interests of society at large (Camprubí 1957).

On 9 August 1875, the government enacted a further decree that regulated the issue of banknotes. Unlike the 1873 decree, this decree was mandatory for all banks of issue. According to this second decree, the 'associated banks' whose note issue was authorised in December 1873 could issue banknotes in excess of their authorised amount provided guarantee the excess with the assets specified in the earlier decree. Banks without an authorised note issue were required to limit their issue to no more than the amount they had in circulation on 31 July 1875. All banks also had to accumulate sufficient specie to be able to re-establish convertibility by 31 December 1875. In addition, banks had to publish their balance sheets, specifying the size of their note issue, as well as the size and composition of their cash balances.

One month later, on 10 September 1875, the government signed a contract with the 'big four' associated banks: Banco Nacional, Banco La Providencia, Banco de Lima and Banco del Perú. Under the terms of the contract, these banks would make a loan to the government for 18 million soles.[21] The con-

20 Decades later, Alzamora (1932) claimed that the suspension of payments saved not only the banks but the entire economy.

21 The amount of 18 soles (in paper soles) was decomposed into: (a) 3 million soles in Treasury bonds as a guarantee of their banknotes (Decree of 18 December 1873) and current debts of the government with those banks; (b) 2 million soles in current debts of the government to the banks; (c) 1.1 million soles of banknotes for the payment of Treasury bonds that were due on 1 November 1875; (d) 2 million soles in a monthly payment; (e) 2.4 million soles of banknotes in four monthly payments of 600,000 soles each; (f) 4 million soles of banknotes in 16 monthly payments of 250,000 soles each; (g) 2.1 million soles of banknotes for the payment of the service of the consolidated domestic debt; and (h) 1.4 million soles of banknotes for the rescue of bonds pawned by the government. The government would provide the following assets as a guarantee for the 18 million

tract specified a loan interest rate of 6 per cent per annum and the interest payments would be paid monthly from the revenues from nitrate exports. The issue of banknotes, which had been 9.1 million soles on 31 July 1875, was permitted to increase to 15 million paper soles (around 12.8 million silver soles) and the authorised issue of banknotes for each of the four banks would be proportional to each bank's capital. Only the notes of these banks would be accepted in the fiscal offices, municipal offices and the offices of the Beneficence of Lima (a quasi-governmental charitable organisation), although an exception was made for the departments of Piura, Trujillo and Tacna, where banknotes of the local banks would be accepted. Finally, the associated banks agreed that by the end of the year, they would build up their specie holdings to be at least 30 per cent of their note issue as it stood on 31 July 1875.

It is important to mention that the decree did not prohibit note issue by the non-associated banks. The Bank of London and the Banco de Arequipa, for example, did not lend funds to the government, but were not forced to withdraw their banknotes from circulation. In February 1877, the former still had 146,000 soles of banknotes in circulation; and in December 1876 the latter had 58,000 soles of banknotes in circulation.

In addition, the agreement provided for the creation of a central bank. Once 3 million soles in specie had been collected by the government, the associated banks would organise a central bank in order to centralise the note issue, unifying it and concentrating the assets that guaranteed it. The central bank would be managed by the banks of issue and its by-laws were to be approved by the government.[22]

The government vigorously defended the contract of 1875. As Finance Minister Elguera later stated (Dancuart 1908: 267):

> This operation saved the country from a major disaster; it allowed commerce a settlement that would have been impossible without it; it favored, and powerfully stimulated export industries and gave the government time to develop … the necessary elements to restore the fiscal and economic life of the Republic.

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soles loan: (a) 6 million soles in 200,000 tons of guano to be exported to Mauritius, Réunion and other French and British colonies; (b) 3.5 million soles in commercial bills of exchange on Europe on the first funds to be obtained from the guano contracts; (c) 4 million soles in domestic bonds, including the 3 million soles that the banks were required to use as a guarantee of their banknotes; and (d) 4.5 million soles from the revenues from nitrate exports.

22 This central bank was not successful, but the state centralised the issue of banknotes (Quiroz 1994).

The reality was that the contract saved the government from default, but did not help the banks. Leave aside the flimsiness of the state guarantee, based as it was on revenues from the declining nitrate sector. Leave aside too that the loan drained the banks' cash at the same time as the banks were entering a difficult period due to the economy going into recession, and thereby left them more exposed to the loss of specie than they would otherwise have been. The fact is that the government obtained a large loan that it could not otherwise obtain at a cheap loan rate. Consider the context. The government went from fiscal surpluses between 1862 and 1867 to persistent deficits between 1869 and 1876. All loans by the government between 1853 and 1862 were at an interest rate of 4.5 per cent. A loan in 1865 from Thomson, Bonar and Cia included a rate of 5 per cent. Another loan contracted in 1866 charged a rate of 7 per cent. Three subsequent loans in 1869, 1870 and 1872 had interest rates of 5, 6 and 5 per cent, respectively (Vizcarra 2009). 'Fair value' loan rates then rose and loan availability fell, especially for countries with worsening fiscal problems. To give an example, in an article published in the *Journal of the Statistical Society of London*, Baxter (1874) suggested that the contemporary yield on Peruvian government debt was around 9.7 per cent, which was considerably higher than the 6 per cent interest rate that the Peruvian government was paying on its loan.

The intervention of the government in the banking sector undermined both the value of banknotes and the financial health of the banking sector. As expected, paper money experienced a significant depreciation after the banks suspended convertibility. On 1 August 1875, 1 paper sol was worth 1 sol in specie. By 31 August 1875, however, 1 silver sol was worth 1.045 paper soles; and on 30 September, only one month later, 1 silver sol was worth 1.115 paper soles.[23] All commercial houses had lists of prices in silver and paper soles. Even agriculturists sold 1 quintal of sugar on 4 soles or 5 paper soles (Salinas 2011). Outside Lima, the depreciation was even greater (Camprubí 1957). In 1876 and 1877, banknotes continued depreciating. By 31 August 1876, 1 silver sol was worth 1.335 paper soles; a year later 1 silver sol was worth 1.875 paper soles.[24]

The proximate cause of the depreciation was the increase in the quantity of banknotes in circulation. Recall that the contract of 1875 encouraged associated banks to increase their issue from 9.1 million paper soles (as it was

23 Some newspapers, for example, indicate that in late 1875 soles were purchased at a 45 per cent premium over paper soles (Camprubí 1957).

24 The figures on the exchange rate between paper soles and soles come from Dancuart (1908).

in July 1875) to 15 million paper soles. Their actual total note issue increased to 13.4 million paper soles by December 1876 (Camprubí 1957). Though their specie holdings increased from 950,000 soles in September 1875 to 1.9 million silver soles in December 1876, their ratio of specie to banknotes declined from 19 per cent in December 1875 to only 14 per cent in December 1876,[25] and the corresponding ratios of specie holdings to banknotes plus deposits fell from 11.6 per cent in December 1875 to 8.1 per cent a year later.

These figures show that the four associated banks issued banknotes to fund an increasing amount of credit to the national government. Total credit to the government reached 20.6 million paper soles by December 1876. By that point, credit to the government exceeded credit to the private sector, which was only 11.2 million paper soles.[26] This increasing credit to the government undermined both the banks' financial health and their ability to build up their specie reserves.[27]

As the financial situation of the associated banks deteriorated further in 1875–77, the government again intervened in the banking sector. By a decree of 17 August 1877, the government 'assumed responsibility' for the 16 million paper soles they had issued. It also assumed responsibility for 5.33 million paper soles issued by the Compañía de Obras Públicas y Fomento del Perú, which had been established by the railroad contractor Henry Meiggs. The banknotes then became official government paper money or *billete fiscal*.[28]

25 The liquidity ratios express relationships between cash holdings, note issue and deposits. The figures on cash holdings are always on silver soles (or simply soles). Figures on note issue and deposits are in silver soles until 1874 and in paper soles from 1875. Although cash holdings are not expressed in the same monetary unit as note issue or deposits from 1875, it is still useful to calculate the liquidity ratios as simply the ratios cash/notes and cash/(notes + deposits) in order to determine the capacity of banks to redeem their notes into specie at par.

26 Credit to the private sector actually declined from 15 million paper soles in July 1875.

27 In contrast, the non-associated banks restricted their note issue. The Bank of London reduced its note issue from 1.5 million paper soles in August 1875 to 145,000 paper soles in February 1877. Similarly, the Banco de Arequipa reduced its note issue from 309,000 paper soles in July 1875 to 58,000 paper soles in December 1876. Their ratios of cash to banknotes increased from 2.85 in December 1875 to 5.87 in February 1877 and from 1.38 to 3.1 over the same period, respectively. Both banks were now strongly placed to face demands for redemption by noteholders had convertibility been restored.

28 In 1879, the government prohibited any further private issue of banknotes and banks never again recovered the freedom they had enjoyed before 1879. In the following years, the use of *billetes fiscales* was limited to retail transactions. As Quiroz (1993: 50) indicates, 'paper currency, worn out by the general lack of an alternative means of payment, remained in the hands of consumers in Lima and the northern provinces. … In the south, Bolivian currency served as a basic exchange medium. … The effective eradication of the paper money in 1887, a triumph for merchants and bankers over consumers and debtors, established a firmed base for financial activities in Lima.' Banknotes would only appear again in 1914, but under much more restrictive legislation (Alzamora 1932).

Conclusions

The case of Peru illustrates both the benefits of a pure free banking system and the adverse effects of government intervention into the banking sector. Until 1873, the operations of banks operating in Peru were only subject to general commercial legislation. This legislation was very free market oriented. No capital or specie requirements were required for the creation and operations of any corporations, including banks. The issue of banknotes was not subject to any regulatory constraint and free competition among banks led to a stable banking system. Only once did a bank face a suspension of payments and that was due to fraud, and the bank concerned was soon revived and restored to normal operation. The free Peruvian banking system never experienced any severe problems of its own making. Its ultimate demise was due to state intervention, which was itself a response to the state's fiscal problems after the guano boom came to an end.

Appendix

Peru had two currencies during this period. Before 1863, the currency was the peso, equivalent to 22.5 grams of pure silver. From 1863, the official currency was the sol. Both currencies had the same silver content. Therefore the exchange rate between the currencies was 1 silver peso = 1 silver sol. The evidence suggests that Bolivian pesos were used in several transactions. Those pesos, so called 'feble' pesos, had less silver content than Peruvian pesos. However, I assume that original figures on fiscal revenues, fiscal spending and public debt until 1862 from Table 13.1 are in Peruvian silver pesos. Similarly, original figures on imports until 1862 in Table 13.1 are also in silver pesos.

From 1875 onwards, all banks in Lima and some in other provinces suspended convertibility, and paper soles depreciated relative to silver soles. The exchange rate between paper pesos and paper soles was obtained from Dancuart (1908). I use 'sol' to refer to the 'silver sol', unless otherwise stated.

The liquidity ratios express relationships between cash holdings, note issue and deposits. The figures on cash holdings are always in soles. Original figures on note issue and deposits are in (silver) soles until 1874 and in paper soles from 1875. Although cash holdings are not expressed in the same monetary unit as note issue or deposits after 1875, it is still useful to calculate the liquidity ratios as simply the ratios cash/notes and cash/

(notes + deposits) in order to determine the capacity of banks to redeem their notes into specie at par.

Information on banks' capital, credit, deposits and note issue come from banks' balance sheets. Those balance sheets were published in the newspaper *El Comercio*. Aggregate figures refer to the following banks: Banco de la Providencia, Bank of London, Banco del Perú, Banco de Lima, Banco Nacional, Banco Garantizador, Banco de Trujillo and Banco de Arequipa. Cash holdings are always measured in soles. Before 1875, credit, deposits and note issue were measured in silver soles. From 1875, however, it seems that original figures on credit, deposits and note issue were in paper soles, even for the non-associated banks.[29]

Information on total exports comes from Zegarra (2018) and on imports comes from Mitchell (1993). Original figures on exports are in dollars, which are converted to silver soles. The original figures for imports are in silver pesos until 1862 and soles from 1863. Figures on guano exports come from Hunt (2011).

The figures on public revenues and spending come from Tantaleán (1983). Revenues and spending refer to the actual amounts of revenues and spending. There were important differences between actual amounts and budgeted figures. Revenues do not include loans. I assume that the original figures are in silver pesos until 1862 and in silver soles from 1863.

29 Camprubí (1957), for example, indicates that the Bank of London also suspended payments, even though it was not chartered by the government.

14 FREE BANKING IN SCOTLAND BEFORE 1844

Lawrence H. White

Introduction

Scotland, a relatively industrialised nation with highly developed monetary, credit and banking institutions, enjoyed remarkable monetary stability throughout the eighteenth and early nineteenth centuries. During this time Scotland had no monetary policy, no central bank and very few legal restrictions on the banking industry. Entry was free and the right of note issue universal.[1] If the conjunction of these facts seems curious by today's lights, it is because central banking has come to be taken for granted in this century, while the theory of competitive banking and note issue on a specie standard has fallen into disrepair.

The Scottish success with near-laissez-faire in banking caused consternation to many of the monetary theorists of the nineteenth century as well. Sir Walter Scott (1972: 38–39), ably pamphleteering in defence of Scottish banking, noted the incongruity of Scotland's 'practical System successful for upwards of a century' with 'the opinion of a professor of Economics, that in such circumstances she ought not by true principles to have prospered at all'. The Scottish banking system enjoyed widespread popular support from practical men. It had its theoretically minded supporters as well. The record of free banking in Scotland figured prominently in British and American monetary debates of the 1820s, 1830s and 1840s (White 1984b: chs 3–4; White and Selgin 1990).

Scotland's free banking experience subsequently faded from the common knowledge of monetary economists. American economists, at least, have been

1 The original version of this chapter overstated the case when it said that Scottish banking had 'virtually no' political regulation and 'complete' freedom of entry. An Act of 1765, mentioned below, banned banknotes that gave the issuer an option to delay redemption, and also banned notes smaller than one pound. Contractual limitation of bank-owners' liability was not freely allowed. All of these were regulatory barriers to entry, though I do not believe they significantly impeded competition in practice. See White (1990, 1991).

prone to the misconception that 'free banking' was an experiment limited to several of the United States between the Jacksonian era and the Civil War. It has been commonly believed that English monetary and banking institutions, despite their imperfections, were the most enlightened that the nineteenth-century world had to offer. An account of the Scottish experience, and especially the contrast of Scottish with English institutions, is therefore informative. The success of Scottish free banking, as the result of self-regulating competitive mechanisms, suggests that England would have benefited from emulation of its northern neighbour. At the root of England's monetary difficulties was not too little central banking, as is sometimes suggested, but too much.

This chapter proceeds in the next section to trace the evolution of the banking industry in Scotland during the free banking period, emphasising competitive entry and innovation. The third section then contrasts the arrangement and legal framework of Scottish banking in its heyday with those of English banking during the same period. Some limited evidence on the macroeconomic records of England and Scotland is examined in the final section.

The period of Scottish free banking coincided with a period of impressive industrial development in the Scottish economy. The growth of Scotland's economy in the century up to 1844 was more rapid even than England's. Rondo Cameron (1967: 94), while acknowledging the lack of separate national income statistics for Scotland in this era, offers it as a reasonable estimate that Scotland's per capita income was no more than half England's in 1750 but nearly equal by 1845. Out of a backward agricultural and household economy with an active tobacco trade there developed an advanced (for its day) industrial economy. The leading industries became cotton cloth production, iron production, engineering and shipbuilding. Given Scotland's poor natural resource endowment and lack of other advantages, its ability to reach high income levels was remarkable. There is good reason to believe, as several historians have followed Adam Smith (1937: 314–15) in suggesting, that Scotland's banking system played a major role in promoting the economy's growth.

Evolution of Scottish banking, 1695–1845

The Bank of Scotland was created by Act of the Scottish Parliament in 1695, one year after the creation of the Bank of England.[2] The Act provided a legal

2 This section draws its historical facts primarily from the works of Checkland (1975), Munn (1981), Graham (1911), Kerr (1884), Boase (1867), Munro (1928) and Wenley (1882). Other earlier accounts are Fleming (1877) and Somers (1873).

monopoly on banking and the right of note issue for 21 years. Apparently thinking one bank was the most the country could accommodate, the bank made no effort to renew its monopoly upon its lapse in 1716.

Its founders intended the Bank of Scotland to be purely a commercial bank, to provide secured loans to merchants and noblemen and to discount commercial bills. Banknotes were to be placed in circulation by way of these advances. The issue of banknotes enabled the bank, just as the demand deposit account enables a modern-day bank, to create credit. By issuing notes the bank could lend far more than its paid-up capital. The bank was able to earn a handsome profit from the interest and commissions charged.

Despite its official-sounding title, the Bank of Scotland was – uniquely among European banks at that time – not a state institution. The government neither did business with the bank nor regulated it. In fact, the act creating the bank prohibited its lending to the government, under heavy penalty. This freedom was largely the result of the peculiar historical circumstances under which the bank was chartered. The crown of Scotland had been joined to that of England since 1603, and union of the parliaments was to come in 1707. There was no Scottish government with which to become entangled. In London the Bank of Scotland was commonly suspected of Jacobite leanings throughout the early eighteenth century. The British Parliament therefore turned a deaf ear to the bank's petitions against the chartering of its first rival, the Royal Bank of Scotland, in 1727.

An acrimonious rivalry between the two banks arose the day the new bank opened its doors. Both banks were housed in Edinburgh. As the Royal Bank's historian Munro (1928: 55) puts it, 'at close quarters [there] opened a brisk duel in which the combatants used each other's notes as missiles'. The Royal Bank allegedly dispatched agents to trade its new notes for Bank of Scotland notes and to present the latter in large quantities at the Old Bank's office for coin. The Old Bank responded in kind, but lost the 'duel'. Within three months it was forced to suspend payments, call in its loans, make a 10 per cent call upon its shareholders, and even close its doors for several weeks in 1728. This was already the third suspension in the bank's history. A run on the Bank of Scotland in 1704, sparked by rumours of imminent upward revaluation of coin, had forced it to suspend payments for four months.[3] Its solvency was not threatened, but its assets were illiquid. The

3 This event incidentally inspired Scotsman John Law to the belief that a bank run could correspondingly be forestalled at any time by an announcement of an imminent devaluation of coin. That belief was put to the test in Law's ill-fated Mississippi Scheme.

bank set an important precedent by announcing at the time of suspension that all notes would be granted 5 per cent annual interest for the period of the delay, payable when convertibility was resumed. The same policy was adopted for the eight-month suspension following a run during the civil unrest of 1715, and again for the eight-month suspension of 1728. We may think of these interest payments as part of the penalty cost of a shortfall of specie reserves, necessary to maintain the demand to hold the suspended notes.

Part of the Royal Bank's advantage in this contest came from the sums of cash lodged with it by government agencies. The Old Bank was of course bound to be confronted with an unusually great reflux of its notes upon the opening of a new note-issuing institution, regardless of that institution's tactics. The demand to hold Bank of Scotland notes had suddenly declined as the Royal Bank began to satisfy a large portion of the total demand for notes. The presentation of one bank's notes for payment by agents of the other bank provided the first step toward a regular and more amicable system of note exchanges that still later evolved into a central clearing house for cheques.

The Royal Bank took advantage of the opportunity to put its own notes into wider circulation during the suspension, for a while offering them or specie in exchange for notes of the Old Bank. The Bank of Scotland's notes continued to trade at face value during the suspension. During the suspension a merger of the two banks was proposed by the Royal Bank's directors. Nothing came of the proposal, testifying to the difficulty of arranging cartelisation of an industry even with only two firms. At the same time a private individual brought suit against the Bank of Scotland for its failure to honour the promise to pay given on the face of its notes. After much legal wrangling the noteholder's right of 'summary diligence' or immediate payment on Bank of Scotland notes – a right stipulated in the bank's charter – was upheld. To lower expected liquidity costs, by protecting themselves against resumption of duelling tactics, the Bank of Scotland's directors in 1730 began inserting an 'option clause' into the obligation printed on its notes. The bank's pound note now promised to the bearer 'one pound sterling on demand, or in the option of the Directors one pound and sixpence sterling at the end of six months after the day of demand'. The implicit annual interest rate in case of delay was 5 per cent. Having finally learned from experience the proper specie reserve to maintain, the bank did not have to exercise the option until the 1760s. Its notes continued de facto to be convertible into specie on demand, much as thrift institutions today seldom invoke notice-of-withdrawal clauses in their deposit contracts. (For more on option classes, see Dowd (1988).)

Competitive innovation by the two banks soon began to benefit the public. In 1728 the Royal Bank introduced the cash credit account, a form of overdraft account. An individual applying for a cash credit account had to provide evidence of sound character and two or more trustworthy co-signatories, who were jointly liable in case of the individual's insolvency. Once the account was opened, he could draw out the whole amount or any fraction for personal or business transactions. Interest was charged only on the outstanding daily balance. The cash credit system evidently lowered the cost of maintaining a note circulation by introducing more of the public to the use of banknotes. It proved an advantageous way for the bank to increase its note circulation while expanding its earning assets. The account allowed an individual to borrow against his human capital at lower transaction costs and so enabled him to undertake productive projects that otherwise would have been unprofitable. David Hume praised the system as 'one of the most ingenious ideas that has been executed in commerce' (1955: 70) and noted how it eased the cash constraints within which merchants could transact. The Bank of Scotland adopted the cash account system in 1729. During the note duel of 1728 it had furthermore begun actively to solicit deposit accounts by offering interest upon them. After 1731 it offered such accounts on a regular basis. Checkland (1975: 68) comments that 'Scottish banking was thus attracting deposits by the payment of interest long before this happened in England'. This innovation was a natural outgrowth of the competition for reserves between the two banks.

Competition had a dramatic effect on the profits of the Old Bank. It is reported (Wenley 1882: 124, 127) that from 1696 to 1728 its proprietors had received dividends ranging from 0 to 30 per cent (no dividends were declared during two years) and averaging 15.5 per cent. From 1729 to 1743 the dividends ranged from 3.75 to 6.25 per cent and averaged just 5 per cent.

A number of non-issuing private banking houses appeared in Edinburgh in the 1730s and 1740s. These were small partnerships dealing primarily in bills of exchange and commercial loans, many holding cash credit accounts at the chartered banks. The typical private banker was a merchant whose dealings in bills of exchange had grown gradually from a sideline into his primary business. The private bankers played a limited role in the industry, but are notable for demonstrating the freedom of entry that prevailed.

Rivalry between the two chartered banks[4] continued into the 1740s. To counteract the Royal Bank's popularity with Glasgow merchants, the Bank of Scotland in 1749 granted a large cash advance to a partnership in Glasgow for the purpose of forming the Glasgow Ship Bank. The partners promised to promote circulation of Bank of Scotland notes in Glasgow, just as private bankers promoted their circulation in Edinburgh. In competitive fashion, the Royal Bank sponsored the formation of the Glasgow Arms Bank in 1750. To the surprise of the two Edinburgh banks, the Ship Bank and the Arms Bank both soon began issuing their own notes. At this the chartered banks ceased feuding with one another. The Bank of Scotland's historian tells how their directors met together in 1752 to consider means of dealing with the problem of 'private persons erecting themselves into Banking Companies without any public authority, particularly the two Banking Companies lately set up at Glasgow' (Malcolm 1948: 59–64). They decided to withdraw their credits from the Glasgow banks and to stop credit to any Edinburgh or Glasgow customer circulating Glasgow notes. By 1756 the Glasgow banks were ready to come to terms with the Edinburgh banks, and in fact proposed a geographical division of the Scottish market between the pairs of banks. No agreement on terms could be reached. Once again the inherent instability of cartels had preserved competition in Scottish banking. The chartered banks then allegedly turned jointly to the tactic of note duelling, but their Glasgow rivals survived the assault by a series of evasive manoeuvres.

An agent of the public banks eventually brought suit against the Arms Bank for non-payment of notes. After three years of proceedings an out-of-court settlement was reached. One historian (Graham 1911: 57–58) has correctly commented that the Glasgow banks would never have had to resort to ruses had they kept sufficient specie reserves against their notes. The sufficient quantity of reserves, however, was something that bankers could learn only through trial and error.

The Banking Company of Aberdeen, a joint-stock venture established in 1747, was less fortunate in maintaining its foothold in the industry. The bank issued a great quantity of notes and was evidently unprepared to cope with the reflux of notes upon it. Drained of specie by the notes returned from Edinburgh, it retired in 1753. A petition for summary diligence by a noteholder was refused on the grounds that this remedy was enforceable on

4 Strictly speaking, the Bank of Scotland was not created by royal charter, but by act of the Scottish Parliament. It is none the less expedient to refer to the Bank of Scotland and the Royal Bank of Scotland (and the British Linen Company, after 1746) as 'the chartered banks'.

bills but not on promissory notes such as banknotes. The Act chartering the Bank of Scotland had provided for summary diligence on its notes, but this provision did not extend to other banks. The question of summary diligence against banknotes was finally settled in 1765, when the option clause was outlawed and summary diligence made enforceable. Until then the notes of the banks circulated despite the notes' unclear legal standing.

The most important entrant during these years was the British Linen Company, a corporation chartered in 1746 to promote the linen trade as wholesalers. The company began providing banking services to its clients much in the manner of the Edinburgh private bankers. The company's historian reports that in 1747 its directors started issuing interest-bearing promissory notes with which to pay its 'agents, weavers, manufacturers, and other customers' (Malcolm 1950: 26). In 1750 it began issuing non-interest-bearing banknotes, payable on demand. In the 1760s the company began to withdraw from the linen trade and to devote itself entirely to banking. Expanding vigorously, it enjoyed Scotland's – and the world's – first success with branch banking. The branches began on a small scale as agents appointed in various cities to discount bills and circulate the bank's notes. By 1793 the British Linen Company had twelve branches in operation, with six added shortly thereafter. As a result of its extensive branching the bank had the industry's greatest banknote circulation in 1845. The evolution of the British Linen Company into a banking firm (eventually renamed the British Linen Bank) illustrates once more the freedom of entry into banking that prevailed in Scotland.

A number of small private bankers entered the industry in the late 1750s, followed by several provincial banking companies in the early 1860s. Many of these new banks, apparently in response to the denominational disequilibrium created by a loss of coin through an external drain occurring at the time, issued notes for fractions of £1. The banks typically included the option clause in their larger notes but did not include it in notes smaller than 10 shillings. The Royal Bank and the British Linen Company adopted the option clause for the first time in 1762, though not for their 20 or 10 shilling notes. The directors of the Dundee Bank went the option clause one better by promising to redeeem their larger notes, on demand or with interest after six months, in specie or in the notes of either the Royal Bank or the Bank of Scotland, at the directors' option. This 'double optional clause' appears to have been an aberration rather than part of any wider movement toward pyramiding of reserves. The issue of pyramiding is further discussed later in this chapter.

As numerous small traders began issuing optional notes for sums of 5 shillings and 1 shilling and other private traders minted copper coins for still smaller change, there arose some public agitation against the option clause and the small notes. One later commentator, viewing the circulation of the small notes as a natural response to the scarcity of specie, characterised their opponents as 'country gentlemen, led on most probably by some who visited Edinburgh occasionally, and there picked up theories on religion, politics, and commerce, of a very unpractical character', whose speeches and resolutions contained 'the same exaggerated assertions, fallacious inferences, and ridiculous fears that have pervaded the more modern discussions on the circulating medium' (Boase 1867: 2). Some industry historians (e.g. Kerr 1884: 67–74), apparently taking the provincial resolutions more at face value, have described a 'small note mania' taking hold. Public dissatisfaction may also have stemmed from the difficulty, occasioned by the ongoing external drain, in getting the banks to provide short-dated bills on London or specie for their notes (Logan 1839: 43–44). Recall that the legal remedy of summary diligence had been denied to noteholders. The inconvenience led noteholders in 1763 to memorialise the British Parliament on the subject. In 1764 the government in London intervened, after receiving a memorial from the Glasgow banks and after hearing from a joint committee of the Bank of Scotland and the Royal Bank. Effective from 1765, notes bearing the option clause and notes of denomination smaller than one pound were prohibited in Scotland. All notes were to be either explicitly redeemable in gold on demand, or explicitly post-dated. The right of note issue remained universal, despite the chartered banks' rent-seeking attempt to have the right legally restricted to themselves (Checkland 1975: 120–21). The Act of 1765 left Scotland with free banking in most respects, though it raised an entry barrier against very small-scale banks of issue. Shortly after passage, five of the small-partnership note issuers in the city of Perth amalgamated into a single bank.

Entry continued apace during the late 1760s. The total number of Scottish banks (both issuing and non-issuing) having risen from 5 in 1740 to 14 in 1750, to 23 in 1760, and to 27 in 1765, reached 32 in 1769. The year 1769 saw the establishment of Douglas, Heron & Co. in the town of Ayr. The Ayr Bank, as it was known, showed little sign of having learned the lesson of the Bank of Scotland's suspensions and the Banking Company at Aberdeen's retirement. In three years the bank's reckless management extended a great quantity of bad credit via its note issues and achieved a spectacular insolvency. The discipline of the market soon asserted itself. The bank came to grief in 1772 with losses estimated at some two-thirds of a million pounds (see Hamilton 1956). The failure of the Ayr Bank brought down 13 small private bankers in Edinburgh,[5] thinning the number of private banks from 19 to 6. A provincial banking company in Perth also ended some time in 1772, leaving the industry with 16 institutions in 1773 (Checkland 1975: 132–35).

In order to tell the story of the Ayr Bank crash, it is necessary first to discuss the formation of the Scottish note-exchange system. Selgin and White (1987) provide a theoretical account of why such a system would evolve. Charles W. Munn (1975; 1981a: 21–29) has recounted the particular facts surrounding the origin of the Scottish note exchange. The Bank of Scotland and the Royal Bank of Scotland agreed to accept and regularly exchange one another's notes as part of the accommodation they reached in 1751. Provincial banks, as they entered the industry in the 1750s and 1760s, did not initially accept one another's notes as a general practice. In 1768 the Aberdeen and Perth United Banking Companies initiated a policy of mutual acceptance and exchange. This arrangement was in the profit-seeking interest of both firms, for, as Munn (1975: 48) points out, it promoted the demand to hold the notes of both banks by merchants doing business between the two cities. The Perth United made a similar arrangement with the Dundee Banking Company.

The Ayr Bank arranged from the outset for mutual acceptance and regular exchange of notes with a number of the provincial banks. The exchange was conducted weekly by the Edinburgh agents of the participating banks. The British Linen Company soon entered the exchange. In 1771 the Bank of Scotland and the Royal Bank agreed to join in accepting and exchanging provincial notes, recognising that they could thereby promote the demand to hold their own notes. Some provincial bankers were apparently reluctant at first to enter the exchange with the chartered banks, but soon recognised that exchanging regularly was more convenient than confronting irregular demands for redemption of notes collected by the Edinburgh banks. Following a brief hiatus in the wake of the Ayr Bank crash, the note-exchange system revived to encompass all the Scottish issuing banks from 1774 on (Checkland 1975: 140–41). Membership in the exchange became recognised as a valuable brand-name capital asset. One historian records (Graham 1911: 59):

> So completely did opinion change, that instead of the senior banks needing to coerce their juniors towards the practice, it became an object of emulation

5 I am indebted to Larry Sechrest for pointing out that my previous figure of 8 was in conflict with Checkland (1975: 132).

amongst the latter to share in the rank and respectability enjoyed by members of the note exchange.

In accordance with our theory, each member of the industry benefited from the note exchange as its notes gained in negotiability. This quality improvement meant that the Scottish public's margin of preference between specie and notes shifted in favour of notes. Banknotes thereby displaced specie in circulation to a large extent. The Scottish note-exchange system long antedated the well-known Suffolk system of New England (see Trivoli 1979), whose origin and impact can be explained in a similar way.

The episode of the Ayr Bank failure did not impugn but, in fact, confirmed the effectiveness of the Scottish note-exchange system in preventing overissue by a single bank. Settlement between two clearing-house members, for the difference in the sums of notes exchanged, was made in bills negotiable in London, or in specie.[6] As the clearing house rapidly returned the Ayr Bank's notes to it, the bank piled up ever greater liabilities in the form of bills on London. The bank was in effect borrowing from the other banks to relend to the public. This was not a profitable strategy, as Adam Smith noted in 1776, especially when so many of its loans went sour. The bank soon found it difficult to roll over, let alone retire, its obligations. Public confidence in the bank broke when its London correspondent failed and its bills were refused by other brokers. At liquidation the bank's liabilities consisted of £300,000 in deposits, £220,000 in notes and £600,000 in outstanding drafts on London.

The crash of the Ayr Bank, spectacular as it was for its day, did not imperil the Scottish banking system as a whole. Other banks of issue were not dependent on the Ayr Bank's survival for their own. They did not hold large quantities of its notes, thanks to the operation of the clearing house. Sir William Forbes, a leading private banker, recorded that a 'smart demand for money' confronted the Edinburgh banks for less than a day. Even this brief run 'was a new and unexpected circumstance, for nothing of the kind had occurred' following the failure of one private bank in 1764 or another in 1769 (Forbes 1860: 43). Only those private banking houses involved with the Ayr Bank's circulation of bills were brought down. The three chartered banks, four strong private banks in Edinburgh, three banks in Glasgow, and three provincial banks escaped trouble, having prudently avoided holding the liabilities of the Ayr Bank. The Merchant Bank of Glasgow found it necessary

6 The original version of this chapter said that settlement was also made in Exchequer bills, but I have been unable to discover the basis for that statement.

to suspend payments for three months, and a private bank in Edinburgh to close for a month, but both resumed business. The repercussions of the Ayr failure on the industry were short-lived (Checkland 1975: 133). Private banking revived in the next few years, with new entrants in Edinburgh and in provincial towns. The Bank of Scotland took the opportunity finally to establish successful branches of its own in five cities.

Any possible erosion of general confidence in banknotes from the Ayr failure was halted by joint action of the Bank of Scotland and the Royal Bank. On the day before the Ayr Bank went into liquidation the two banks advertised that they would accept the notes of the defunct bank. The potential benefits of this action to the two banks are clear: it would bolster public confidence, attract depositors and help put their own notes into wider circulation. The potential cost was surprisingly low because of one of the most remarkable features of Scottish free banking: the unlimited liability of a bank's shareholders. Despite their magnitude, the Ayr Bank's losses were borne entirely by its 241 shareholders. The claims of its creditors, including noteholders, were paid in full.

New provincial banks continued to spring up all about Scotland in the decades following 1772. Many had extensive networks of bill-discounting agents to promote note circulation.

According to the typology of Checkland's (1975: 320–21) authoritative chronicle of the industry, the Scottish banking trade at the start of 1810 was divided among 3 chartered ('public') banks, centred in Edinburgh with branches in a few large towns: 9 private (non-issuing) bankers, 8 of them in Edinburgh and 1 in Glasgow; and 22 provincial banking companies, 3 of them in Glasgow, 12 in secondary burghs and 7 in lesser burghs. Checkland reserves the term joint-stock bank for enterprises to be founded later, and Munn (1981b) follows this usage in his history of the provincial banking companies. Previous industry historians had indicated that at least two provincial banks at this time (Wenley 1882: 135), or the majority of them (Fleming 1877: 98), were founded on joint-stock principles. The law made no distinction among provincial, joint-stock and private banks, as the rule of unlimited liability made all non-chartered banks effectively partnerships. The important distinction came along financial lines: the private banks and provincial banking companies were based on their partners' contributions, with shares generally not freely transferable, whereas joint-stock banks raised capital by issuing a limited number of transferable shares. There were important functional differences among the chartered banks, the private banks of Edinburgh and the provincial banks. The chartered banks served as bankers to many of the private banks, whereas the latter specialised in serving certain sorts of borrowers not served by the former. The private bankers also served as Edinburgh agents of the provincial banking companies. The private bankers in Edinburgh did not issue notes, whereas provincial banks typically were banks of issue. The arrangements between the Edinburgh private and chartered banks were so close that private bankers often exercised considerable control as directors of the Royal Bank and the Bank of Scotland. Their vertical division of labour arose from the comparative advantage held by the smaller private bankers in dealing with commercial borrowers whereas economies of scale operated in the business of issuing.

The three 'public' banks were distinctly larger and more prominent in the industry than any of the other banks at the start of 1810. That was about to change.

Schumpeter (1942: 84) has remarked that 'the problem usually being visualized is how capitalism administers existing structures, whereas the relevant problem is how it creates and destroys them'. The 'perennial gale of creative destruction' soon transformed the structure of Scottish banking. The entry of the Commercial Bank of Scotland in 1810, founded on the joint stock of over 650 shareholders, spelled the end of the small private bankers and ushered in an era of extensive branch banking (on this transformation see Munn 1982). A contemporary observer quoted in the bank's history claimed that the perceived aloofness of the chartered banks from the working public gave rise to 'a demand for a bank founded on more liberal principles; … hence the origin of the Commercial, professing to be the bank of the citizens' (Anderson 1910: 3–5). The Commercial Bank announced publicly that no private bankers would sit on its board of directors.

By 1819 the Commercial Bank had opened 14 branches, as compared with the British Linen Company's 17, the Bank of Scotland's 14, and the Royal Bank's single branch office in Glasgow. The structure of the industry as of 1826 is shown in Table 14.1. In 1830 the score stood at 30 branches for the Commercial Bank, 28 for British Linen, 18 for the National Bank of Scotland (established in 1825 with over 1,200 shareholders), 17 for the Bank of Scotland, and still only 1 for the Royal Bank. Smaller banks also branched out. The following decade saw the 7 leading banks alone add another 110 branches, bringing the national total to more than 300 branch banking offices in 1840. On the eve of 1845 there were 19 banks of issue in Scotland with 363 branches, providing one bank office for every 6,600 persons in Scotland, as compared with one for 9,405 in England and one for 16,000 in the US (Macfarlan 1845: 12).

Table 14.1 Scottish banks, 1826

Name of bank, date established	*Head office*	*Number of partners*	*Number of branch offices*
Chartered banks			
Bank of Scotland, 1695	Edinburgh	—	16
Royal Bank of Scotland, 1727	Edinburgh	—	1
British Linen Co., 1746	Edinburgh	—	27
Provincial banks, joint-stock banks and private banks of issue			
Sir William Forbes & Co., *c.* 1730	Edinburgh	7	0
Ramsay, Bonars, & Co., *c.* 1738	Edinburgh	8	0
Glasgow Ship Bank, 1749	Glasgow	3	0
Thistle Bank, 1761	Glasgow	6	0
Dundee Banking Co., 1763	Dundee	61	0
Perth Banking Co., 1766	Perth	147	5
Banking Co. of Aberdeen, 1767	Aberdeen	80	6
Hunters & Co., 1773	Ayr	8	3
Commercial Bank of Aberdeen, 1778	Aberdeen	15	0
Paisley Banking Co., 1783	Paisley	6	4
Greenock Banking Co., 1785	Greenock	14	3
Paisley Union Bank, 1788	Paisley	4	3
Leith Banking Co., 1792	Leith	15	4
Dundee New Bank, 1802	Dundee	6	1
Renfrewshire Banking Co., 1802	Greenock	6	5
Dundee Union Bank, 1809	Dundee	85	4
Glasgow Bank, 1809	Glasgow	19	1
Commercial Banking Co. of Scotland, 1810	Edinburgh	521	31
Perth Union Bank, 1810	Perth	69	0
Montrose Bank, 1814	Montrose	97	2
Exchange & Deposit Bank, 1818	Aberdeen	1	4
Shetland Banking Co., 1821	Lerwick	4	0
Aberdeen Town & County Bank, 1825	Aberdeen	446	4
Arbroath Banking Co., 1825	Arbroath	112	2
Dundee Commercial Bank, 1825	Dundee	202	0
National Bank of Scotland, 1825	Edinburgh	1,238	8

Table 14.1 (*cont.*)

Non-issuing private banks			
Thomas Kinnear & Co., 1731	Edinburgh	—	—
James & Robert Watson, *c.* 1763	Glasgow	—	—
Donald Smith & Co., 1773	Edinburgh	—	—
Alexander Allan & Co., *c.* 1776	Edinburgh	—	—
Robert Allan & Son, 1776	Edinburgh	—	—
Inglis, Borthwick & Co., 1805	Edinburgh	—	—

Sources: Graham (1911: 192); Kerr (1884, appendix D); Checkland (1975: 320–21).

Table 14.2 Scottish banks of issue, 1845

Name of bank, date established	*Head office*	*Number of shareholders*	*Number of branches*	*Paid-up capital (£)*	*Note issue*[a] *(£)*
Bank of Scotland, 1695	Edinburgh	654	33	1,000,000	300,485
Royal Bank of Scotland, 1727	Edinburgh	854	6	2,000,000	183,000
British Linen Co., 1746	Edinburgh	206	43	500,000	438,024
Dundee Banking Co., 1763	Dundee	57	1	60,000	33,451
Perth Banking Co., 1766	Perth	185	3	100,000	38,656
Banking Co. of Aberdeen, 1767	Aberdeen	370	15	240,000	88,467
Commercial Bank of Scotland, 1810	Edinburgh	550	52	600,000	374,880
National Bank of Scotland, 1825	Edinburgh	1,482	34	1,000,000	297,024
Aberdeen Town & County Bank, 1825	Aberdeen	489	10	150,000	70,133
Union Bank of Scotland, 1830	Glasgow	598	30	1,000,000	327,223
Ayrshire Banking Co., 1830	Ayr	109	12	50,000	53,656
Western Bank of Scotland, 1832	Glasgow	703	39	1,000,000	284,282
Central Bank of Scotland, 1834	Perth	405	7	65,000	42,933
North of Scotland Banking Co., 1836	Aberdeen	1,605	27	300,000	154,319
Clydesdale Banking Co., 1838	Glasgow	947	11	500,000	104,028
Eastern Bank of Scotland, 1838	Dundee	552	4	600,000	33,636
Caledonian Banking Co., 1838	Inverness	938	10	75,000	53,434
Edinburgh & Glasgow Bank, 1838	Edinburgh	1,546	20	1,000,000	136,657
City of Glasgow Bank, 1838	Glasgow	906	6	1,000,000	72,921
Totals		13,156	363	11,240,000	3,087,209

Sources: Wenley (1882: 144); Checkland (1975: 372–73).

[a]As authorised by the Act of 1845, equal to the bank's average outstanding note issue for the year ending 1 May 1845.

The Scottish free banking system had thus evolved by 1844 the following features to which free banking advocates in England and elsewhere pointed. There were many competing banks; most of them were well capitalised by a large number of shareholders; none was disproportionately large; all but a few were extensively branched. Each bank issued notes for £1 and above; most banks' notes passed easily throughout the greater part of the country. All the banks of issue participated in an effective note-exchange system. All offered a narrow spread between deposit and discount (loan) rates of interest.

In contrast to their 'big three' dominance in 1810, the public banks now ranked first, fourth, and seventh in size of circulation (see Table 14.2). Five of the joint-stock banks had paid-up capitals as large as the Bank of Scotland's £1 million, and eight had capital as large or larger than the British Linen Company's £500,000. The Commercial Bank had more branches than any of the three public banks, and the National Bank more branches than two of the three. The National Bank, the North of Scotland Banking Company and the Edinburgh and Glasgow Bank each had more shareholders than any of the public banks. Randomly arranging the rows of Table 14.2 and removing the dates of establishment, there would be no way to guess which three banks were the senior members of the industry.

Competition among the public banks and large joint-stock banks was clearly vigorous in note issue, deposit taking, lending and discounting, inland exchange, and other aspects of banking. Profit margins were squeezed.[7] Competitive bidding for loans and deposits kept the interest differential between them down to 1 per cent (Checkland 1975: 384–88). As Munn notes, 'the competitive nature of the business' meant that 'all earning assets had to be managed with fine attention to detail. There was no room for error or even slackness if dividends were to be maintained' (Munn 1982: 118). Attempts were made in the 1830s and 1840s to limit interest rates and activity charges through cartel agreements, but such agreements proved unsustainable in the face of strong competitive pressures (Checkland 1975: 449–50; Munn 1982: 122).

The rise of branch banking on a nationwide scale in the half-century up to 1826 was preceded by the network of agents employed by the major

7 This contradicts Cowen and Kroszner (1989: 226), who hypothesise that the charters of the public banks had the effect of 'reducing competitive pressures (hence relaxing the zero-profit condition)' throughout the free banking period. My response here draws on White (1990, 1991).

banks for the discounting of bills in distant towns. Fully fledged branch offices became profitable only as deposit accounts became a major part of the banking business, while the growth of deposits awaited the growth of real per capita income. Broadly based banks tended increasingly to displace one-office banks because secularly falling costs of communication between areas allowed branched networks profitably to take advantage of economies of scale in fund gathering and asset management, particularly opportunities for risk spreading among various localities. The failure of a local industry whose bills the bank held or an annual variation in the local demand for coin would not imperil the local branch of a national bank so much as it would a purely local bank.

The rise of nationally branched banks went hand in hand with the demise of the small local institutions. Edinburgh's last non-issuing private bankers were gone by 1835. Provincial banks unable to meet the new competition either failed or sold out. The Glasgow Union Banking Company, founded in 1830 with a partnership of 488 shareholders, soon grew to be a major national bank by acquisition of small local banks (Rait 1939).

The Union Bank also pioneered the competitive practice of regularly publicising its asset and liability status, in 1836 becoming the first British bank to publish an annual balance sheet. Previously, the Bank of Scotland had published its accounts to demonstrate its solvency during the suspension of 1704 and 1728.

The rise of nationally branched joint-stock banks and the decline of local banks in Scotland by 1844 indicates that there emerged substantial economies of scale in producing banknote services, that is, the public confidence, easy redeemability (through branching and reserve management), and other qualities necessary to keep banknotes in circulation in a competitive environment. But these economies were always limited.[8] Thomas Kinnear, an Edinburgh private banker who also served as director of the Bank of Scotland, testified (British Sessional Papers 1826: 132) that the Bank of Scotland had been forced to abandon some of its branch offices due to competition from local banks. No one bank could serve the entire market so cheaply as to exclude others. Scottish experience offers no reason to suppose that there exist 'natural monopoly' characteristics in the production of convertible currency.

8 In stating my conclusion this way, I am admittedly downplaying the fact that the Scottish banks, like other banks typically, produced a number of outputs jointly with banknote services

Freedom of entry into the banking trade in Scotland was closed off by Peel's Act of 1844 and the subsequent Scottish Bank Act of 1845 (see White 1984b: 76–80). The years before 1845 had seen the entrances of some 109 distinct banking firms. Of those, 36 had failed or been wound up, 12 had disappeared for reasons unrecorded, 11 had retired voluntarily or ended without apparent failure, and 30 had merged into other banks (Checkland 1975: tables 2, 3, 9, 11); 20 banks remained in business in 1845, 19 of them banks of issue (see Table 14.2); 9 of these 19 had entered since 1830. The Clydesdale Bank, established in 1838, is notable for being one of three Scottish banks issuing notes even today (the others are the Bank of Scotland and the Royal Bank, the industry's first two entrants). Since 1845 the number of native Scottish banks has declined steadily, primarily through merger, to today's three banks.

The contrast between Scottish and English banking

J. Shield Nicholson (1893: 502) noted that the Scottish system from 1716 to 1845 was 'more than any existing system, the result of continuous development', and owed 'less than any to the direct interference of the legislature'. James Wilson (1847: 30), first editor of *The Economist,* commented that 'we have only to look to Scotland to see what has been the effect of a long career of perfect freedom and competition upon the character and credit of the banking establishments of that country'.

Its freedom from legislative intervention sharply distinguishes Scottish banking before 1844 from banking in England and Wales.[9] After the lapse of the Bank of Scotland's legal monopoly in 1716, no Scottish bank enjoyed the legal privileges bestowed on the Bank of England. Correspondingly, the Scottish provincial and joint-stock banks suffered under none of the peculiar series of makeshift restrictions placed on English country banks (apart from a small-note ban).

The original charter of the Bank of England in 1694 did not grant it exclusive privilege in note issue or in other aspects of banking. In 1697 Parliament resolved that no other bank would be chartered while the Bank of England remained, but left the field open to private bankers. Shortly thereafter, as a quid pro quo for the bank's taking up more Exchequer bills (the bank actually originated in a war loan to the government), an Act of 1708 barred any

9 This theme has been emphasised by Cameron (1967: ch. 3). For a contrary view, see Checkland (1968). For rejoinders, see Cameron (1982) and White (1991: 38–42). Of course, Scotland did not enjoy literally perfect freedom. See footnote 1 above.

English private joint-stock bank of greater than six partners from issuing banknotes or any other obligations with maturities shorter than six months during the continuance of the Bank of England.

The business of supplying banknotes in the English countryside was thereby left to a host of poorly capitalised, locally based banks. Bank of England notes hardly circulated outside London in 1708, and even 120 years later were not commonly encountered outside the city. The Bank of England faced diseconomies of scale in providing banknotes with desired qualities. Local country notes circulated more freely because their authenticity was more easily ascertained, and their acceptance by nearby bankers for redemption or deposit was more likely. Bank of England notes bore unfamiliar signatures, could be redeemed for specie only in London, and were not widely accepted by country bankers. In addition – and here the bank seems to have overlooked a profit opportunity – its notes were issued only in denominations too large for common use, the smallest being £20 until a £10 note was introduced in 1759 and a £5 note in 1793.

Smaller notes were issued by the country bankers who, incidentally, often failed. It became popular in England to attribute the instability of these banks to their issues of small notes rather than their undercapitalisation. Parliament in 1775 prohibited English banks from issuing notes smaller than £1. Two years later notes smaller than £5 were banned. Token coins issued by local manufacturers, differing from banknotes only in form, soon arose to meet the demand for money of small denominations. The £1 notes of Scottish banks, already circulating in northern England, gained greater currency in the northern counties.

Bank of England notes did not gain widespread circulation until the bank finally began opening branches after being prompted by the government to do so in 1826. Their circulation was furthered in 1833 by their becoming a form of legal reserve for the country banks. Country banks had previously been obliged to redeem their own notes in gold or silver coin; now they could redeem them either in coin or in Bank of England notes. J. R. McCulloch (1837: 170) remarked that 'Bank of England notes are now legal tender everywhere except at the bank and her branches'. The notes of the bank became a form of high-powered or base money, giving the bank substantial short-run influence over the English money stock.

In Scotland neither native banknotes nor Bank of England notes were legal tender. Yet the notes of the major Scottish banks circulated freely throughout the country. One-pound notes performed the great bulk of the transactions. An anonymous English writer commented (Anonymous 1966: 108):

> Whoever has been to Scotland knows that, notwithstanding the appearances which denote real wealth, no coin but that of copper is common; gold and silver are scarcely visible; it is even difficult sometimes to get silver in change of a twenty shillings Bank Note. Purchases and payments of all kinds are commonly made in paper.

Unlike Bank of England notes, the notes of a major Scottish bank came in conveniently small denominations (though notes smaller than £1 had been outlawed by the Act of 1765). Unlike English country banknotes, their value was secure and their acceptance by other banks commonplace. In the early days, immediately following the Aberdeen, Glasgow and Ayr Bank episodes, the Edinburgh banks refused for a while to accept provincial notes, although they freely accepted one another's notes. Even so, private brokers in the city would change the provincial notes at a discount of ½ pence per 20 shillings (0.6 per cent). General acceptance, as we have noted, was the norm after 1774. An individual bank thought overextended by the industry would occasionally be disciplined by the threatened refusal of its notes.

It is sometimes suggested that free banking is inherently attended by a counterfeiting problem of major dimensions. Counterfeiting was not a significant problem in the Scottish experience. Counterfeiting was a problem for the Bank of England, however, especially during the period of the suspension of payments. The likelihood of undetected counterfeiting varies directly with the length of time a note circulates before returning to the issuing bank – where it passes under a teller's discriminating gaze – for deposit or payment. Coppieters (1955: 64–65) points out that Scottish notes had a very brief average period of circulation, as other issuing banks would not hold them as till money, but would return them through the clearing house. The same could not be said for Bank of England notes.

Because of competition, moreover, we should expect each Scottish bank to pursue a policy towards forgeries of its notes designed to bolster public confidence in its notes (to the point where the marginal revenue of increased circulation equalled its marginal cost of confidence bolstering). Thomas Kinnear testified (British Sessional Papers 1826: 126) that the Bank of Scotland generally honoured forgeries of its notes tendered over the counter by innocent parties. The bank did not honour forgeries accepted by other banks and returned through the note exchange, since presumably that policy would have been more costly. By raising the costs to the bank of discovering who had forged the notes, and hence of discouraging forgeries, it would have invited a greater supply of forgeries. The accepting banks could not be expected to keep an eye out for forgeries of Bank of Scotland notes unless the burden fell upon them.

The six-partner rule of the Act of 1708 prevented England from experiencing the rise of strong nationally based joint-stock banks like those whose branches superseded local and private banks in Scotland. As Sir Henry Parnell (1833: 73) explained:

> What has been the cause of the failures of Country Banks in England? The facility with which every cobbler and cheesemonger has been able to open a Bank, in consequence of the limitation of the numerous opulent Banks. What has been the cause of so few failures in Scotland? The freedom of the Banking Trade, and the establishment of opulent Banks.

Good banks could drive out bad, given the chance. In 1826, a recent banking panic having made the inferiority of the English system plain, Parliament granted a limited concession to public agitation on behalf of Scottish principles of joint-stock banking. An Act of 1826 removed the old Act's restriction on the number of partners permitted to establish a note-issuing bank, but only for banks to be housed more than 65 miles from London. Joint-stock banks could do business in London only if they did not issue notes. The new Act also encouraged the Bank of England to open branches outside London. At least one banking historian (Macleod 1866: 335–37) has argued forcefully that the 65-mile restriction continued to deny England the best feature of the Scottish system, the freedom to develop a broad banking network based in the country's financial centre. The freedom to branch into Britain's financial centre – London – was, however, equally denied to the Scottish banks.

In the event of failure of a Scottish bank, a call would go out to its shareholders – who were publicly listed – for some percentage of the nominal value of their shares. The most severe call on record seems to have followed the failure of the Fife Bank in 1829. The holder of each £50 share was assessed at £5,500. All liabilities were paid in full. By one account (Wenley 1882: 142), all failed banks having more than nine partners were able to pay their liabilities to the public in full. The loss to the Scottish banking public from all failures to date was estimated in 1841 at only £32,000. Public losses during the previous year in London alone were estimated at twice that amount (Aytoun 1844: 678). This experience enhanced the great confidence the Scottish public put in banknotes and contributed importantly to the cyclical stability of Scottish banks.

Limited liability was not available to the non-chartered banks[10] until 1862. Compulsory unlimited liability can be viewed as a potential barrier to entry, because it may have restricted new banking firms to a suboptimal sharing of bankruptcy risk between shareholders and debtholders (Carr and Mathewson 1988: 776–77; Cowen and Kroszner 1989: 225–27). It is possible, however, that the restriction was not binding. The unchartered Scottish banks chose to retain unlimited liability even after limited liability became available to them through the Companies Act of 1862. In Checkland's (1975: 480) view the Scottish banks 'preferr[ed] that the obligation should continue to rest on shareholders; they felt that such a step [adopting limited liability] would reduce public confidence in them, and so harm their business'. Not until 1882, after the 1878 failure of the City of Glasgow Bank helped to change shareholders' perceptions of the risks they faced, and after the 1879 passage of a revised Companies Act, did the remaining seven non-chartered Scottish banks agree to limit their shareholders' liability. (For more on this issue, see White (1991: 42–44).)

As an investment to bolster public confidence in its obligations, it was not unusual in the eighteenth century for a local bank to lodge with the town clerk a personal bond guaranteeing payment of its notes. One of the points of contention in the case against the Glasgow Arms Bank was that it had violated its bond by inserting the option clause into its notes. Enforcement of liability was facilitated by Scottish bankruptcy law, which was stricter than English law. In England only the personal estate of an insolvent debtor could be attached. A Scottish creditor was legally entitled to the debtor's real and heritable estate as well. The amount of real and heritable estate an individual possessed could be easily determined by consulting public records. This enabled each partner of a local banking venture to gauge his personal exposure to loss and aided a bank in verifying the collateral property pledged against loans and cash credits. It also enabled members of the

10 More precisely, only the Bank of Scotland, the Royal Bank of Scotland and the British Linen Company enjoyed limited liability during the free banking era. The Commercial Bank and the National Bank were granted charters in 1831, but these charters expressly retained unlimited liability. On the question of the liability of joint-stock companies in Scotland, see Campbell (1967); on the liability of the banks in particular, see Logan (1839: 1).

public, if they wished, to ascertain the ultimate assets of a local banking partnership. The great security provided to creditors under Scots law helped immunise Scottish banks against any danger of a panic-induced run.

English country banks were never able to create adequate public confidence in their notes. The limitation of English banks to a partnership of six hamstrung their confidence-creating efforts. Joint-stock banking with unrestricted capitalisation and freedom of issue was never allowed to evolve. Its trial was limited to eleven years and prejudiced by its exclusion from London. The fact that Scottish notes crossed the border to form the common circulation of the northern counties of England – there is no evidence of English notes travelling north – stands as clear evidence of the superior reliability of the Scottish banks. In 1826 the citizens of Cumberland and Westmorland counties in northern England petitioned Parliament against the proposed restriction of their Scottish note circulation. Their petition, setting forth the facts of their situation, supports the argument that high-quality banknotes will out compete low-quality notes in gaining public circulation. The petition noted that the freedom of Scotland from the six-partner rule (quoted by Graham 1911: 366–67)

> gave a degree of strength to the issuers of notes, and of confidence to the receivers of them, which several banks established in our counties have not been able to command. The natural consequence has been, that Scotch notes have formed the greater part of our circulating medium.

The petitioners added that they had, with one exception, never suffered any losses from accepting Scottish notes for the last fifty years, 'while in the same period the failures of banks in the north of England have been unfortunately numerous, and have occasioned the most ruinous losses to many who were little able to sustain them'.

Because of the legal limitation on their capitalisation and their consequently restricted ability to spread risks through portfolio diversification and office branching, the English country banks were artificially prone to failure. Experience with country bank failure in turn made the banks less trustworthy and hence more susceptible to sudden panic-induced demands for redemption of notes.

The Scottish banks were both stable and competitive. The English country banks lacked the first of these attributes; the Bank of England lacked the second. The Bank of England did not open branches until the Act of 1826 specifically encouraged it to do so. Adhering to the policies of the London office, the branch offices offered no interest-bearing current accounts, unlike the Scottish banks, and even no interest-bearing six-month time deposit accounts, unlike many country banks. The branches did not allow overdraft privileges, although these (on the model of the Scottish cash credit system) had become popular with merchants. The branches of the Bank of England refused to accept country notes as a matter of course.

Though the country banks operated regular note exchanges in a number of localities, they were excluded from operating on a nationwide basis by their legal exclusion from London and by the Bank of England's refusal to enter into arrangements with the country banks for mutual acceptance and exchange of notes. Competition had long since led the Scottish banks to accept one another's notes. The sole competitive impact of the Bank of England branches seems to have come in their driving down local rates of discount on bills.

Free banking was beneficial to the Scottish public not only for its improvement of the payments mechanism. The unrestricted note issue of Scottish banks also aided their intermediation. The contrast between Scottish and English deposit practices – only the Scottish banks paid interest on deposits as small as £10 and paid interest on current accounts without charging a fee for withdrawals – may be attributed to the effectiveness of competition in the supply of banknotes in Scotland. The cash account system, original to Scotland, was similarly the product of competitive note issue. Perhaps the most distinctive feature of the Scottish system was the extensive branching of the national joint-stock banks. Freedom of note issue, by allowing each bank to hold its own paper rather than precious metals as till money for redemption of deposits, made it economically feasible for banks to establish numerous and dispersed branch offices. Competition in maintaining a national circulation gave them the incentive to branch. The broad basis for the Scottish banks, especially after 1810, was a major source of their stability in the 1775–1845 period.

In light of the evolution of the English banking system, as told in Bagehot's celebrated *Lombard Street,* it is noteworthy that Scotland before 1844 did not develop an inverted-pyramid structure of specie reserves. It rather maintained a system of 'each tub on its own bottom'. Each bank held onto its own specie reserves.[11] The English 'one-reserve system', whereby the Bank of

11 Munn (1981: 141) provides statistics on the ratios of specie to demand liabilities held by six provincial Scottish banking companies during various decades. In the second half of the eighteenth century their ratios, averaged for each bank by decades, stood between 10 and 20 per cent in six out of ten cases reported, and over 20 per cent in one case. In the first half of the nineteenth century

England alone held substantial specie, was, as Bagehot (1912: 100) explains, the product neither of conscious design nor of natural market evolution. It was instead 'the gradual consequence of many singular events, and of an accumulation of legal privileges on a single bank'. There is no reason to suppose any tendency toward centralisation of reserves in the absence of government intervention.[12] Bagehot comments at length that 'the natural system – that which would have sprung up if Government had let banking alone – is that of many banks of equal or not altogether unequal size', and cites Scotland as an example of a system 'where banking has been left free' and where there is 'no single bank with any sort of predominance'. In such a system no bank 'gets so much before the others that the others voluntarily place their reserves in its keeping' (Bagehot 1912: 66–68).[13]

Cyclical stability of Scottish banks, 1793–1837

The Scottish free banking system proved far hardier during periods of commercial distress than did its English counterpart. As a result, Scottish industry as a whole seems to have suffered less severe cyclical variation than English industry. Even critics of the idea of allowing free banking in London, like J. R. McCulloch (1826: 281), acknowledged 'the comparative exemption of this part of the empire [Scotland] from the revulsions that have made so much havoc in England'. Non-bank-related differences between Scotland and England may be cited in explaining the relative mildness of Scottish cycles – McCulloch invoked the greater role of agriculture in the Scottish economy, for example – but these are of secondary importance. Scotland

the ratios were substantially lower, ranging from 0.5 to 3.2 per cent. The drop may be attributed to lower costs of obtaining specie on short notice and possibly to lower risk of substantial specie outflows.

The claim that Scottish banks held much of their reserves in the form of Bank of England liabilities, and thus characteristically 'pyramided credit on top of the Bank of England' (Rothbard 1988: 231; see also Sechrest 1988: 247), is in error. See White (1991: 49–53).

12 This point is made by Vera Smith (1990: 170).

13 In order that the 'natural system' may prevail it is important that the central government not play favourites in placing its deposits among the banks. This was an issue that concerned the Jacksonian free banking advocates in the US (e.g. Leggett 1984: 119–26) and led to their insistence on an 'independent Treasury'. The argument that a favoured bank of the central government must play a special role in the banking system and tends to become a central bank has recently been raised as an objection to Hayek's (1978) proposal for 'denationalization of money' by Congdon (1981). This argument may be regarded not as pointing to an insurmountable obstacle to free banking, however, but merely as re-emphasising the importance of government neutrality toward banks in placing its deposits.

largely caught up with England in industrialisation during the free banking period but retained its advantage in macroeconomic stability. Cameron (1967: 97) has plausibly argued that the more rapid growth of the Scottish economy itself owed much to competition in banking.

Scottish and English experiences may be contrasted for the crises of 1793, 1797, 1825–26 and 1837.[14] The weaknesses of the English country banks led to their frequent failure even in good times. This record in turn enhanced their cyclical instability, for it undermined public confidence in them. Klein (1978: 6) has rightly remarked that 'the major way in which monetary confidence is produced is successful past performance'. The slightest suspicion could touch off a run on the country banks. These smallish banks could not turn to one another for financial support in such a circumstance; neither did they appear an attractive investment opportunity to the Bank of England. The Scottish banks, by way of contrast, stood ready to lend one another liquid funds in the event of a short-term disturbance. During the Ayr Bank episode in 1772, for example, the Bank of Scotland and the Royal Bank advanced cash to the three Glasgow banks.

Threat of war from France apparently prompted a great demand for cash in Great Britain in early 1793. The crisis was severe in England. MacPherson's (1805: 266) *Annals of Commerce* reports: 'Many houses of the most extensive dealings, and most established credit, failed; and their fall involved vast numbers of their correspondents and connections in all parts of the country'. The numbers involved are disputed. MacPherson reports the failure of more than 100 of the banks in England and Wales (their total variously estimated at 280 and above 400). Macleod (1866: vol. 1, 383; vol. 2, 103) avers that of some 400 country banks, 300 were 'much shaken' and 100 failed. Gilbart (1837: 109), however, reports only 22 bankruptcies. The demand for cash was felt in Scotland as well. Two of the Glasgow banks (the Arms Bank and the Merchant Banking Co.) succumbed in March, but both met their liabilities in full. Hamilton (1963: 334) notes that 'other banks weathered the storm by paying out freely and by helping each other'. The house of Sir William Forbes, James Hunter & Co., alone extended more than a quarter of a million pounds to other houses. Most of the distress experienced by Scottish businesses was attributed at the time to the tightness of the London discount market.

An even greater trade crisis occurred in 1797. An ongoing outflow of gold prompted the Bank of England to restrict its discounts in 1795. This action

14 The evidence that follows is suggestive. It is certainly not a substitute for a detailed comparative study of Scottish and English business cycles.

checked the external drain temporarily, but an internal drain (public redemption of banknotes following a rise in the domestic demand to hold gold, attributable to reduced confidence in bank obligations) became serious in the following year. An alarm caused in February 1797 by threat of French invasion accelerated the drain and finally led the Bank of England, with the permission of the Privy Council, to suspend payment on its notes. The suspension was approved by Parliament and was not to be lifted until 1821. Scottish banks confronted only a minor internal drain, as noted by Henry Thornton (1978: 112–13) in his account of the events of 1797:

> The fear of an invasion took place, and it led to the sudden failure of some country banks in the north of England. Other parts felt the influence of the alarm, those in Scotland, in a great measure, excepted, where, through long use, the confidence of the people, even in paper money of a guinea value, is so great (a circumstance to which the peculiar respectability of the Scotch banks has contributed), that the distress for gold was little felt in that part of the island. A great demand on the Bank of England was thus created ... on the account of people in the country.

Upon receiving news of the suspension, the managers of the four leading banks in Edinburgh at this time – the Bank of Scotland, the Royal Bank, the British Linen Company, and Forbes, Hunter & Co. – met and decided to follow the Bank of England's example. Had they made specie available while the Bank of England refused, they feared English demand would rapidly have drained them of their reserves. The suspension of convertibility by Scottish banks was illegal under the Act of 1765, but curiously enough no one seems to have challenged them seriously in court.[15] There is evidence (Checkland 1975: 222) that in practice the banks continued quietly

15 It is not immediately clear why the Scottish banks (and likewise the English country banks) did not remain tied to specie and let their currency float against the Bank of England note. One answer focusing on the banks' self-interest points to the fact that, London being Britain's financial centre, suspensions by the London banks made the Scottish banks unable to get extra gold from their correspondent banks or from sale of securities in the London market. In other words, their secondary reserves were immobilised. Another answer, focusing on the self-interest of Scottish bank customers, suggests that they preferred a note convertible into what had become London's basic cash due to the importance of trade with London. In other words, Britain as a whole was the natural currency area.

Irish banks, by the way, were directed to suspend by the British government, a directive ratified by the Irish parliament. Northern Ireland, where banknotes did not circulate, continued on the gold coin standard. On this see Fetter (1955: 12–16).

to redeem some notes for favoured customers. The suspension brought on a severe disequilibrium in the denominational structure of Scottish currency. The banks would officially no longer give change, and the public hoarded gold and silver coins. The public resorted to making change by tearing £1 notes into halves and quarters, and token coins (though illegal under the Act of 1765) began to be issued by merchants, until the issue of fractional notes by existing banks was temporarily authorised by Parliament.

Table 14.3 English and Scottish bank failures, 1809–30

Year	*Licensed English note issuers*[a] *(1)*	*English bankruptcies*[b] *(2)*		*English bankruptcies per thousand (3)*	*Scottish banks year end (4)*	*Scottish bankruptcies per thousand (5)*
		(Gilbart)	*(Presnell)*			
1809	702	4	5	5.7	37	0
1810	782	20	13	25.6	38	26.3
1811	789	4	11	5.1	37	0
1812	825	17	11	20.6	37	0
1813	922	8	6	8.7	36	27.8
1814	940	27	20	28.7	37	0
1815	916	25	33	27.3	37	0
1816	831	37	16	44.5	36	27.8
1817	752	3	1	4.0	36	0
1818	765	3	8	3.9	37	0
1819	787	13	9	16.5	37	0
1820	769	4	6	5.2	37	0
1821	781	10	12	12.8	36	0
1822	776	9	5	11.6	35	28.6
1823	779	9	11	11.6	35	0
1824	788	10	3	12.8	35	0
1825	797	37	60	46.4	36	27.8
1826	809	43	—	53.1	35	28.6
1827	668	8	—	11.9	35	0
1828	672	3	—	4.5	35	0
1829	677	3	—	4.4	34	29.4
1830	671	14	—	20.9	36	0
Total	—	311	—	—	—	—
Year average	781.7	14.1	—	18.1	36.1	7.8

[a]Beginning 1808 a licensing duty was imposed on note-issuing English banks. The number of licensed note issuers represents roughly, but probably overstates, the number of country banks, because banks having more than one note-issuing office were required to take out a separate licence for each office up to the fourth. On the other hand, non-issuing banks were not licensed. If the figures in column (1) overstate the number of country banks, then the figures for bankruptcies per thousand in column (3) are biased downward. An earlier version of this table in White (1984b: 48) adjusted the Scottish figures similarly by counting a bank's first three branches as separate banks, but because Scottish banks were more commonly branched, this adjustment probably biased the Scottish bankruptcy rate figures downward more severely. Columns (4) and (5) are not adjusted in this way, so that the computation is now most likely biased *against* showing lower rates in Scotland. The Scottish bankruptcy rates now shown are consequently higher than those appearing in the earlier version of this table. Column (5) has also been revised to square the years in which Scottish bank failures are recorded with the accounts of Munn (1981b) and Checkland (1975); I thank Larry J. Sechrest for drawing my attention to previous discrepancies.
[b]Although Gilbart (1837) and Pressnell (1956) offer differing figures on the number of English bank failures in each year 1809–25, their totals for those years are the same.

Sources: Gilbart (1837: 110); Pressnell (1956: 538); Checkland (1975: 177–79, 320–21); Munn (1981b: 69, 86–87).

The period of the suspension provided no let-up in English country bank failures. Thomas Joplin (1826: 5) observed that 300 bankruptcies of English banks had occurred in the thirty years up to 1821, 'an average of failures … in all probability far exceeding that of any regular business'. He noted that no Scottish joint-stock bank had failed in over forty years. McCulloch (1826: 272) reported that 'no fewer than ninety-two commissions of bankruptcy were issued against English country banks' during the period 1814–16: 'and one in every seven and a half of the total of these establishments existing in 1813 … was entirely destroyed'. An annual record of country bank licensures and bankruptcies for the period 1809–30 is provided by the history of Gilbart (1837: 110). This record is reproduced as columns 1 and 2 of Table 14.3. The differing bankruptcy statistics of Pressnell (1956) are also shown. From Gilbart's figures a failure rate has been computed (column 3) and compared with the failure rate for Scottish banks (column 5). The table shows that over this period the average annual failure rate was more than twice as high for English banks as for Scottish banks.[16]

The crash of 1825–26, attributable to Bank of England policy, brought down a number of England's most reputable country banks and London banking houses as well as scores of smaller banks. A single month in 1825 saw 73 banks stop payment, only 10 of which eventually resumed business. One member of Parliament took note that 700 or 800 country banks

16 The limitation of the table to the years 1809–30 is due to the limitation of Gilbart's figures to those years.

– virtually the entire industry – had asked the Bank of England for assistance during the general panic. The Bank of England itself, in the words of Bagehot (1873: 15), 'was within an ace of stopping payment' due to depleted specie reserves. Gilbart records 80 commissions of bankruptcy issued against English country bankers for the years 1825–26. Macleod (1866: vol. 2, 103) puts the number at 76, but adds that 'from the different ways of making compositions, etc, the number of failures should probably be estimated at four times the number of commissions of bankruptcy'. Repercussions of the distress reached Scotland in late 1825, but unsettled only four small members of the banking trade. One retired, apparently still solvent, in 1825; another was taken over by the Commercial Bank of Scotland in 1825 with no inconvenience to depositors or noteholders; a third failed in 1826 but paid its liabilities in full; and the Fife Banking Co. stopped payment in 1825 but did not wind up until 1829 (Checkland 1975: 314–15).

English joint-stock banks, newly legalised by the Act of 1826, sprang up in great numbers in the English countryside after further liberalisation of entry in 1833. Over 200 fresh banks were established in the years 1835 and 1836, a period of Bank of England expansion. Their inexperience in maintaining adequate reserves became evident in the panic of 1837, precipitated by the Bank of England being compelled to reverse course and contract. 'In the heavy losses and banking failures which ensued,' one historian notes in passing, 'Scotland had little share' (Graham 1911: 202). Robert Bell (1838: 8) commented that 'while England, during the past year, has suffered in almost every branch of her national industry, Scotland has passed comparatively uninjured through the late monetary crisis'.

15 FREE BANKING IN SWEDEN

Lars Jonung

Introduction

This chapter examines the Swedish record of competition in the supply of banknotes in the nineteenth century. The following features of the Swedish system stand out. Between 1831 and 1902, a rising number of private commercial banks issued notes competing with the notes of the Riksbank, the bank owned by the Riksdag, the Swedish parliament. The private notes were denominated in the same currency unit, the krona, as the notes of the Riksbank.[1] The private banks turned out to be successful in this market despite various legal and political obstacles. Private notes were never legal tender – only Riksbank notes were. Public opinion was generally hostile to private banknotes, reflected in legislative changes gradually restricting the size of the denominations of notes issued by private banks and in taxation levied on private notes. Eventually, the Riksdag gave its bank, the Riksbank, a monopoly of the note issue.

During the seven decades of private notes in circulation, no private bank failed to redeem its notes into Riksbank notes. The exchange rate between the two kinds of notes remained one to one. The note issuance was initially not regulated by any legal reserve requirements, nor by government inspection. The note-issuing banks were originally chartered under the explicit rule that the authorities would 'under no circumstances' intervene to support a private bank in financial trouble. Nor could the banks expect to get any help from the Riksbank, since it was their main competitor. In view of these features, it is remarkable that no private banks failed in Sweden, considering failures of note-issuing banks in Scotland, England and the US during the nineteenth century (see, for example, White 1984b).

1 The currency unit of the Riksbank was changed from the riksdaler to the krona when Sweden moved from the silver standard to the gold standard in 1873. All data in the figures are expressed in kronor.

The history of private banknotes in Sweden represents an episode of free banking, defined as a case where private banks in the nineteenth century competed with a rudimentary central bank, the Riksbank, in the market for both notes and deposits. Entry into private banking was not free, although restrictions eased over time. The commercial banking system was subject to legal rules determining its performance. This period of free banking ended when the Riksbank obtained a monopoly on the issuance of notes and accepted the role of a modern central bank, while the commercial banking system became the main supplier of deposits.

This chapter is organised as follows. As empirical studies of the development of banking systems emphasise the importance of the legal framework, the Swedish banking legislation relevant to the issuance of private notes is first presented. Next, the economics of private note issue is considered: the development of market shares, the role of the note supply to the private banks, various methods of spreading notes, the private clearing of notes and the profitability of and entry into the production of private notes. Finally, the Swedish record is summarised.

The legal framework of private note issue

The legal framework exercised a decisive influence on the development of Swedish commercial banking in the nineteenth century. It determined the types of banks that developed, and the size and performance of the commercial banking system.[2] Several other laws and government decisions influenced competition and profitability within the banking system, the most important being usury laws before 1864, restrictions on the note denominations banks could issue and taxes on private note issue. Private note-issuing banks had to apply for a charter to start business, so the government, that is the Crown, decided the rate of entry and thus the degree of competition in the market for notes.

Because private issuance of notes was a hotly disputed political issue, most of the legislative changes concerning commercial banking dealt with it. The Crown and the nobility were supportive of the private note-issuing banks, but as the influence of the nobility in the Riksdag and in the cabinet declined over time due to parliamentary reforms, the government eventually phased out private notes.[3]

2 For a comprehensive survey of the legal foundations of the Swedish financial system during the period 1772–1870, see Fregert (2022).

3 Ögren (2019) gives a detailed account of the political controversies surrounding the regulation of commercial banking in the period 1822–1921. See also Nilsson (1981).

The royal ordinance of 1824

At the end of the eighteenth century, several unlimited joint-stock banks (*diskonter*) were founded in Sweden. They acted as commercial banks, financing their lending mainly through the Riksbank, which was formally the bank of the Riksdag. Thus, they were generally subordinate to the Riksbank and dependent on loans from it. The *diskonter* failed during the years 1815–17 because of severe financial problems, including runs on them by the public. After these events, the Riksbank remained the sole bank in Sweden.

In the Riksdag of 1823, there was general unanimity that institutions other than the Riksbank should be allowed to carry out financial intermediation. As a result, a royal ordinance of 1824 authorised private banks. Its preamble stated that the aim was to facilitate the establishment of private companies acting as intermediaries between owners of capital and borrowers of capital. Furthermore, these companies should be independent of the Riksbank in their business.

The ordinance was only four paragraphs long. It became, however, the legal basis for the Swedish commercial banking system and, unintentionally, for the issuance of private notes. The main points were as follows:

- Banks were prohibited from charging more than the maximum legal rate of interest on their lending.
- Private persons intending to set up a bank had to apply to the Crown for a charter (*oktroj*). The charter ran at the most for ten years, then an application for a renewal could be made. The Crown had to approve the rules and regulations of the company.
- The banks should be organised as a partnership (*handelsbolag*) with unlimited liability. Shareholders were responsible for the business of the bank 'one for all and all for one' (*en för alla och alla för en*).
- The names of the shareholders and the rules of the company as well as all major changes pertaining to the company and its shareholders should be published in newspapers and registered at a court of law.
- Finally, bank charters should clearly state that banks 'neither in the present nor at any time in the future should expect to receive any support from public funds, and that the government authorities would under no circumstances be involved in or be contributing to the support of the activities of the banks.'

Three things are worth noting concerning the ordinance of 1824. First, private banks were to be organised as joint partnerships with unlimited liability. Throughout their existence, the organisation of the note-issuing commercial banks remained based on the principle of the joint responsibility of their owners, i.e. on unlimited liability. This was termed the principle of *solidariskt ansvar*, literally 'solidary responsibility'. For this reason, private note-issuing banks were called the *solidariska banker*. They were also classified as *privatbanker*, *sedelbanker* and *enskilda banker* in Swedish. In this text, they will be called *enskilda* (private) banks.

Joint-stock banking based on limited liability was introduced later in the nineteenth century. However, joint-stock banks were not allowed to issue notes. Instead, they based their activities on attracting deposits and on other methods of borrowing from the public. As these banks were joint-stock companies, in Swedish *aktiebolag*, they were generally called *aktiebanker* as opposed to the *enskilda* banks.

Second, the involvement of the Riksbank with the *diskonter* was still fresh in memory, discouraging the government and the Riksdag from any financial engagement with the new banks. The new banks were supposed to compete with the Riksbank, not cooperate with it. The public should thus not associate the new banks with the *diskonter*. For this reason, the ordinance of 1824 stated that the charters of the new banks should declare that no official support should be expected, clearly distinguishing them from their forerunners.

Third, the ordinance of 1824 did not mention the issuance of banknotes. The Riksbank was already issuing notes. The legal right to issue private notes was unclear. According to the constitution, only Riksbank notes were legal tender, thus private notes could be refused as payment for taxes. The thought that the new banks were potential suppliers of private notes apparently did not occur to the lawmakers. Still, the ordinance of 1824 became the legal foundation of the first note-issuing private banks.

More than seven years elapsed before an application for a bank charter was made. The main reason why no commercial bank was founded in the 1820s is probably the usury laws that applied to commercial banking. The maximum legal rate that a commercial bank could charge for its lending prevented it from paying competitive rates in the bidding for funds. A free informal capital market existed, specifically in Stockholm and Gothenburg, where wealthy private individuals, companies and various institutions acted as financial intermediaries, attracting funds from surplus units and lending to borrowers.[4] The usury laws did not apply to those active as lenders on the informal markets. Consequently, a bank faced difficulties in attracting funds from prospective depositors or lenders as long as the maximum legal rates were set below prevailing market rates.

As support for this explanation, one can point to the effects of the gradual liberalisation and the final repeal of the usury laws in the 1850s and 1860s. The volume of interest-bearing bank deposits expanded rapidly compared with previous decades as well as in relation to the growth of the note issue. Before the 1860s, private banks had to rely almost solely on their note issues to obtain funds for their lending. In the 1860s, the first joint-stock banks that did not issue notes were also founded. Initially, they remained small compared to the size of the *enskilda* banks.

In 1830, three merchants from the town of Ystad in the southernmost part of Sweden applied for a bank charter. The privilege was secured and in 1831 the Skånska Privatbanken, later the Skånes Enskilda Bank, started business. The most striking feature of its operation was that it immediately began to issue notes. The rules of the company, given in the charter granted by the Crown, did not mention banknotes. However, the regulations of the bank were written in such a way that it could issue non-interest-bearing certificates of deposit with denominations lower than 20 riksdaler, payable on demand to the bearer. This paragraph in the regulations was likely written by a clergyman familiar with foreign banking systems and instrumental in the organisation of the Ystad bank (Brisman 1924: 84; Kock 1931: 63–64). Thus, the founders of the bank seemingly planned from the very beginning to supply the public with certificates that for all practical purposes were identical to banknotes.

The government granted a charter in 1832 to Wermlands Provincialbank, later Wermlands Enskilda Bank. This bank, too, started to supply the public with its own notes, although the rules of its charter made no mention of such an activity. Four new banks secured charters in 1836–37 with explicit provisions in their charters for issuing notes. The commercial banking system expanded rapidly in the 1830s. The six private banks had between them founded three branch offices by 1840 (see Table 15.1).

The notes of the private banks were quickly accepted by the public and became the major source of finance for these banks. Although, they competed with Riksbank notes, the government did not thwart the notes of the private banks. One reason why no steps were taken against private notes

4 For a survey of the informal credit markets in Sweden in the nineteenth century, see Fregert (2022).

in the 1830s was that public opinion was positive towards private banks at this stage. Information about the Scottish banking system had spread to Sweden and there was a belief that private banks required the right to issue notes to stay in business.

Table 15.1 Bank offices in Sweden, 1840–1900

Year	*Riksbank*		*Enskilda banks*		*Aktie banks*		*Commercial bank offices*
	(1)	(2)	(1)	(2)	(1)	(2)	(3)
1840	1	2	6	3			9
1850	1	2	8	7			15
1860	1	3	11	13			24
1870	1	3	24	74	4	6	108
1880	1	6	25	114	12	11	162
1890	1	11	25	123	19	12	181
1900	1	18	26	157	40	56	279

Columns (1) head offices, (2) branch offices, (3) total commercial bank offices, excluding Riksbank offices. The total commercial bank offices shown in column (3) is the sum of the head and the branch offices of the *enskilda* banks with unlimited liability and the *aktie* banks with limited liability. The table shows that the note-issuing *enskilda* banks had more branch offices that the *aktie* banks, which lacked the right to issue banknotes.

Sources: Sjöstedt (1901) and Jonung (1989).

The law of 1846

The charters of the six private banks elapsed in 1847. As sentiment at the Riksdag of 1844–45 was strong against private notes, the Riksdag suggested legislation that was quite restrictive towards the note-issuing banks. The Crown, however, put forth a new law in 1846 that was surprisingly favourable to them. This law summarised and codified the banking practices that had gradually evolved during the first charters of the private banks. The law of 1846 is an extension and development of the ordinance of 1824; it comprised 17 paragraphs, primarily dealing with the note issue. Most importantly, the law contained rules concerning the assets required to back the note circulation.

The main points of the new legislation in relation to the statutes of 1824 were as follows:

- The subscribed capital (the *teckningssumma* or the *grundfond*) should be at least one million kronor. At least 10 per cent of this capital should be paid in cash (i.e. Riksbank notes or silver coins) before the bank could start its business, and then at least another 15 per cent within a year.

- The rest of the subscribed capital, at the most 75 per cent, could consist of Riksbank notes, coins, gold and silver as well as real estate mortgages, shares (though not the shares of an *enskilda* bank) and bonds as approved by the bank. A representative of the Crown had the right to decide the collateral to be accepted. The collateral was to be deposited in a safe with a special lock requiring two keys, one held by the bank, the other by a representative of the Crown. The bank was not allowed to reduce the collateral as long as it was carrying out its business. In case the bank was dissolved, the collateral was first to be used to cover the liabilities of the bank.
- Notes issued by an *enskilda* bank were payable on demand to the bearer. The minimum denomination was 5 kronor, and then 10 kronor starting in 1851.
- An *enskilda* bank was not entitled to issue notes greater than the sum of vault cash, i.e. Riksbank notes and coins, deposits with the Riksbank, and securities held by the bank for cash credits granted to the extent that the credits had been utilised, up to a maximum corresponding to 50 per cent of the entire subscribed capital of the bank. If a bank issued more notes than this sum, it should correct the situation within one month.
- A shareholder of the bank or his heirs was not entitled during the term of the charter to sell his share unless the company gave its consent at a general meeting.
- The bank was to send a financial statement at the end of each quarter to the Crown. A representative of the Crown had the right to inquire into the business of the bank at any time.
- The bank was to send proofs of its notes to the Ministry of Finance as well as to publish in the press the names of those persons that were to sign the notes.
- The main office and the branches of a bank were only to be in towns.
- The Crown was entitled to repeal the charter during its term if a bank did not follow the law.
- The joint responsibility of the shareholders, i.e. unlimited liability, was maintained.

All the major changes introduced in the law of 1846 pertained to the note issue of the *enskilda* banks. They also faced several new regulations aimed at guaranteeing the redeemability of their notes into Riksbank notes and coins. The rules in points 1 and 2 required a bank not to start issuing notes without satisfying minimum cash and secondary reserve requirements. The reserve requirements in point 4 served as an additional protection against overissue. The compulsory consent by a meeting of the bank to any transfer of ownership of shares prevented speculation in bank shares and induced close monitoring of the management of the banks by shareholders.

The charters of the six existing banks were all renewed, and two new banks were chartered in 1847–48. As the law of 1846 was largely a codification of various rules found in the charters of the private banks that had developed before 1846, the law did not prevent the growth of commercial banking after 1846.

The legislation of 1855

In 1855, a few revisions in the law of 1846 were made. The number of shareholders was to be at least 30, the minimum note denomination was reduced to 5 kronor, all the notes of *enskilda* banks were to be of the same denominations and of uniform size for a given denomination, *enskilda* banks were not allowed to trade in foreign and domestic bills and interest-bearing securities, nor in gold and silver. Previously, the law of 1846 had forbidden banks to buy and sell anything but silver and gold.

These minor modifications did not change the legal framework of the *enskilda* banking system in any fundamental way. It continued to expand after 1855. Four new banks secured charters in 1856–57. Several applications for charters were refused, however, because the authorities wanted to promote the growth of the *filial* banks, a new type of bank associated with the Riksbank and introduced by legislation in the Riksdag in 1851.[5]

In the 1850s, the combined note issue of the *enskilda* banks began to approach the volume of Riksbank notes in circulation (Figure 15.1). Consequently, the market share held by *enskilda* banknotes was rapidly getting as large as that of the Riksbank notes (Figure 15.2).

The legislation of 1864

The Riksdag of 1862–63 suggested several radical changes in the legislation pertaining to the banking system. First, the maximum limit on the rate of

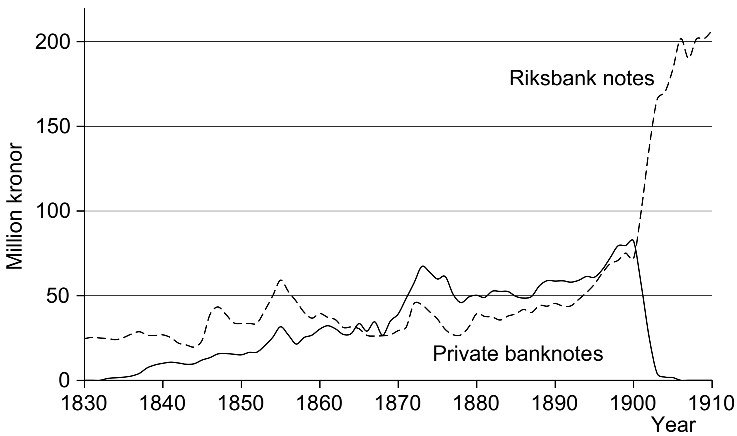
5 The section below on Countermeasures by the Riksdag deals with the record of the filial banks.

interest to be charged by banks was abolished. In Swedish, this was called *räntans frigivande*, literally the liberation of the rate of interest. This step proved to be a crucial prerequisite for the rise of deposit banking. Second, a new law permitted the establishment of commercial banks that did not issue notes. These banks could be organised either as joint-stock companies with limited liability or as companies with unlimited liability. Third, the growth of the filial banks was effectively halted by a decision to reduce the financial support they received from the Riksbank. Fourth, a comprehensive collection of statutes was adopted to cover the *enskilda* banks. The law of 1864 replaced the legislation of 1824, 1846 and 1855, essentially by extending the earlier provisions and making them more detailed. No far-reaching alterations were introduced. The most notable changes were:

- The denominations of *enskilda* banknotes were restricted to 5, 10, 50, 100 and 500 kronor. They were not to be 'of the same design' as the notes of the Riksbank. *Enskilda* banknotes were to be redeemed in coins or the notes of the Riksbank if presented at the main office of the *enskilda* bank.
- If payment was not received on demand, the holder of the banknote was entitled to obtain principal and interest at 6 per cent per year from the date payment had been refused until payment was obtained.
- The capital of the bank should be fully paid-up in cash within a year of the bank opening its business. Then at least 60 and at the most 75 per cent of the capital should be converted into public bonds.
- The names of the shareholders with unlimited liability were to be published in the newspapers.
- A shareholder who was a director of the bank was to deposit at least one of his shares with the bank. This share was to remain deposited with the bank as long as he remained in office.

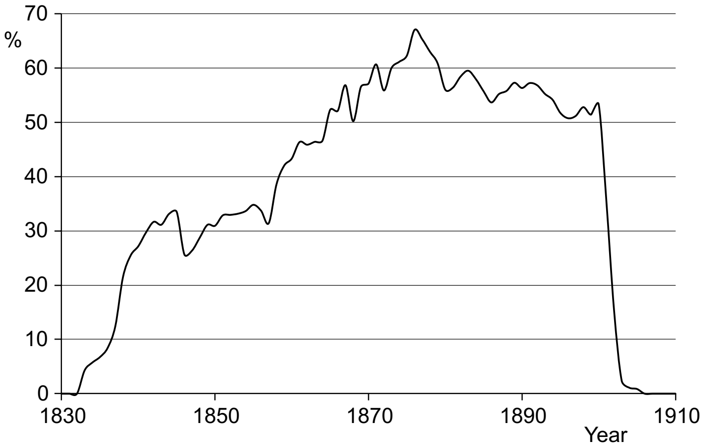
The banking law of 1864 changed only to a minor extent the legal framework for the *enskilda* banks. The rules concerning the note issue were made slightly tighter. The changes pertaining to the usury laws and the joint-stock banks had more profound effects on the growth of commercial banking. The first joint-stock banks in Sweden were founded in the 1860s. Bank deposits rapidly became an attractive source of finance and the *enskilda* banks started to pay more attention to their deposit activities than hitherto. The growth in deposits had commenced at the end of the 1850s, when banks could pay higher rates on their deposits than previously because of the economic crisis of 1857.

Figure 15.1 Volume of notes in circulation issued by the Riksbank and the *enskilda* banks (private note-issuing banks), 1830–1910 (million kronor, end-of-year data)



Source: Tables A7.2 and A7.3 in Edvinson and Ögren (2014).

Figure 15.2 Market share of private notes, 1830–1910 (per cent)



The market share is calculated as the ratio between private notes in circulation and the total volume of notes in circulation, i.e. as the sum of private and Riksbank notes.
Source: Tables A7.2 and A7.3 in Edvinson and Ögren (2014).

The legislation of 1864 became the legal foundation of Swedish commercial banking for the rest of the nineteenth century. Because of Sweden's adoption of the gold standard in 1873, the law of 1864 was slightly revised in 1873. The reserve requirements of the *enskilda* banks were changed to include gold in their reserves. The banks were to redeem their notes in gold on demand at their main offices. This change should be regarded as an attempt at introducing the gold standard in Sweden by increasing the holdings of gold outside the Riksbank. However, as the Swedish public never held or used gold widely as a store of wealth or as a medium of exchange, this change in the law did not matter much and merely forced the *enskilda* banks to purchase only small amounts of gold.[6]

The other main modifications of the law of 1864 made in 1873 concerned the minimum note denominations of the *enskilda* banks. Permission to issue notes of 5 and 10 kronor was granted only temporarily. Furthermore, a fine of 1,000 kronor a day was to be paid by a bank that fell short of its reserve requirements. The banks were also requested to send a monthly report – previously it was quarterly – to the Ministry of Finance. All these changes tightened the rules about note issue, although none of them became an effective hindrance to the growth of the *enskilda* banks, as seen from Figure 15.1.

In the 1860s and 1870s, the commercial banking system expanded rapidly, most noticeably in the first halves of these decades. Between 1864 and 1866, 13 new *enskilda* banks were chartered (Table 15.1). Starting in the 1860s, the *aktie* banks and the *enskilda* banks existed side by side, both competing in the market for deposits, while the *enskilda* banks competed with the Riksbank in the market for notes.

By the first half of the 1870s, practically all of Sweden was covered by note-issuing banks, competing with the Riksbank. By 1875, 25 banks were in operation. Only one new bank was chartered after 1875. It is indicative that this was an *enskilda* bank in the northernmost part of Sweden, starting business in 1893 as Norrbottens Enskilda Bank in the city of Luleå. This area of Sweden was financially underdeveloped by comparison with the rest of the country.

Banking legislation remained basically unchanged in the last quarter of the nineteenth century except for the prohibition of the private notes of 5 and 10 kronor around 1880. This step was detrimental to the expansion of the note issue of the *enskilda* banks, leaving the Riksbank as the sole supplier of notes of these denominations. Nevertheless, the stock of private notes continued to grow (Figure 15.1).

6 See Jonung (1984) on the workings of the classical gold standard in Sweden.

Opinion in the Riksdag remained, however, hostile to private banknotes. New proposals for legislation to give the Riksbank a monopoly of note issue were continuously presented. Eventually, the Riksdag adopted in 1897 a law that gave the Riksbank this long-sought privilege. Private notes were to be phased out of circulation by 1903, while the *enskilda* banks were to be compensated for the loss of their notes by loans and advances from the Riksbank to facilitate the transition. However, the terms offered were not attractive enough, so the volume of private notes continued to expand, reaching an all-time high in 1900. In response, the Riksdag changed the law in 1901, making its offer more attractive. Now *enskilda* banks started to reduce the volume of notes in circulation. By the end of 1903, private notes held by the public were negligible. In 1906, *enskilda* banks were no longer legally required to redeem any remaining private notes they had previously issued.

The elimination of the private notes went smoothly. The public was informed about the legislation through the newspapers and announcements in the churches. No banks experienced financial difficulties. Several *enskilda* banks reorganised as joint-stock banks with limited liabilities for their owners. Their gold reserves, previously held as backing for the note issues, were sold to the Riksbank to be used as reserves backing the growing volume of Riksbank notes in circulation.

The market for notes

The Riksbank and the *enskilda* banks competed in the market for notes for 70 years. During these years, the market shares of private and Riksbank notes underwent considerable changes. As displayed in Figure 15.1 and Figure 15.2, the rapid growth of private banknotes from the early 1830s to the mid 1870s is striking. The volume of *enskilda* banknotes in circulation increased from 2 million kronor in 1834 to close to 70 million kronor in 1875.

Riksbank notes exhibited a different pattern. In the 1830s and 1840s, they fluctuated around 35 million kronor, then expanded in the 1850s, reaching a peak of 57 million kronor in 1857. After the crises of 1857–58, they declined, until the end of the 1860s. The volume of notes in circulation was below 25 million kronor in 1869 – an all-time low for Riksbank notes while the 1860s was a decade of rapid expansion of private notes.

The volume of Riksbank notes held by the public (total notes minus those commercial banks held as reserves) displays the same long-run pattern as the total circulation, although the difference between these two measures increased as the *enskilda* bank holdings of Riksbank notes expanded. Riksbank notes held by the public reached their lowest level in 1869 (see Jonung 1989). It is indicative that the Riksbank started in that year to accept the notes of the private banks. By then the public's holdings of private notes was roughly 2.5 times as large as its holdings of Riksbank notes. The holdings of private notes by commercial banks were not very large, at the most a few million kronor (see Jonung 1989).

During the last half of the 1870s, the volume of *enskilda* and Riksbank notes declined sharply because of the depression following the boom of the early 1870s. It then remained roughly constant until the 1890s. The volume of notes expanded rapidly by the end of the century, the supply of private notes surpassing the level of 1874, reaching its highest level shortly before private notes were taken out of circulation (see Figure 15.1).

Between 1875 and 1880, market shares changed substantially. The share of Riksbank notes declined between 1875 and 1877, then expanded between 1878 and 1880 (see Figure 15.2). These pronounced swings were caused by changes in the legislation concerning the denominations supplied. The Riksdag decided in 1875 that the Riksbank should withdraw its notes of 1 krona. At that time this was the smallest denomination in circulation. After this step, the Riksbank and the *enskilda* banks both supplied 5 kronor notes as the lowest denomination. The abolishment of the 1 krona note caused a sharp decline in the market share of Riksbank notes. However, when the 5 kronor notes of the *enskilda* banks were prohibited in 1878, the Riksbank became the sole supplier of this denomination. Consequently, it increased its market share considerably in 1878–80. The *enskilda* banks, however, were able to increase their issue of 10 kronor notes and compensate to a small extent for the loss of their 5 kronor notes.

These sharp fluctuations in market shares indicate that the notes of the Riksbank and of the *enskilda* banks were close substitutes. The public chose the composition of denominations it found most attractive, paying hardly any attention to the origin of the notes. The fact that the *enskilda* banks were able to increase their issue of 10 kronor notes after 1880 can most readily be explained by the large number of offices of these banks compared to the offices of the Riksbank.

The increase in the market share of Riksbank notes in the 1880s and 1890s was due to two factors. First, the prohibition of 5 kronor note for the *enskilda* banks was a severe blow to them. Second, the Riksbank founded branch offices in the last decades of the nineteenth century. Despite these adverse developments, the *enskilda* banks managed to expand their note issues from the end of the 1880s, albeit at a slower rate than the Riksbank.

After the disappearance of private notes at the turn of the century, the supply of Riksbank notes expanded rapidly, replacing private notes. However, the share of notes in the money stock declined after the Riksbank obtained the monopoly on issuing notes. This suggests that the Riksbank was not able to completely replace private notes by Riksbank notes.

The economics of private banknotes

The importance of the note issue to the enskilda banks

The first *enskilda* banks had a business model based on the issuance of notes. Notes were the major liability of the banks and the circulation of notes financed their lending. In fact, deposit-only commercial banks were not founded until the 1860s. Thus, *enskilda* banks derived their profits from issuing notes during the first four decades of Swedish commercial banking.

Deposits were initially very small compared to note circulation for the private banks, as seen from Table 15.2, which shows the volume of notes, demand and time deposits of the note-issuing commercial banks for selected years 1835–95. Deposits did not surpass note issue until 1867. After then their share continually increased. In the early stages of the *enskilda* banks, some even refused to accept deposits from the public. Generally, these facilities were subject to various restrictions. For example, there are reports that banks asked depositors to withdraw funds when the banks had difficulty finding profitable outlets for their deposits. Other banks charged their customers for the right to deposit money.

A major reason why the first banks relied to such an extent on notes rather than deposits is found in the usury laws. These prevented banks from paying competitive interest rates on their deposits. Instead, the unregulated free market offered higher rates and attracted funds for which the banks could not compete. As long as the regulations on interest rates were effective, the issuance of notes remained the main source of revenue for banks.

Another reason why deposits did not surpass private notes until the 1860s is probably that the public was more accustomed to the use of notes than deposits. Riksbank notes had been circulating in Sweden for a long time, at least since the early half of the eighteenth century. Apparently, it took more time for the commercial banking system to establish public confidence in its deposit facilities than in its notes.

After the abolition of usury ceilings at the end of the 1850s and early 1860s, deposits of commercial banks increased rapidly. The foundation of the Stockholms Enskilda Bank in Stockholm in 1856 was a breakthrough for deposit banking. This bank was the first *enskilda* bank with its main office in the capital. A large capital market existed by then in Stockholm, from which the new bank could attract funds. The Stockholm bank had to rely on deposits to a larger extent than banks in the countryside because the Riksbank was a strong competitor in the market for notes in the capital. Instead, the Stockholms Enskilda Bank tried to spread its notes to other parts of Sweden (see Nilsson 1981).

Table 15.2 Notes and deposits of the *enskilda* banks, selected years 1835–95

Year	*Notes*[a]	*Demand deposits*	*Time deposits*
1835	1.5	0.1	0
1845	12.0	1.0	0.4
1855	31.6	3.5	1.2
1865	33.5	7.2	20.6
1875	59.8	21.4	130.8
1885	49.7	31.0	200.3
1895	60.9	50.3	246.1

[a] Million kronor, end-of-year data: notes in circulation.

Source: Jonung (1989).

To sum up, the right to issue notes was the basis for commercial banking in Sweden in the nineteenth century. Without it, the development of banking would most likely have been delayed. Notes were a sizeable share of the liabilities of the note-issuing banks right up to the abolition of private banknotes (Table 15.2).

Methods for increasing the circulation of private banknotes

The issuance of notes was initially the most important activity of the private banks. As the profitability of note issue was dependent on the volume of notes held in circulation, ignoring the costs of administering the note supply, the *enskilda* banks gradually developed techniques to increase the volume of notes held by the public. These methods aimed at bolstering public confidence in private notes as well as facilitating their use.

The *enskilda* banks also aimed at withdrawing Riksbank notes from private circulation by exchanging them for their notes. This latter activity was intimately connected with the cash management of the private banks, because Riksbank notes were their predominant reserve asset. By replacing Riksbank notes with their own notes, the *enskilda* banks could expand their note issues and simultaneously obtain reserves. According to Brisman (1934: 24), the 'catching of legal tender' (*att uppfånga riksmynt*) was the favourite sport of the *enskilda* banks that they carried out *con amore*.

The use of note-exchangers

That private banknotes were not legal tender was a major problem facing the *enskilda* banks. Their notes were not accepted as payment for taxes, customs duties and other fees to the government. Private sellers could also legally refuse to accept private banknotes. Thus, in certain transactions, holders of private notes were forced to exchange them for Riksbank notes, which were legal tender. There were several complaints against the *enskilda* banks about this state of affairs.

The private banks developed ways of eliminating these obstacles. They supplied the proper government officials, specifically the tax collectors (the *landskamrer* and the *kronofogde*) with appropriate funds of Riksbank notes and coins to use in exchanging private banknotes for legal tender notes. This fund was termed the *växlingskassa,* literally the exchange fund. Private banks also paid government officials to exchange private notes and to manage the exchange funds. Other officials were also paid for similar services as *sedelväxlare*, literally note exchangers. Through such systems the private banks increased the attractiveness of their notes and thus the demand for them. Eventually, as mentioned above, the private note supply was so large that the Riksbank was forced to accept private notes at par with Riksbank notes. This happened in 1869.

Clearing of private notes

The first private note banks did not always accept the notes of other private banks at par. Gradually, however, they agreed to redeem each other's notes on demand at par. Furthermore, the note exchangers of the private banks exchanged the notes of other private banks. In this way, the *enskilda* banks maintained collectively the full convertibility of their notes. This system developed spontaneously.

Counterfeits

Another method of maintaining the demand for private notes concerned the treatment of counterfeits. During the first decades of private circulation, a large number of notes of different sizes, designs, colours and denominations existed, facilitating the rise of counterfeit notes. The public could hardly be expected to detect all the counterfeits. Private banks generally accepted and redeemed counterfeits that were well designed (Brisman 1934: 23–24). In cases of badly designed counterfeits, banks refused to accept them, and holders had to incur the losses.

Denominations

A key method of increasing the demand for notes was to supply the public with notes of low denominations. In the 1840s, the *enskilda* banks supplied no less than seven denominations between 3 and 15 kronor, while the Riksbank had only one denomination in this range. Low-denomination private notes were more profitable than the higher-denomination notes because they tended to stay out longer in circulation. Banking legislation, however, eventually restricted the number of denominations as well as requiring standard sizes for private notes.

Note spreaders

Private banks employed various note spreaders (*sedelspridare* or *kommissionärer)*. They were paid by a bank to disburse its notes. The basic idea was to disburse the notes as far as possible from the main area of circulation of the notes. In this way, they remained in the hands of the public longer before returning to the main office for redemption. There are several cases of this practice reported in the literature on the *enskilda* banks, although the system of note spreaders was apparently not itself widespread.

Most *enskilda* banks had two or three such employees (Brisman 1934: 24). It is reported that the Östergötlands Enskilda Bank employed a private banking firm to circulate its notes in the district of Jämtland in northern Sweden, 'from where they could not come back very soon' (Brisman 1934: 22).

The Örebro Enskilda Bank, with its main office in central Sweden, opened a small branch (*kommissionskontor*) in the town of Strömstad at the border with Norway, hoping to circulate its notes in Norway. The Wermlands Enskilda Bank tried the same policy. As the Stockholms Enskilda Bank – the first *enskilda* bank with its main office in Stockholm – met with strong competition from Riksbank notes in the capital, the new bank tried to use note spreaders to circulate its notes in northern Sweden, where hardly any *enskilda* banks were operating.

Branch offices

The extension of branch offices contributed to the spread of private notes, as the branch offices extending loans were using the notes of the bank. Table 15.1 displays the number of branch offices of the *enskilda* banks and the joint-stock banks. It is significant that the *enskilda* banks were guaranteed credit from the Riksbank when private notes were abolished at the turn of the century, provided they did not close any branches. Apparently, it was feared that some branch offices would be unprofitable and then closed when the *enskilda* banks lost their right to issue notes.

Recall of cash credits

The *enskilda* banks supported the development of lending on cash credit, a system imported from Scotland, although it was unprofitable per se. Borrowers of cash credit were asked once a year to repay their full debt by a certain date. Then the *enskilda* bank obtained payment in Riksbank notes, coins and various private banknotes. The next day the loan was extended again but now it was paid out only in the notes of the *enskilda* bank giving the cash credit. This was an effective method for a single bank to replace the notes of its competitors. The Örebro Enskilda Bank even required its borrowers of cash credit to repay their loans twice a year. This system of yearly payments of loans to extract the notes of other banks apparently declined after the 1850s.

Countermeasures by the Riksdag

The Riksdag, the owner of the Riksbank, opposed new entrants to the market for notes because they undermined the profitability of the Riksbank.

The parliament took several legislative steps to counteract the competition from the *enskilda* notes. These steps involved establishing the filial banks, founding Riksbank branch offices in every provincial capital, taxing private notes, prohibiting private notes of small denominations and eventually prohibiting private notes outright. Among these measures, the establishment of filial banks turned out to be the least successful one.

Opposition to private notes was reflected in the Riksdag by continued proposals to impose various restrictions on the *enskilda* banks. The view that the Riksbank should be given a monopoly right to issue notes was strong, in particular among farmers and clergy in the Riksdag. One result of this critical attitude was that in 1851 the Riksdag established subordinate institutions, the filial banks, literally branch banks. The Riksbank had by then besides the main office in Stockholm only two branches, one in Gothenburg and one in Malmö. These were the three biggest towns in Sweden at the time.

The filial banks were to be founded by private individuals and were to obtain credit from the Riksbank. They did not have the right to issue notes of their own and were thus similar to the *diskonter,* as they were dependent on the Riksbank for the financing of their lending. The idea behind the filial banks was to prevent the growth of the *enskilda* banks by giving the Riksbank a large network of branch offices, spreading Riksbank notes and competing with the *enskilda* banks in the market for loans and advances. The filial banks represented a method of combining private capital with the activities of the Riksbank.

The filial banks received charters like those of the *enskilda* banks, except that they did not have the right to issue notes. Instead, they were supposed to deal in the notes of the Riksbank. There were 22 filial banks by 1862.

The Riksdag in 1862 decided that the Riksbank should reduce its support to the filial banks, which had proved to be less profitable than initially expected. The number of filial banks declined, and the last one had closed by 30 June 1875. They simply did not prove to be competitive with the private commercial banks. Many were merged or taken over by *enskilda* banks. A few reorganised as joint-stock banks.

Although the Riksdag established the filial banks to be close competitors to the *enskilda* banks by spreading Riksbank notes, no rules forced the filial banks to deal exclusively in the notes of the Riksbank. They could issue certificates of claims on the Riksbank (*assignationer*) with a minimum denomination of 100 kronor. The certificates represented a new kind of note, but due to their high denomination they were not in great demand by the public. Instead, the filial banks turned to *enskilda* banks with their certificates and exchanged them for private notes of smaller denominations. This was advantageous for both types of banks. The filial bank obtained an interest-free loan from the Riksbank and the *enskilda* bank achieved a larger circulation for its notes, simultaneously receiving a claim on the Riksbank that was for all purposes identical with Riksbank notes and specie.

Some filial banks accepted payment from *enskilda* banks for circulating notes. This was specifically the case with the Stockholms Enskilda Bank, which circulated its notes in northern Sweden through an arrangement with some northern filial banks. Cooperation between the filial banks and the *enskilda* banks sometimes became quite close. In Örebro, the filial bank was regarded by the public as a branch of the Örebro Enskilda Bank and not as a branch of the Riksbank. The management of the two banks sometimes met and their interest rates were identical. The filial banks, initially organised to curtail the growth of the *enskilda* banks, thus turned out to do just the opposite.

To sum up, the *enskilda* banks displayed considerable ingenuity in promoting the circulation of their note issues. They were able to adjust or circumvent obstacles to the adoption of their notes by the public. They were more efficient than the Riksbank in adapting to the demands of the public, most prominently in supplying notes of low denominations. Through many branch offices, the stock of private notes expanded rapidly and became larger than the volume of Riksbank notes within less than four decades after the establishment of the first *enskilda* bank.

Profitability and entry

Initially, there was no great demand to take part in founding note-issuing private banks. Apparently, there was uncertainty concerning the consequences of joint responsibility and the profitability of the new banks. The subscription to shares of new banks was sometimes slow and a few banks opened for business before the full subscription of their share capital. The first *enskilda* banks turned out, however, to be highly profitable. The returns varied between 13 per cent for the Wermlands Bank to 22 per cent for the Smålands Bank. The average return was 18 per cent on the capital paid in by the owners during the years 1831–47 (Brisman 1924: 221). High profitability became another subject of criticism against the private banks.

Even in the 1850s, the returns to the shareholders were sizeable. The average for the *enskilda* banks was about 16 per cent per year. Losses remained extremely small. Between 1846 and 1855 the total losses of the eight *enskilda* banks were around 14,000 kronor. Brisman (1934: 22) suggests that a safer banking business had probably not existed in any other country.

The high profitability of the note-issuing banks attracted new entrants. However, the Crown restricted entry by not granting all applications new charters. In 1858, for example, eight applications to open new banks were refused on the argument that new entrants would be a threat to the Riksbank. One consequence was that the *enskilda* banks in business could continue paying high dividends to their shareholders as well as continuing to compete with the Riksbank.

As the shares of private banks became an attractive investment, the old shareholders were reluctant to let any new shareholders enter when the charters were renewed. Prospective new shareholders who tried to get shares in the Östergötlands Enskilda Bank when its charter was renewed after 1855 were prevented from so doing by the old owners. They applied and were given a charter for a new bank, but in the small town of Vadstena, a considerable distance from the main office of the Östergötland*s* Enskilda Bank. None of the applicants lived in Vadstena.

Between 1865 and 1875, many new *enskilda* banks were established, specifically when various filial banks were reorganised as *enskilda* banks. The number of *enskilda* banks remained practically constant from 1875 to the turn of the century. During these years, the profitability of note issue declined for various reasons. First, Sweden was now covered by offices and thus by the notes of the private banks. The monopoly position of the original *enskilda* banks had thus been eroded. Second, the Riksbank founded several branch offices in the countryside. The aim was to have one office in every province to promote the spread of Riksbank notes. Third, the Riksdag had started to tax the note issues of the private banks.

The first tax on notes was levied by the Riksdag of 1856–60, at 0.2 per cent of the maximum note circulation during the year. It was later raised to 0.5 per cent in 1885 and in 1889 to 1 per cent. Taxation made the note issue of the banks less profitable. Restrictions on the denominations of the *enskilda* banknotes had the same effect. The prohibition of 5 kronor notes in 1879 was a severe setback for the *enskilda* banks. They were left with the right to issue higher-denominations notes only, which thanks to the development of communications and transport could return more quickly than previously for redemption. Furthermore, the banking law of 1874 obliged the banks to hold gold to redeem their notes, which represented an additional cost to the banks.

To sum up, the profitability of note issue was high during the initial decades of operation of the *enskilda* banks. It was maintained primarily through the restricted entry policy of the Crown. However, profitability eventually declined because of the entry of new banks in the 1860s and 1870s, the introduction of taxes on the private notes, and restrictions on denomination size. When the private notes were taken out of circulation, the value of the privilege of issuing notes, the charter, had declined considerably since the early days of the *enskilda* banks.

Why did no private note bank fail?

A characteristic feature of the Swedish system of private note banks was its stability. During the 70 years of competition between private notes and Riksbank notes, no *enskilda* bank went bankrupt and so caused holders of their notes to incur losses, nor was any bank forced to close, even temporarily, due to financial panics or runs by the public. This fact is remarkable in view of the extent of the competition in the market for notes and of the legislative obstacles private notes faced.

In the US, England, and other countries with private banks supplying notes to the public, there are many cases of banks failing to redeem their notes at par. Some banks overissued to such an extent that the public did not accept their notes at par with legal tender monies. Private banks went bankrupt for other reasons too, such as fraud. In Sweden, however, private notes maintained an uninterrupted exchange rate of one to one with Riksbank notes.

Several factors explain the stability of the *enskilda* notes. The legal rules pertaining to the note issue of the *enskilda* banks appear to be the major reason why private notes were accepted at par with Riksbank notes and why there was no case of overissue. The joint responsibility of the owners of the note-issuing banks was the most important of those rules. Other factors contributed as well.

The effects of unlimited liability

According to the law of 1824 and later banking laws, note-issuing commercial banks were organised as partnerships with unlimited liability. In case of financial problems, the owners of the bank risked not only the capital invested in the bank but their private wealth as well. As the founders of the *enskilda* banks generally were wealthy or prominent people, their incentives were strongly counter to any overissuing.

The incentives to supervise and monitor closely the activities of the bank directors were strong for the individual shareholders. This factor mitigated against any overissuing, risky lending or fraud. In fact, the requirement of joint responsibility may have invited too much prudence and caution by the owners of the *enskilda* banks. Losses on advances and loans remained surprisingly small during the first decades of operation of these banks, and was probably the result of a very careful screening of applicants for loans.

Other rules in the banking laws strengthened joint responsibility. An individual shareholder could not escape his joint responsibility during the term of the charter by selling his shares unless a general meeting of the bank gave its consent to the sale and to the new shareholder. In this way, the remaining shareholders could prevent the entry of a new partner with less wealth than the shareholder leaving the company. Bank shares were thus infrequently traded and could not be the subject of short-run speculation that might have reduced public confidence in the solvency of the *enskilda* banks.

Public knowledge that the shareholders of the *enskilda* banks had unlimited liability fostered public confidence in the private banks and their liabilities. The registration of the names of the shareholders with joint responsibility at a court of law and in newspapers also promoted public confidence. Thus, the belief in the solvency and stability of the *enskilda* banks made the public inclined to expect them always to redeem their notes, reducing the probability of runs on *enskilda* notes.

The role of reserve requirements and bank inspection

The reserve requirements of the note-issuing banks were apparently never an effective restriction on the volume of notes. The *enskilda* banks had as a rule a large volume of unused rights to issue notes (*obegagnad sedelutgivningsrätt*). The legal reserves included assets other than cash, most notably bonds. Banks had considerable freedom to choose the composition of their legal reserves and thus their desired cash ratio. They maintained the ratios they found appropriate. Their choice was apparently never influenced by the requirements of the law, except for the requirements that the banks were to maintain the redeemability of their notes in gold when Sweden introduced a gold standard. This change in the law of 1873 forced a minor reallocation of the portfolios of the banks. Otherwise, reserve requirements were primarily a codification of the actual reserve policy of the banks.

In the 1870s, a bank inspection board was set up, headed by a bank inspector, and empowered to control the activities of the commercial banks. The effects of the bank inspection can be disregarded in the analysis of the behaviour of the banks and the public. The inspector made infrequent inspections, supplementing the supervision available through the monthly reports.

Local monopoly power

The *enskilda* banks were generally local monopolies because the Crown only chartered new *enskilda* banks in towns where such banks did not exist. The local monopoly meant that a bank faced a stable demand in its home market for its notes. This was a source of stability. In the 1880s, when demand for notes fell due to the depression and deflation of that decade, banks closed several branch offices outside the geographic centre of their note distribution, in this way reducing competition in the market for notes.

Denominations

The *enskilda* banks aimed at issuing low-denomination notes, as these notes tended to stay out in circulation longer than notes of higher denominations. Holders of low-denomination notes were less inclined to hedge against any loss from the notes, which would be small. In a panic, such holders would have less incentive to turn to the bank than holders of larger notes. Thus, the right of the banks to issue notes of low denominations before the 1880s had a stabilising effect.

General economic and political stability

All bank runs in the history of Sweden have been the result of either wars or disturbances emanating from abroad. The last seven decades of the nineteenth century was a period of political and economic stability during which Sweden was not engaged in any wars that might result in monetary and financial instability. This period of peace fostered stability in the banking sector. This stability was also cumulative: once the public got used to private notes and did not incur any financial losses on these notes, it created expectations of future stability.

Smallness of the economy

The Swedish economy was small, at least compared with countries such as the US and the UK. In a small economy, information about business activities spreads more rapidly than in a large economy. As the *enskilda* banks generally conducted business within a limited local area, the public could easily obtain information about the banks, their dealings, owners and customers. A rapid dissemination of information worked, per se, as prevention against any overissues.

Government intervention

The preface to the proclamation of 1824 stated that the public should not expect the government authorities to give any support or help to a private bank in financial distress. There seem to be only two cases when they did do so. During the crisis of 1857, the government helped the Skånes Enskilda Bank when fears arose that the bank would fail. It similarly supported the Stockholms Enskilda Bank in 1878 during the banking crisis of that year. The monetary disturbances in 1857 and 1878 emanated from abroad. Thus, government intervention did not occur because of any domestic mismanagement by the banks.

Cooperation among the banks

The cooperation among the *enskilda* banks that gradually developed contributed in various ways to greater stability within the banking sector. For example, banks redeemed the notes of other *enskilda* banks.

In summary, many factors contributed to the stability of the note-issuing commercial banks. The main argument of this section is that the incentive structure created by the joint responsibility of the owners of the *enskilda* banks played the central role. Unlimited liability worked as a self-policing control mechanism that gave strong incentives against any overissue of notes or fraudulent behaviour and thus maintained confidence in the notes.

Most likely, the banking law could have been based solely on joint responsibility. It seems safe to conclude that all the other stipulations in the various banking laws were unnecessary from the point of view of guaranteeing the redeemability of private notes into Riksbank notes.

The record of free banking in Sweden

A common argument suggests that competition in the production of money gives rise to instabilities as well as inefficiencies in the banking sector, leading to the policy conclusion that the provision of money should be either a government monopoly or closely regulated by government authorities. The evidence from the Swedish experience of competition in the issuance of notes does not support such a view. The banking system was characterised by considerable stability, most noticeably by the absence of any bank failures.

The system of competition in private notes was efficient in the sense that private notes quickly established brand names having considerable goodwill and spread through Swedish society circumventing various obstacles raised by the Riksdag. The rapid spread of private notes, an essential part of the growth of the banking system, contributed to the monetisation of the Swedish economy.[7] Private note issue became a foundation of a successful private commercial banking system, in this way contributing to the growth of the Swedish economy.[8] Ögren (2006: 89) concludes that the *enskilda* banknotes 'solved the problem of creating the necessary conditions for a financial system in a poor, under-monetised and geographically dispersed country'.

Many contemporary commentators held a positive view of the performance of *enskilda* notes as well. Johan Leffler, an expert on Swedish banking, praised the decentralised system of *enskilda* banks 'as one of the best in Europe during the past 40 years' and heavily criticised the abolition of *enskilda* notes as an 'unjustified' revolution', claiming that the legislation of 1897 giving the Riksbank a monopoly on note issue was 'a step into the unknown' (Leffler 1901: 35–37).

7 The Swedish monetisation process in the second half of the nineteenth century is examined in Jonung (1983).

8 Relying on econometric evidence, Hansson and Jonung (1997) and Ögren (2009) conclude that the growth of the banking system in the nineteenth century contributed to economic growth in Sweden.

When evaluating the role of the private banknotes 20 years after their abolishment, Karl Langenskiöld, head of the Riksbank 1901–12 and the driving intellectual force behind the design of the 1897 legislation, applauded the role of the *enskilda* notes in the economic development of Sweden. In his opinion, the *enskilda* banks contributed to a decentralised banking system covering all of Sweden, fostering economic progress (Langenskiöld 1923: 247).[9]

The note supply is sometimes claimed to be characterised by increasing returns to scale, i.e. the production of notes is supposedly a case of a natural monopoly. This view is not consistent with the Swedish experience of 1831–1902. Banks were local monopolies early in the period, but as more banks entered, a more competitive situation developed. The fact that there was a queue of new entrants trying to obtain charters as well as the fact that Sweden had from 1876 to 1902 a roughly constant number of note-issuing banks suggests that the production of notes was *not* a natural monopoly.

It is possible that the legal framework based on unlimited liability made the private banks too cautious and too prudent in their lending activities. Their note issue would then be smaller than 'optimal' in the sense of traditional static welfare economics. The private revenue from the marginal unit of private notes was higher than the social marginal revenue, implying that an increase in the note supply would have been socially desirable.

This argument runs counter to the standard argument that private money producers would overissue. In Sweden, the *enskilda* banks, the private money producers, did the opposite; they engaged most likely in underissuing. Two arguments should be raised against this view. First, this criticism should not be aimed at the behaviour of the private banks per se. Their behaviour was determined by the incentives given by the legal framework. A different design of the legal framework of private money production could have induced another outcome.

Second, traditional welfare analysis is not suitable for issues of the dynamic behaviour of alternative institutional arrangements. Initially, the Riksbank was the sole commercial bank in Sweden as well as the bank of the parliament. The competitive process eventually induced changes in the behaviour of the Riksbank, forcing it to reduce its bureaucratic behaviour, a welfare gain commonly ignored in standard welfare analysis. Competition

9 Langenskiöld (1923: 249) held the view that the *enskilda* notes were terminated 'at the right time' because the *enskilda* banks would not have been able to survive the monetary upheaval of World War I.

between the Riksbank and the commercial banks occurred both in the markets for notes and for deposits, with the privately owned firms being most successful in both markets.

Competition finally led the government to grant the Riksbank a monopoly on the note issuance while it stopped competing in the markets for deposits and adopted the functions of a modern central bank. Much suggests that the Riksbank would have been restricted to the role of another commercial bank in the Swedish setting had competition in the monetary sector been maintained. Several commercial banks acted as central banks to provincial banks in the later part of the nineteenth century. The main reason why the bank of the parliament was turned into a central bank was *not* that the Riksbank had any dominant competitive advantage in the markets for notes.

Summary

The history of private notes in Sweden in the nineteenth century represents a unique experience of free banking. The evidence from this episode is favourable to the competitive provision of private monies given a well-designed legal framework. There were clear gains to Swedish society emanating from the competition in the market for notes. Private note banks contributed to the monetisation of the Swedish economy and fostered the growth of the financial system and thus the transformation of the Swedish economy in the nineteenth century.

During the seven decades of private note circulation, no private bank failed to redeem its notes into Riksbank notes. The exchange rate between the two kinds of notes remained one to one. Initially, private note issuance was not controlled by any legal reserve requirements nor by government inspection. The *enskilda* banks were chartered with the explicit rule that the authorities would 'under no circumstances' intervene to support a private bank in financial trouble. Nor could the banks expect to get any help from the Riksbank since it was their main competitor. In view of this, it is remarkable that no private banks failed in Sweden, considering that failures of note-issuing banks in other free banking systems during the nineteenth century.

The legal framework determined the development of the Swedish commercial banking system in the nineteenth century. Banking laws for the most part had a positive impact on the growth of the note-issuing commercial banks as they generally codified practices that had developed in the market process. They did not restrict the expansion of the note issues except for the rules concerning minimum denominations. Most important, the rule of joint responsibility of the shareholders of *enskilda* banks gave rise to well-managed banks that effectively prevented overissues. As the *enskilda* banks gradually came to rely less on notes and more on deposits and as the profitability of the note issues declined due to competition, taxation and the prohibition of small denominations, the right to issue notes lost its value. Eventually the Riksdag abolished private notes altogether, giving the monopoly of the note issue to its own bank, the Riksbank.

16 FREE BANKING IN SWITZERLAND AFTER THE LIBERAL REVOLUTIONS IN THE NINETEENTH CENTURY

Ernst Juerg Weber

The liberal regime: 1830–81

The development of the Swiss monetary system is closely linked to the political evolution of Switzerland from a loose association of independent states to a federal republic.[1] After liberal revolutions in the 1830s and 40s, several Swiss cantons deregulated their financial systems, chartering new banks and allowing the free issue of banknotes. Private bankers with ties to the aristocracy had dominated earlier Swiss commercial banking, but by the mid 1840s the liberals had gained control of the industrialised cantons on the Swiss plateau between the Alps and the Jura mountains. A rift then developed between the industrialised cantons and the alpine cantons on the question of federation. The conflict was aggravated by the fact that the population on the plateau was mostly Protestant, whereas that in the Alps was mainly Catholic. After a brief civil war in 1848, the victorious liberals transformed Switzerland into a federal republic. The federal government removed the cantonal barriers to the free movement of goods, capital and people that had impeded industrialisation, and it replaced cantonal and local currencies with a new unified currency: the Swiss franc.

The cantons retained jurisdiction over the issue of banknotes until the enactment of the Federal Banking Law in 1881. The steady increase in the number of banks that issued banknotes suggests that in most cantons it was easy to obtain a charter to issue notes. The first Swiss bank that issued banknotes was the Depositokasse der Stadt Bern, which was set up by the City of Bern in 1826. It was followed by the Kantonalbank von Bern in 1834,

1 Sources on the Swiss monetary system in the nineteenth century include: Banque Nationale Suisse (1925), Blaum (1908), Bleuler (1913), Debes (1909), Gygax (1901, 1907), Jöhr (1915), Kalkmann (1900), Mangold (1909), Völlmy (1967) and Weisskopf (1948). Bibliographies are provided by Ritzmann (1973) and Schweizerische Nationalbank (2008).

and the Bank in Zürich and Bank in St. Gallen in 1837–38. The number of issuers continued to rise until it reached 36 in 1880. By then, there was one note-issuing bank per 80,000 people, and at least one bank operated in 20 of the 25 cantons. Table 16.1 lists the Swiss note-issuing banks between 1826 and 1906.[2] There were three types of banks: incorporated commercial banks, cantonal banks run by cantonal governments, and local or savings banks with private and municipal ownerships. The table shows when the banks were in operation and when they supplied banknotes (columns 2 and 3), as well as the circulation of notes at the end of each decade (columns 4 to 10). The table does not include the aristocratic private bankers, who abandoned the banknote business (but not banking) in the 1840s.

In the liberal period, the issue of banknotes was free from government interference. Unlike modern central banks, the cantonal banks did not monopolise the circulation of banknotes in their home cantons. There was free substitution between Swiss banknotes even in those cantons where the cantonal bank was the sole issuer of notes. Private banks were usually obliged to submit their articles of association to the cantonal government. These articles often provided for reserve and capital requirements and, in some instances, limited the banknote circulation. But these provisions did not constrain the banks' issuing power, as most restrictions allowed for large margins and the authorities usually relaxed them when they interfered with the development of a bank. The banks included the restrictions in their articles to reassure the public. In particular, banks with less restrictive charters did not grow faster than those with more stringent ones.[3] In the first half of the 1870s, Swiss banks had no difficulty in expanding the circulation of banknotes more than fourfold in response to a dramatic increase in the real demand for notes. This important event will be discussed in the section on the circulation of banknotes.

Free entry implied that the number of note-issuing banks was determined by the net return from issuing notes. New banks took up the issue of banknotes until the return was equal to that from other business activities. It should be emphasised that most Swiss banks did not supply notes, including several large commercial banks that were founded in the second half of the nineteenth century and many local banks that were set up in the first

2 Richter and Kunzmann (2003) documented every Swiss banknote issued during the nineteenth and twentieth centuries.

3 Jöhr (1915: 84–88) surveyed the restrictions on the issue of banknotes in the articles of association of banks.

half of the century.[4] These banks stayed out of the banknote business, not because entry was restricted but because the return would have been too low. This view is confirmed by the fact that several banks that provided for banknotes in their articles of association did not issue them.[5]

Table 16.1 The Swiss issuers of banknotes, 1829–1906

			Banknotes[a]						
Banks	*(A)*	*(B)*	*1840*	*1850*	*1860*	*1870*	*1880*	*1890*	*1900*
I Commercial banks									
1 Bank in Zürich	1837–1906	1837–94	873	1,651	2,154	1,753	4,964	19,873	—
2 Bank in St. Gallen	1837–1907	1838–1907	598	1,967	1,580	1,364	3,986	8,984	17,860
3 Bank in Basel	1844–1907	1845–1907	—	1,179	809	1,277	7,874	19,687	23,825
4 Banque du Commerce de Genève	1846–1907	1846–1907	—	2,025	1,798	3,172	16,214	19,915	23,903
5 Banque de Genève	1848	1848–99	—	328	927	1,526	4,657	4,820	—
6 Banque Cantonale Neuchâteloise[b]	1855–83	1855–83	—	—	1,372	1,982	5,935	—	—
7 Banque Générale Suisse	1853–69	1857–69	—	—	58	—	—	—	—
8 Eidgenössische Bank	1864	1864–82	—	—	—	933	4,883	—	—
9 Banque Commerciale Neuchâteloise	1883–1907	1883–1907	—	—	—	—	—	3,352	7,969
II Cantonal Banks									
10 Kantonalbank von Bern	1834	1834–1910	217	200	579	1,685	7,644	9,692	19,463
11 Banque Cantonale Vaudoise	1864	1847–1910	—	350	3,666	1,385	5,054	9,874	11,384
12 Aargauische Bank	1855	1856–1910	—	—	250	315	2,610	3,961	5,888
13 Banque Cantonale du Valais	1885–70	1858–70	—	—	399	—	—	—	—
14 Solothurnische Kantonalbank[c]	1857	1858–1910	—	—	138	388	2,020	3,984	4,954

4 The Schweizerische Kreditanstalt (Credit Suisse), which was founded in 1856, never issued banknotes. Other important banks that did not issue notes include the Schweizerische Bankverein, the Basler Handelsbank, Leu & Cie., the Bank in Winterthur and the Schweizerische Volksbank. The Bank in Winterthur, the Schweizerische Bankverein and the Basler Handelsbank were the principal nineteenth-century precursors of UBS.

5 These banks included the Bank in Winterthur, the Bank in Zofingen, the Berner Handelsbank, the Hypothekarbank in Winterthur and the Solothurnische Volksbank (Jöhr 1915: 72–73).

Table 16.1 (*cont.*)

			Banknotes[a]						
Banks	*(A)*	*(B)*	*1840*	*1850*	*1860*	*1870*	*1880*	*1890*	*1900*
II Cantonal banks									
15 Basellandschaftliche Kantonalbank	1864	1867–1910	—	—	—	28	713	1,499	1,989
16 St. Gallische Kantonalbank	1868	1868–1910	—	—	—	1,418	5,948	9.982	13,981
17 Zürcher Kantonalbank	1870	1870–1910	—	—	—	1,897	14,042	23,653	29,328
18 Thurgauische Kantonalbank	1871	1871–1910	—	—	—	—	1,289	1,483	4,974
19 Graubündner Kantonalbank	1870	1873–1910	—	—	—	—	1,988	2,976	3,923
20 Caise d'amortissements de la dette publique Fribourg[d]	1868–93	1874–93	—	—	—	—	746	1,468	—
21 Luzerner Kantonalbank	1850	1877–1910	—	—	—	—	984	1,985	5,694
22 Appenzell A.-Rh. Kantonalbank	1877	1877–1910	—	—	—	—	1,978	2,976	2,979
23 Ersparniskasse des Kantons Uri	1837	1878–1910	—	—	—	—	261	498	1,450
24 Nidwaldner Kantonalbank	1879	1879–1910	—	—	—	—	175	497	995
25 Banque Cantonale Neuchâteloise	1883	1883–1910	—	—	—	—	—	2,962	7,981
26 Schaffhauser Kantonalbank	1883	1883–1910	—	—	—	—	—	1,495	2,462
27 Glarner Kantonalbank	1884	1884–1910	—	—	—	—	—	1,489	2,481
28 Obwaldner Kantonalbank	1887	1887–1910	—	—	—	—	—	493	983
29 Kantonalbank Schwyz	1890	1890–1910	—	—	—	—	—	500	2,974
30 Zuger Kantonalbank	1892	1893–1910	—	—	—	—	—	—	2,967
31 Banque de l'État de Fribourg	1893	1893–1910	—	—	—	—	—	—	4,948
32 Basler Kantonalbank	1899	1900–10	—	—	—	—	—	—	—
33 Appenzell I.-Rh. Kantonalbank	1900	1900–10	—	—	—	—	—	—	—

Table 16.1 (*cont.*)

			Banknotes[a]						
Banks	*(A)*	*(B)*	*1840*	*1850*	*1860*	*1870*	*1880*	*1890*	*1900*
III Local banks									
34 Depositokasse der Stadt Bern[e]	1826	1826–69	170	87	9	—	—	—	—
35 Banque Cantonale Fribourgeoise	1850–1910	1851–1910	—	—	330	378	1,677	996	1,246
36 Thurgauische Hypothekenbank	1852–1914	1852–1908	—	—	470	322	735	963	983
37 Bank in Glarus	1852–1912	1852–82	—	—	492	657	1,275	—	—
38 Bank in Luzern	1857–1912	1857–1907	—	—	125	216	1,969	3.987	4,977
39 Banque Populaire de la Gruyère	1853	1857–92	—	—	—	65	168	173	—
40 Banca Cantonale Ticinese	1861–1914	1861–1908	—	—	—	168	2,119	1,952	1,894
41 Bank für Graubünden	1862	1863–82	—	—	—	108	693	—	—
42 Bank in Schaffhausen	1862	1863–1908	—	—	—	136	667	1,989	3,424
43 Toggenburger Bank	1863–1912	1864–1907	—	—	—	350	987	990	978
44 Banque Populaire de la Broye	1864	1865–82	—	—	—	18	18	—	—
45 Caisse Hypothécaire du Canton de Fribourg	1854	1865–82	—	—	—	115	22	—	—
46 Crédit Agricole et Industriel de la Broye	1866	1867–1910	—	—	—	70	216	799	994
47 Leihkasse Glarus[f]	1863–84	1870–84	—	—	—	92	292	—	—
48 Banca della Svizzera Italiana	1873	1874–1907	—	—	—	—	1,395	1,996	1,991
49 Crédit Gruyèrien	1873	1874–92	—	—	—	—	163	170	—
50 Credito Ticinese	1890–1914	1891–1907	—	—	—	—	—	—	2,231
51 Banca Populare di Lugano	1888	1898–1910	—	—	—	—	—	—	1,992

(A) Years of operation. The final year is shown only if the bank closed before World War I. (B) Years in which banknotes were issued.
[a] 1,000 francs. End of year. [b] Succeeded by the Banque Commerciale Neuchâteloise and the (new) Banque Cantonale Neuchâteloise. [c] Before 1886: Solothurnische Bank. [d] Succeeded by the Banque de L'État de Fribourg. [e] The circulation of banknotes was Fr. 88,000 in 1830. [f] Succeeded by the Glarner Kantonalbank.

Source: Jöhr (1915, vol. II, tables 1 and 2, diagram 1).

The large number of Swiss note-issuing banks shows that the issue of banknotes was not a natural monopoly in the nineteenth century.[6] All banks experienced rising costs that limited their circulations of banknotes. The largest banks operated in the industrial and commercial centres and in the agricultural regions in the western part of Switzerland, where the demand for banknotes was high. But none of these banks dominated the Swiss monetary system. The banknote circulation of the large commercial banks stagnated from 1850 to 1870, and most of the increase in the total circulation in this period was accounted for by new local banks (Table 16.1). In 1880 the Banque du Commerce de Genève was the largest issuer of banknotes, supplying 15 per cent of Swiss banknotes. The Zürcher Kantonalbank followed with 13 per cent, and the Bank in Basel and the Kantonalbank von Bern tied at 7 per cent.

Table 16.2 The duration of the circulation of the banknotes of the bank in Basel, 1851–1905 (days)

	Face values (francs)			
Year	*50*	*100*	*500*	*1,000*
1851		154	162	
1855		36[a]		
1860		22		
1865		10.5		
1870		31	10	
1875		70	37	18
1880	126	99	34	23
1885	203	128	41	24
1890	215	183	52	34
1895	304	210	65	38
1900	272	173	71	60
1905	355	300	121	153

[a] Fr. 100 and Fr. 500.

Source: Mangold (1909).

The banks financed their assets by issuing banknotes and bonds and accepting demand and savings deposits. Cost minimisation required that each source of funds was used until the cost of raising 1 franc was the

6 King (1983) drew the same conclusion considering the private issue of banknotes in New York in the nineteenth century.

same. The banks paid interest on bonds and savings deposits and provided clearing services on chequing accounts. The issue of banknotes was a costly source of funds because each bank faced a real demand for banknotes that depended on their usefulness in commercial transactions. Even the commercial banks in the industrial centres struggled to keep banknotes in circulation for an extended time period.[7] In 1855 the notes of the Bank in Basel on average returned to the bank after 36 days, and in 1865 they stayed in circulation for 10.5 days (Table 16.2). In 1875, reflecting an increase in the demand for banknotes, the 100 franc notes circulated for 70 days, the 500 franc notes for 37 days and the 1,000 franc notes for 18 days. Large banknotes were less popular than small ones because people preferred to use cheques and bills of exchange in large commercial transactions.

The banks incurred costs for printing banknotes, for teller services and for keeping specie reserves.[8] But the most significant costs arose from the clearing of notes, which was a major concern to banks because banknotes are only suitable as media of exchange if they circulate at par over a wide area. Discounts that vary with market conditions reduce the demand for banknotes by imposing information costs on the users of notes.[9] Therefore, the banks entered into a large number of clearing agreements in which they agreed to accept each other's notes either at par or at a predetermined discount. These clearing agreements were costly because the banks had to cover the transport of gold and silver when regional trade flows did not match. Therefore, the banks continuously renegotiated these agreements. In fact, the clearing agreements provided a sensitive tool for the management of the banknote circulation (and specie reserves) of a bank because they directly affected the usefulness of banknotes as media of exchange.

As banknotes were a costly source of funds, their share in the balance sheets of banks remained low, fluctuating between 7.3 per cent in the 1860s and 16.9 per cent in the 1840s (Table 16.3). Moreover, the share of notes was much lower for the cantonal banks and local banks than for commercial banks. This is not surprising in the case of local banks, which operated in

7 Baltensperger (2016: 57–60, 88, 91–97), Baltensperger and Kugler (2017) and Bordo (2017) confirmed that Swiss banks did not overissue banknotes, but Neldner (1998, 2003) and Kueng (2007) dissented.

8 Baltensperger (2016: 57–60, 88, 91–97), Baltensperger and Kugler (2017: 135–48) and Bordo (2017) concluded that the high costs of keeping banknotes in circulation created a fragmented and inefficient payments system.

9 For an analysis of the demand for money that stresses information costs, see Brunner and Meltzer (1971) and Brunner (1989).

the less industrialised regions of Switzerland, where the demand for banknotes was low. But in most cantons the cantonal bank was privileged in one way or another. The notes of the cantonal banks were usually guaranteed by the cantonal government, and they could be used at par for tax payments and other transactions with cantonal authorities. In addition, in the 1870s in some cantons private banks were subject to regulations and taxes that did not apply to cantonal banks. But despite these advantages, the cantonal banks were not able to drive out the private banks as issuers of banknotes. This suggests that in a competitive monetary system government banks do not have a comparative advantage in issuing banknotes.

Table 16.3 The share of banknotes in the balance sheets of Swiss note-issuing banks, 1826–1906 (%)

Year	*Commercial banks*[a]	*Cantonal banks*	*Local banks*	*All banks*
1831–40	19.2[b]	4.4[c]	10.8	11.1
1841–50	25.2	3.5	5.6	16.9
1851–60	20.9	9.4	4.4	12.9
1861–70	13.8	6.8	3.5	7.3
1871–80	31.7	10.2	8.3	13.6
1881–90	41.9	11.8	9.6	16.1
1891–1900	47.4	12.1	8.5	15.7
1901–06	50.9	9.6	7.2	12.3

[a] The Banque Générale Suisse and the Eidgenössische Bank are included among the local banks. [b] 1838–40. [c] 1835–40.

Source: Jöhr (1915, vol. II, table 4).

The federal regime: 1881–1906

In the 1860s and 1870s, the political tide turned against the liberals. Popular dissatisfaction with the laissez-faire policy of the liberals, which had led to rapid industrialisation amid social tensions, gave rise to the so-called democratic movement. After constitutional reforms, several cantons became active in economic and social regulation in northeastern Switzerland. The democratic movement did not spread to the western cantons, where the radical wing of the liberals had anticipated parts of the democratic platform, in particular the demand for cantonal banks. The radicals had established the Kantonalbank von Bern, the Banque Cantonal Vaudoise and the Banque de Genève immediately after the revolutions in the 1830s and 1840s (Table 16.1).

The democratic cantons set up cantonal banks and regulated the private issue of banknotes. By the end of the nineteenth century, there were 21 cantonal banks. Several cantons imposed a tax of 1 per cent per annum on the circulation of private notes. This was a substantial levy, considering that the banks could raise funds through interest-free current accounts. Despite these regulations, in the 1870s the degree of competition remained high in the Swiss monetary system, and it was even increased by the new cantonal banks. Zürich was the only canton where the private issue of banknotes was seriously affected. The cantonal banking law of 1869 imposed substantial costs on the Bank in Zürich, accounting for the rise in the note circulation of the Zürcher Kantonalbank relative to that of the Bank in Zürich. In 1880 the note circulation of the cantonal bank amounted to 14 million francs, whereas that of the Bank in Zürich languished at 5 million (Table 16.1). In 1876 the voters passed a referendum that would have made the cantonal bank the sole issuer of banknotes in the Canton of Zürich. The Bank in Zürich, however, successfully appealed to the federal government.

In 1874 the federal constitution was revised along democratic lines after a more radical draft had been narrowly defeated in a referendum two years earlier. The revised constitution authorised the federal government to regulate the issue of banknotes, providing the legal basis for the Federal Banking Law of 1881. Although many banks continued to issue banknotes until the Swiss National Bank took over between 1907 and 1910, the free issue of banknotes had ended in Switzerland by 1881. The most important provisions of the Federal Banking Law were as follows. (i) The issue of banknotes was restricted to incorporated banks and cantonal banks, excluding partnerships and private individuals. This was no longer of much importance because the private bankers, who had issued banknotes under the aristocrats, had voluntarily abandoned the banknote business. (ii) The banks were required to hold at least 40 per cent of their banknote circulation as specie reserves. In addition, banks whose notes were not guaranteed by a canton had to hold the remaining 60 per cent either as approved domestic and foreign government securities or, under restrictive conditions, as commercial bills. This regulation strongly favoured the cantonal banks. (iii) As a safeguard against insolvency, the capital had to amount to at least one-third of the banknote circulation. (iv) Each bank was required to accept the banknotes of all other banks at par so long as the issuers redeemed their notes on demand. (v) The cantonal tax on banknotes was capped at 0.6 per cent. In addition, there were federal and cantonal fees of 0.2 per cent. (vi) The federal government provided the banks with standardised banknotes with face values from 50 to 1,000 francs; earlier smaller denominations had been common. (vii) The banks were required to submit weekly and monthly statements and they were regularly examined by the Eidgenössische Noteninspektorat.[10]

Although the banking law of 1881 favoured the cantonal banks, their share in the circulation of banknotes remained virtually unchanged. The cantonal banks accounted for 43 per cent of the Swiss banknote circulation in 1880 and 47 per cent in 1890. They maintained their share in the circulation of banknotes mainly because the Eidgenössische Bank and five local banks ceased to issue notes (Table 16.1). Finally, in an 1891 referendum, voters authorised the federal government to establish a central bank. As it became clear that the issue of banknotes would soon be nationalised, the Bank in Zürich and the Banque de Genève abandoned the banknote business. Belatedly and not very successfully, the Bank in Zürich tried to join the commercial banks that had never issued banknotes, but in 1905 it merged with the Schweizerische Kreditanstalt (Credit Suisse). Those further exits from the banknote business raised the cantonal banks' share in the total note circulation to 60 per cent by 1900.

The purchasing power of banknotes

Competition forced the Swiss banks to issue their banknotes as unconditional promises to redeem them on demand in specie currencies. Before the enactment of the Federal Banking Law of 1881, banks could easily have provided for suspensions of payments in their articles of association. This would have lowered the costs of issuing banknotes by reducing the need for specie reserves. But the banks did not provide for suspensions of payments because each faced a demand for banknotes that was sensitive to changes in their purchasing power. In a competitive monetary system individual banks cannot keep depreciating banknotes in circulation because people can easily substitute notes. Therefore, the marginal revenue of inflating is negative and each issuer is a 'price level taker'.

10 Gerlach and Kugler (2018) argued that the Federal Banking Law of 1881 had only a minor impact on Swiss monetary dynamics. Herger (2021, 2022, 2023) developed a unifying framework for analysing the largely unrestricted Swiss free banking before the enactment of the Federal Banking Law and the strictly regulated system thereafter. His analysis suggests that the regulated regime led to a tendency towards overissuance of banknotes and an inelastic supply of notes.

The banks denominated their banknotes in the specie units in use in commercial transactions to reduce the information costs of users. Before the currency reform of 1850, all but one bank used foreign currency units that had driven out the debased cantonal and local currencies in commercial transactions.[11] The Depositokasse der Stadt Bern, which denominated its banknotes in the so-called old Swiss franc, was not able to keep a significant amount of notes in circulation. The old franc was a silver unit of account (6.665 grams) that had been adopted by 19 cantons for transactions with the embryonic federal administration in 1819. The users of those notes incurred information costs because, as there were no coins denominated in old francs, they faced the risk to be redeemed in the momentarily least valuable silver currency. Similarly, the circulation of banknotes of the Bank in Zürich fell when it rendered the purchasing power of its notes uncertain by making them redeemable both in French gold francs and in silver brabanterthaler from 1841 to 1847.

In 1850 the federal government reformed the Swiss monetary system, replacing cantonal and local currencies with the Swiss franc. Switzerland was on a silver standard from 1850 to 1860 and on a bimetallic standard afterwards. The official silver and gold parities of the Swiss franc equalled those of the French franc of 4.5 grams of silver and 0.2903226 grams of gold. Awkwardly, the currency reform coincided with a rise in the price of silver relative to gold, and French gold coins drove out the new Swiss silver coins. This was in violation of Swiss legal tender laws and several creditors took legal action (Banque Nationale Suisse 1925: 4). Nevertheless, French gold coins circulated at par, implying that domestic silver coins were either hoarded, melted down or traded at a premium. The breakdown of Swiss legal tender laws is a unique occurrence. People accepted the overvalued French gold coins at par because domestic silver coins were inconvenient in commercial transactions. The face value of the largest silver coin – the so-called écu – was only 5 francs, whereas the top gold coin was 100 francs. In 1860 the Swiss government accepted the de facto use of foreign gold coins by making the gold coins of France and Sardinia legal tender beside the Swiss silver coins. This gave rise to bimetallism in Switzerland.[12]

The Swiss banks were free to choose the currency denomination of their banknotes until the enactment of the Federal Banking Law in 1881 or, in some

11 Weber (1988) considered the issue of banknotes in Switzerland before the currency reform in 1850.

12 Weber (2012) investigated the change in the operation of bimetallism during the Industrial Revolution, and Weber (1996) provided an econometric analysis of the bimetallic unit of account in Basel during the Middle Ages.

cantons, of the democratic banking regulations. The banks, however, voluntarily adopted the Swiss franc when it became used in commercial transactions in the early 1850s, and they switched from the domestic silver franc to the French gold franc when the latter drove out the former. In 1852 the Bank in Zürich and the Bank in St. Gallen issued notes both in new Swiss francs and in the foreign currency units that they had used before the currency reform. But the demand for old banknotes turned out to be small and both banks abandoned them after several months. The public preferred new banknotes because exchange rate fluctuations between the franc and the previously used foreign currencies imposed information costs on the users of old notes. This sheds light on the nature of money. The inability of the banks to keep old notes in circulation after the introduction of the franc shows that banknotes were primarily demanded for transactions purposes. There was no asset demand for old notes because people who wished to hold foreign exchange invested in interest-yielding bills of exchange that arose from international trade.

In 1865 Belgium, France, Italy and Switzerland founded the Latin Monetary Union and three years later they were joined by Greece. The members of the union shared a common monetary base that consisted of the full-bodied coins of the participating countries. The Bank of France provided for the free coinage of gold and silver in Switzerland. The Swiss government did not mint gold coins until the 1880s, and it supplied only a limited amount of écus because minting silver coins caused a loss when the price of silver rose relative to gold in the 1850s. This suggests that the supply of full-bodied coins involves economies of scale that give rise to a natural monopoly. Therefore, small countries cannot compete with large ones in the production of full-bodied coins. Yet the Latin Monetary Union suffered from the shortcomings of bimetallism. In the 1870s, the fall in the price of silver relative to gold led to the massive coinage of écus, which drove out the gold coins. Between 1874 and 1878, the free coinage of silver was phased out, giving rise to a substantial overvaluation of the écu. Afterwards, the union was de facto on an écu standard. The Swiss banks continued to redeem their banknotes in the momentarily circulating coins until the Federal Banking Law required them to use legal tender in 1881.

The circulation of banknotes

The Swiss circulation of banknotes rose from 7.6 million francs in 1850 to 234.9 million in 1906 (Table 16.4 and Figure 16.1). This increase represents a rise in the real demand for banknotes as Switzerland was on a bimetallic standard with no significant increase in the price level. Despite large price fluctuations in the short run, the price of agricultural commodities did not change much in the second half of the nineteenth century (Figure 16.2). Reflecting low inflationary expectations, the interest rate on commercial bills fluctuated between 3 and 6.5 per cent (Figure 16.2). The banknote circulation expanded in three stages with moderate monetary growth until the 1860s, rapid monetary expansion in the first half of the 1870s, and again moderate growth afterwards. Excluding the first half of the 1870s, the annual growth rate in the banknote circulation was 4.4 per cent from 1850 to 1870 and 3.7 per cent from 1875 to 1906. These figures provide estimates for the trend in real output if it is assumed that changes in real output induced proportional changes in the demand for banknotes.

Economic growth alone cannot explain the surge in the circulation of banknotes in the first half of the 1870s. From 1870 to 1875, the circulation more than quadrupled, rising from 19.0 million to 77.3 million francs (Table 16.4). As inflation was moderate, the real demand for banknotes accounted for most of this spectacular expansion in the volume of notes. From the 1860s to the 1870s, agricultural commodity prices rose only by about one-fifth (Figure 16.2). Three factors explain the increase in the real demand for banknotes in the first half of the 1870s.

(1) In July 1870, France declared war on Prussia. During the war, the Bank of France suspended the convertibility of banknotes and France resorted to exchange controls. This gave rise to a peculiar situation in the Latin Monetary Union. Swiss banknotes continued to be redeemable in French gold coins, whereas French banknotes were no longer redeemable. Since the public preferred banknotes with stable purchasing power, Swiss (and Belgian) banknotes drove out the depreciating French notes (certainly outside France and to some extent also in France). In particular, the banks in the French-speaking part of Switzerland benefited from the extra demand for Swiss banknotes. The note circulation of the Banque du Commerce de Genève by far exceeded that of the other banks at the end of 1870 (Table 16.1). The experience of the Bank of France shows that even a large government bank cannot keep depreciating paper money in circulation if it must compete with other banks. The Swiss banks would have captured a substantial market share in the French districts along the Swiss border, had there been no exchange controls. This incident also shows that

in a competitive monetary system the majority of banks will maintain the purchasing power of their banknotes even if a large bank breaks ranks by depreciating its notes.

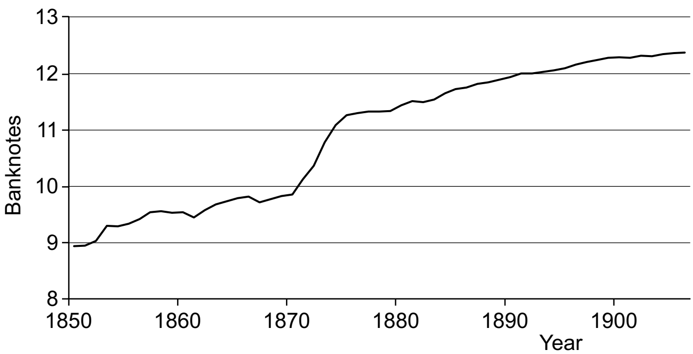
Table 16.4 The Swiss banknote circulation, 1826–1906[a]

1826–1850		*1851–1880*		*1881–1906*	
		1851	7,667	1881	99,401
		1852	8,335	1882	98,235
		1853	10,920	1883	102,228
		1854	10,816	1884	114,801
		1855	11,291	1885	123,431
1826	35	1856	12,262	1886	127,064
1827	71	1857	13,900	1887	134,835
1828	90	1858	14,177	1888	139,637
1829	50	1859	13,752	1889	145,461
1830	58	1860	13,826	1890	152,444
1831	84	1861	12,697	1891	163,487
1832	40	1862	14,939	1892	163,344
1833	23	1863	16,004	1893	167,369
1834	87	1864	16,831	1894	171,285
1835	181	1865	17,818	1895	179,221
1836	458	1866	18,276	1896	190,155
1837	335	1867	16,537	1897	199,415
1838	1,171	1868	17,466	1898	207,665
1839	1,991	1869	18,465	1899	214,685
1840	2,050	1870	18,982	1900	216,673
1841	2,472	1871	24,822	1901	214,456
1842	2,720	1872	31,613	1902	222,963
1843	2,711	1873	47,804	1903	221,811
1844	2,564	1874	65,376	1904	228,431
1845	2,929	1875	77,290	1905	233,466
1846	3,737	1876	80,594	1906	234,897
1847	3,937	1877	83,135		
1848	5,575	1878	82,580		
1849	6,556	1879	83,664		
1850	7,582	1880	92,851		

[a] 1,000 francs. Annual averages of monthly figures.

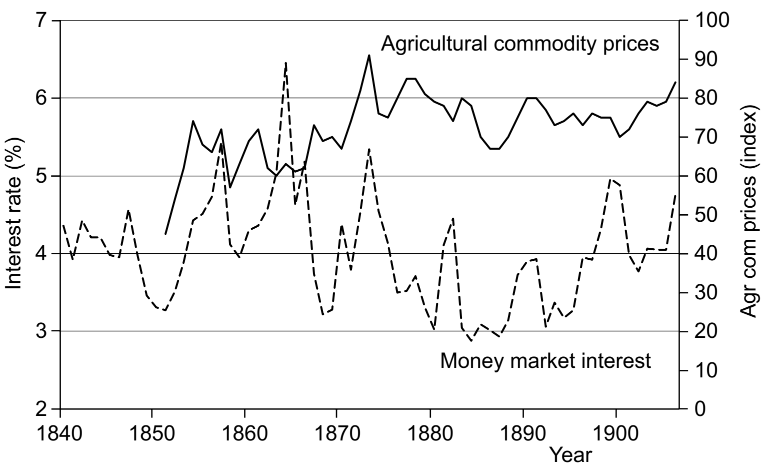
Source: Jöhr (1915: 496).

Figure 16.1 Swiss banknote circulation, 1850–1906 (natural logarithm)



Source: Table 16.4.

Figure 16.2 Swiss money market interest and agricultural commodity prices, 1840–1906



Source: Agricultural commodity prices (Brugger 1978: 251); money market interest rate (Jöhr 1915: 508).

(2) The public substituted banknotes for silver coins when the bimetallic standard changed from gold to silver. In the 1850s and 1860s, gold coins served as media of exchange. The demand for banknotes was small because they did not provide a decisive advantage over gold coins in commercial transactions. Gold coins involved low information costs because they circulated at par, they did not carry default risk, and they were almost as convenient to handle as banknotes. The high value of gold made it possible to

mint lightweight coins whose face values overlapped with those of the 10, 20 and 100 franc notes. The short duration of the circulation of banknotes of the Bank in Basel (Table 16.2) and the small share of banknotes in the balance sheets of all banks (Table 16.3) confirm that the demand for banknotes was low when gold coins were used as media of exchange. However, in 1872 the price of silver fell and the écu drove out the gold coins in the Latin Monetary Union. The écu was a heavy silver coin with a face value of only 5 francs, rendering it an inconvenient means of payment in commercial transactions. Therefore, as suggested by Ritzmann (1973: 91), people substituted banknotes for écus. Currency substitution accounted for most of the increase in the demand for banknotes in the early 1870s. Also, the increase in the demand for banknotes was long-lasting as the silver price continued to fall until the beginning of the twentieth century. The gold coins that were minted by the federal government in the 1880s and 1890s were either hoarded or melted down (by the watch industry?). One consequence of the substitution of banknotes for écus was that it provided the banks with a large amount of specie. Despite an import boom that must have given rise to a current account deficit, the specie reserves of the banks increased from 14.6 million francs in 1869 to 40.9 million in 1875 (Jöhr 1915: 452–55). This monetary expansion gave rise to a credit boom that contributed to the economic expansion in the first half of the 1870s.

(3) The early 1870s are known as the *Gründerjahre* (foundation years) in the German-speaking countries. The economic boom ended with the financial crash in Vienna in 1873, while the Swiss economy prospered for another two years. There exists no generally accepted estimate of the rise in Swiss real output. Still, it can be inferred that from the beginning of 1870 to the end of 1874 the expansion in output raised the real demand for banknotes by 45.8 per cent, if it is assumed that the demand for banknotes was as sensitive to changes in output as the demand for deposits (Jöhr 1915: 452–55). Although this is a substantial figure, it is only a small portion of the total increase in the banknote circulation in the first half of the 1870s.

Bank difficulties

The competitive issue of banknotes provided a secure monetary system with only one bank failure. The Banque Cantonale du Valais failed due to the persistent cantonal budget deficits, thus foreshadowing the inflationary bias of modern central banks in countries with weak fiscal arrangements.

The bank had granted large loans to the cantonal government, which it had financed through borrowings from banks outside the canton, and it suffered losses on its lending to the public. The bank collapsed when the cantonal legislative council refused an application for an issue of bonds for the refinancing of the bank's borrowings in 1870. Given the pressure of the cantonal government, this bank would almost certainly have overissued banknotes had it been able to do so. But like the other banks, it was unable to keep large amounts of banknotes in circulation at a profit (Table 16.1). It could not monetise the cantonal budget deficits because the demand for banknotes was small in the alpine canton of Valais, and there was no demand for depreciating banknotes in the competitive Swiss monetary system. The failure of the cantonal bank led to a political scandal and the resignation of several executive councillors in the canton of Valais. The cantonal government eventually redeemed all banknotes at par.

Two banks that aspired to a leading role in the Swiss financial system but both ran into difficulties. In 1853 the liberal-radical politician and financier James Fazy, who had already founded the Banque de Genève, established the Banque Générale Suisse. The bank, which was structured after the French *crédit mobilier,* operated as a finance company, investing in railways, industrial enterprises and real estate. The bank's capital was huge, exceeding the aggregate capital of all other Swiss banks that issued notes. The scope of the bank was international with a board of directors that included personalities from Geneva, Paris and London. Yet the bank suffered heavy losses on its investments, and it experienced a run after the branch office in Paris deferred payments over a weekend in April 1859. Within one day, it had to redeem two-thirds of its banknote circulation of close to 1 million francs. Afterwards, there were prolonged takeover fights until the bank went into liquidation in 1870.

The founders of the Eidgenössische Bank intended to establish a private central bank in Switzerland. Accordingly, they chose a name for the bank that may be translated as 'Federal Bank of Switzerland'; the head office was located in the capital of Switzerland (Bern); a former member of the federal executive council, Jakob Stämpfli, headed the bank; and its banknotes displayed the Swiss emblem with German and French inscriptions. The bank, which was strongly opposed by the commercial banks, operated an elaborate network of branches in Switzerland and it entered into many clearing agreements with domestic and foreign banks. But it never achieved its ambitious goals, accounting for only 7 per cent of the Swiss banknote circulation after five years of operation, in 1869. Then, it was hit by a massive fraud at the branch office in Zürich and had to be restructured. The difficulties of the Banque Générale Suisse and the Eidgenössische Bank confirm that the optimal size of banks was still small in Switzerland in the nineteenth century.

Summary

The global deregulation of financial markets has generated a renewed interest in monetary systems in which media of exchange are supplied competitively. Many models of competitive monetary systems have been developed, but empirical research is difficult because in the twentieth century central banks have almost universally controlled the supply of currencies. Therefore, turning to the time before the formation of central banks provides an opportunity for the study of deregulated monetary systems.

The main finding of this chapter is that in the nineteenth century competition provided a stable monetary system in Switzerland in which the purchasing power of banknotes equalled that of specie currencies and only one bank failed. The Swiss banks did not overissue banknotes because there was no demand for depreciating notes in the competitive Swiss monetary system. Each bank faced a real demand for banknotes that depended on their usefulness in commercial transactions. The marginal revenue of inflating was negative because depreciating notes impose information costs on their users and people could easily substitute notes. The Swiss monetary system was also stable in the sense that rising costs of issuing banknotes prevented a monopoly by a single issuer. In contrast, modern central banks can inflate at a profit because (i) they have the exclusive right to issue currency and (ii) international currency substitution is limited by legal tender laws and, if necessary, by exchange controls.

17 US BANKING IN THE 'FREE BANKING' PERIOD

Kevin Dowd

> The two decades preceding the American Civil War … witnessed something approaching a natural experiment. During those years the Federal government withdrew from the regulation of banking, a policy that was the final outcome of Andrew Jackson's war with the Second Bank of the United States. A wide range of experiments concerning entry into commercial banking were tried, from 'free' banking to 'socialized' banking. Moreover, other kinds of legislation affecting banking varied from state to state as well. While the regions of the United States differed in terms of economic structure, a common language, a common legal tradition, and, to some extent, a common culture permeated all regions. Thus the period provides excellent conditions for observing the effects of financial legislation on … financial intermediation.
>
> Rockoff (1975b: 160)

Introduction

Banking has always occupied a unique place in American history. When the republic was founded, entry to other industries was normally free, but banking was made an exception. Those who wished to set up a bank had to obtain explicit authorisation in the form of a charter, and the constitution assigned the power to grant charters to the state legislatures to use as they saw fit. A typical charter would give the shareholders some limit on their liability and place restrictions on the ratio of notes to capital. Following on from English practice, the law interpreted a 'bank' as an institution that issued notes, and this narrow interpretation implied that while the issue of notes was quite restricted, the issue of deposits for a long time was not. (The restrictions on notes were important, none the less, in that notes were still a considerable part of the circulating medium.[1]) The controlled

1 As an illustration, the ratio of note to deposits was 27 per cent in New York city in 1849 (Klebaner 1974: 26).

entry to the industry implied that charters normally involved a degree of monopoly privilege. They were therefore valuable, and state legislatures were often inclined to sell them for financial favours (e.g. cheap loans) rather than give them away. In addition, charters often restricted the bank to operate only in one county and one office – a restriction that would have propped up the value of charters, and, therefore, what they could be sold for, by restricting competition at the local level. Not surprisingly, perhaps, the state chartering process was often highly politicised and frequently controversial. The chartering of federal banks was even more so, and although the federal government did grant banking charters, the constitutionality of its power to do so was always controversial.[2] Whether the charter of the (second) Bank of the United States (BUS) should have its charter extended on its expiry in 1836 became a key issue in national politics, and the 'war' against the Bank was the dominant theme in Andrew Jackson's presidency. Jackson eventually succeeded and vetoed the bill to re-charter the Bank. The Bank's charter then expired and the federal government effectively withdrew from the banking industry to leave the field almost entirely to the individual states.[3]

'Free banking' in New York

New York had a particularly controversial charter system. The legislature had long been accustomed to grant charters 'as patronage to political favorites' (Holdsworth 1971: 31), and the corruption surrounding the chartering process was widely regarded as scandalous. As early as 1825, a report to the State Senate recommended opening entry to the banking industry by repealing the laws against non-chartered banks. If noteholder safety was a major concern, the report suggested that the law could require that non-chartered banks deposit approved bonds with the state authorities, and these bonds could then be used to repay noteholders of any banks that failed. These two features – free entry and a bond-deposit condition – were to become the distinguishing characteristics of the 'free

2 The argument made by opponents of federal chartering was that the federal government did not have any powers not expressly granted to it, and the chartering power was among these. For more on this issue, see Dowd (1990b) and Timberlake (1990).

3 The expiration of the charter of the BUS in 1836 saw the federal role cut down to imposing restrictions on banks that had federal deposits, and even these restrictions were removed by the adoption of the Independent Treasury System in January 1847 (Rolnick and Weber 1983: 1082; see also Scheiber 1963: 212 and Timberlake 1978).

banking' laws,[4] and numerous petitions were subsequently presented to the legislature for the passage of a 'free banking' act. The charter system meanwhile had become 'so shameless and corrupt that it could be endured no longer',[5] and a 'free banking' act finally became law in April 1838.[6]

The New York law allowed free entry to the industry subject to a number of conditions.[7] Banks had to have at least $100,000 in capital, they were to observe a 12.5 per cent specie reserve requirement against notes, and their notes had to be redeemable on demand. Their notes were also to be secured by deposits of eligible assets with the state comptroller, and these assets included US bonds and the bonds of New York and other 'approved' states, and certain mortgages. Shareholders of 'free banks' were also allowed limited liability, and noteholders had first lien on the assets that were deposited to secure the note issue. The act was revised in 1840 when the reserve requirement was eliminated and US bonds and the bonds of other states were removed from the list of eligible bonds – a move, incidentally, that Knox (1969: 418) says was expressly intended to promote the demand for New York bonds. A revised state constitution in 1846 also altered the 'free banking' law and made shareholders personally liable for notes up to the amount of their capital subscription ('double liability').

A large number of 'free banks' were set up immediately after the passage of the act – Hammond (1957: 596) suggests that 50 were set up very soon after, and 120 within two years. The early years of New York 'free banking' coincided with the financial difficulties of the late 1830s and early 1840s, however, and several banks failed when a group of southern and western states defaulted on their debts and inflicted large losses on them (see Root 1895: 20).[8] (As an illustration, Rolnick and Weber (1985: 8) note that the 17 banks that closed in the period from January 1841 to April 1842 held no

4 Note that the adjective 'free' used in this context 'referred solely to freedom of entry' – the term 'automatic' would be more accurate, however, since entry was 'free' only subject to certain conditions: 'The free banking laws ended the requirement that banks obtain their charters through special legislative acts' (Rockoff 1975b: 161).

5 These were the words of New York comptroller Millard Fillmore looking back later in 1848 (quoted in Klebaner 1974: 9).

6 Knox (1969: 413–15) and E. N. White (1990b) have detailed discussions of the origins of the New York 'free banking' law. See also Holdsworth (1971: 31).

7 Details of the New York legislation are given in Rockoff (1975a: table 12), King (1983: 142–48), Knox (1969: 414–15) and E. N. White (1990b: 9 and 22).

8 Arkansas, Florida, Indiana and Mississippi defaulted in 1841, and Illinois, Lousiana, Maryland, Michigan and Pennsylvania in 1842 (Rolnick and Weber 1985: 6; see also Schweikart 1987).

less than 95 per cent of their asset portfolio in the form of bonds issued by defaulting states.) After this initial growth spurt, the New York banking system settled down to two decades of fairly steady expansion. From 1841 to 1861 (King 1983: 143),

> the banking sector's volume of outstanding circulating notes doubled … Even more dramatically, deposits at New York banks increased by more than six times as New York City became the financial center of the US economy … There was also substantial growth in the total number of banking institutions, which more than doubled between 1838 and 1863, rising from 133 to 301.

The impression of rapid growth is also borne out by Rockoff's observation that per capita bank money in New York grew at an annual rate of 4.41 per cent in the period from 1845 to 1860 (Rockoff 1975b: 162–63). (Rockoff notes, too, that this growth rate compares to national average of 2.56 per cent over the same period.) The losses that noteholders suffered in the first few 'free banking' years were also substantially reduced in the later period. To quote King (1983: 148) again:

> In the twenty year period from October 1842 through September 1862 … [the] average annual percentage loss was about 0.04 percent, described by a contemporary observer as being far less than the loss arising from wear, tear, and shaving of specie coins. The largest percentage loss – about one third of one percent – occurs during a period of general financial distress and sharp economic decline.

The success of 'free banking' in New York was widely acknowledged. Rockoff (1975a: 11) describes New York 'free banking' as 'brilliantly successful', and even Knox (who is often quite hostile to 'free banking') acknowledged that 'New York in 1863 had an excellent banking system; the banks under it were sound and solvent and issued a satisfactory and safe currency' (1969: 392).

'Free banking' laws elsewhere

The New York 'free banking' law was widely imitated, and eighteen states eventually passed versions of it by 1860. The list of eligible assets that could be used to secure the note issue almost always included the bonds of the state that passed the law, and it usually also included US bonds. The bonds of other states were often included as well, and other assets such as mortgages were sometimes allowed. These laws also required that banks redeem their notes on demand at face value, on pain of dissolution – chartered banks were normally under the same obligation too – and they had a minimum (and sometimes a maximum[9]) capital requirement. As with earlier charters, 'free banking' laws sometimes included restrictions against investments in real property (Rockoff 1975b: 162), restrictions on branch banking, and (usually) restrictions on the maximum ratio of the note issue to bank capital. In addition, banks were often subject to usury laws[10] and a variety of restrictions on the minimum denominations of their notes.[11] And while early laws normally limited shareholders' liability to the amount of their initial investment, there was a tendency to extend their liability as time went on, and most states had 'double' liability for the shareholders of 'free' (and chartered) banks by 1860 (Klebaner 1974:11). As we saw, already in New York there was also a gradual tendency to strengthen noteholder protection, and most states eventually gave noteholders preferred status as creditors and first lien on the assets deposited with the state authorities. Early restrictions on the note–capital ratio were also supplemented as time went by with explicit reserve requirements, and twelve states had reserve requirements of one sort or another by 1860.[12]

Apart from New York, 'free banking' laws were passed in Michigan (1837), Georgia (1838), Alabama (1849), New Jersey (1850), Illinois, Massachussetts,

9 Examples are Vermont and Pennsylvania, whose 'free banking' laws limited the capital of a 'free bank' to no more than $200,000 and $1 million respectively (Knox 1969: 357, 459).

10 For more on usury laws, see Rockoff (1975b: 169–72). These laws varied considerably, both in the interest ceilings they imposed and in the penalties imposed for violating those limits. His discussion suggests that they probably had some impact at some times, but were often ineffective.

11 Eugene White (1990b) has a good account of the history and effects of denominational restrictions. Notes under $1 were banned in Ohio in 1819, in Florida in 1828 and in Georgia in 1830, and the federal Treasury and a number of states attempted to discourage the use of notes less than $5 in the 1830s. There were also some attempts to impose even higher minimum denominations (e.g. Missouri banned notes under $20 in 1836). Denominational restrictions were sometimes highly controversial, and opposition to them led to the repeal of the New York ban on notes under $5 in 1837. They were often ineffective, and led to a flood of 'foreign' (i.e. out-of-state notes) (see also Klebaner 1974: 19). Where they were effective, on the other hand, they tended to put banknotes out of reach of the ordinary man.

12 Reserve requirements were generally applied to chartered and not just to 'free' banks. Virginia was the first state to introduce one (1837), and other states soon followed suit. (New York's was repealed in response to opposition from the bankers.) While early reserve requirements stipulated reserves against the note issue, Louisiana was the first state to introduce a reserve requirement against deposits as well as notes (in 1842; see Klebaner 1974: 43).

Ohio and Vermont (1850), Connecticut, Indiana, Tennessee and Wisconsin (1852), Florida and Louisiana (1853), Michigan again (1857), Iowa and Minnesota (1858) and Pennsylvania (1860). The spread of 'free banking' appears to be due to a variety of factors. One is New York's clear success with it. One suspects, too, that it was not just the success of New York in achieving a stable and growing banking system that accounts for its imitation, but also the realisation by state legislatures that it offered a good way to raise revenue by promoting the demand for state debt. The usefulness of 'free banking' in this regard is illustrated by the fact that the New York 'free banking' system held no less than 57 per cent of New York's state debt in 1860 (Rockoff 1975a: table 4). In a number of southern states the adoption of 'free banking' also appears to have been facilitated by the fact that the earlier controversies over banking that had been so pronounced in the 1830s and 1840s had to some extent burned themselves out by the 1850s. As the protagonists fought themselves to a standstill, they gradually converged to more liberal policies as a matter of pragmatism rather than principle (see, for example, Schweikart 1987: 47). There was also considerable dissatisfaction in many states with state banking systems which either prohibited banking entirely or else implied a large degree of political control through a state bank or a politicised charter system. Dissatisfaction with the results of prohibition thus led to its replacement with 'free banking' in Iowa and Wisconsin, and dissatisfaction with the politicised process by which bank capital was allocated was a major factor behind the adoption of 'free banking' in Ohio and Tennessee. Rockoff observes that the 'sentiment for free banking was especially strong in the West' (1975a: 50) because of these sorts of difficulties, and these restrictions were felt particularly acutely in areas of new settlement where there was scope for rapid economic development (1975b: 163–64). There appears to have been a general perception that 'free banking' would promote economic and financial development, and that more restrictive systems would hold it back, and these beliefs appear to be borne out by a comparison of different states' experiences, especially in the 1850s.

We turn now to take a closer look at the various experiences of 'free banking'.

'Free banking' in Michigan (1837)

Michigan was the first state actually to pass a 'free banking' law. As in New York, there was considerable dissatisfaction with the existing 'monopoly' in banking, and a 'free banking' law was passed in March 1837 modelled on a bill that was still before the New York legislature. Hammond (1948: 6) reports that 40 banks were set up very quickly after the passage of the new law and all were in liquidation within a year, while Knox (1969: 735) reports that 42 banks were in liquidation and only six banks – two chartered banks and four 'free banks' – still remained in operation by the end of 1839. The 'free banking' act itself was suspended in 1838, and it was subsequently repealed in 1839 and declared unconstitutional in 1844. What had happened?

The most important factor behind the failures appears to be a suspension law that resulted from a special legislative session in June 1837 – three months after the 'free banking' law – that authorised all banks in the state to stop specie payments. This law effectively removed the discipline against overissue – if banks' notes are convertible, then a bank is limited in its ability to issue notes by the legal requirement that it redeem them on demand for specie. The suspension law removed that requirement and thereby eliminated any effective check on the note issue. As Rockoff (1975a: 95) put it,

> a unique situation was set up in which a group of men could issue bank notes with practically no risk to themselves. Few free banks had been started up to this time, but now the rush to start began in earnest, and in fact, nearly all the Michigan wildcats lived their brief lives during the period of general suspension.

Far from telling us much about 'free banking' as such – recall that 'free banking' laws required that banks maintain convertibility – the Michigan experience thus appears to tell us more about the dangers of suspension laws.[13] Yet the Michigan experience, ironically, had a profound impact on later generations' perceptions of 'free banking', and 1837 Michigan was remembered when the successes of 'free banking' in New York and other

13 The argument that it was the suspension law rather than the 'free banking' law that was the principal factor behind the failure is also supported by the observation that only two of the chartered banks remained in operation by the end of 1839 (Knox 1969: 735). It is questionable, however, whether all the 'free bank' failures can be blamed on the suspension law alone. Rockoff (1975a: 94) states that many banks 'were simply frauds which operated in violation of the free banking law'. He also suggests (1975a: 18) that 'only a small portion of the notes entered circulation at par', which suggests that the mutual fund model of Rolnick and Weber (1988) might be appropriate, as with Minnesota, or that losses might have been exaggerated.

states were all but forgotten. Many of the colourful stories about wildcat banking that were later regarded as the natural outcome of 'free banking' stem from episodes in late 1830s' Michigan. With convertibility suspended, banks had no need to keep reserves other than to satisfy the bank commissioners, and the famous episodes of barrels of nails covered with coins and of specie being moved around the country to fool the commissioners were perhaps only to be expected.

Illinois

In 1835 the state of Illinois set up a state bank ostensibly modelled after Indiana's,[14] but the bank defaulted (as, indeed, did the state itself) in 1842, and the state constitution was subsequently amended in 1847 to ban state involvement in banking and to submit all banking legislation to referendum. A 'free banking' act modelled on New York's was then approved in 1851 (see, for example, Hammond 1948: 5, 13–14) and 141 'free banks' were subsequently formed (Economopoulos 1988: table 1). The Illinois 'free banking' system 'escaped practically unscathed' from the crises of 1854 and 1857 (Rockoff 1975a: 113), and Economopoulos (1988: 254) reports that it 'worked reasonably well prior to 1861'. He notes, too, that it outperformed three out of Rolnick and Weber's four states during this period (ibid.: 113). However, a potential problem was highlighted in a bank commissioners' report of 1857 which revealed that over two-thirds of Illinois banknotes were secured by bonds from the state of Missouri, and the Illinois banking system was therefore vulnerable to a fall in the price of Missouri state debt (ibid.: 253). Relatively little was done to reduce the banking system's vulnerability to the prices of Missouri bonds, and a large number of bank failures followed when Missouri bond prices plummeted at the start of the Civil War. The prices of Missouri 6s fell from over 80 per cent of par in mid 1860 to under 40 per cent of par a year later (Rolnick and Weber 1984: figure 2). Only two banks had failed before 1861, with losses of only 8 cents on the dollar, but 89 failed in 1861 and noteholders took average losses of 33 cents per dollar (Economopoulos 1988: 254). 'Free banking' in Illinois thus had a successful run until it was undermined by the fiscal instability associated with the outbreak of the Civil War.

14 Banking histories often regard the Illinois bank as modelled on the Indiana one (e.g. Hammond 1948), but this interpretation of the Illinois bank is misleading – see n. 16.

Wisconsin

Wisconsin had a 'free banking' experience similar to Illinois. The territorial legislature was initially very hostile to banking and did what it could to prevent it,[15] and the prohibition on banking was continued under the constitution of the new state until it was reversed and a 'free banking' law passed in 1852 (Hammond 1948: 8). One hundred and forty 'free banks' were set up, and 37 eventually failed (Rolnick and Weber 1983: table 2). Wisconsin's 'free banking' appears to have been relatively successful throughout the 1850s and there were no failures until 1860–61 (Rolnick and Weber 1984: 280). The balance-sheet data provided by Rolnick and Weber (1985: table 3) indicate that those Wisconsin 'free banks' that failed had secured 48.8 per cent of their note issues with the Missouri 6s that subsequently lost over half their market values in 1860–61 and inflicted such damage on the 'free banks' of Illinois, and an additional third or more of their note issue was secured by the bonds of other southern states that also fell very heavily in price. The failed 'free banks' of Wisconsin were thus the victim of the same fiscal instability as their Illinois counterparts.

Ohio

Ohio had a charter system until its banking system was overhauled in 1845 and a dual system established in which a state bank was established to operate beside 'independent' ones (Holdsworth 1971: 33). Branches of the state bank were obliged to contribute to a safety fund, and independent banks were subject to a bond-deposit provision but there was no automatic free entry (Rockoff 1975a: 121–22). These reforms helped develop the banking system, but there was still a feeling in 1850 that the state did not have enough banks or enough bank capital (ibid.: 56), and this feeling led to the passage of a 'free banking' law in 1851. The 'free banking' law was apparently successful – one Ohio historian noted that the 'banks organized under the general banking laws of 1845 and 1851 were attended by a high degree of success, and furnished a currency well adapted to the business wants of the people' (Huntington 1964: 479) – and while there were some failures, noteholder losses were trivial at most (Rockoff 1975a: 16).

15 See note h to the Appendix.

Indiana

Indiana set up what was nominally a state branch bank but really a system of private chartered banks in 1834 (see Calomiris 1989: 15).[16] Yet despite the fact that many modern historians have regarded this system as very successful, the legislature none the less chose in 1852 to pass a 'free banking' law modelled on that of New York. Ninety-four banks were established in three years and the circulation increased from $3.5 million to $9.5 million (Hammond 1948: 12), and 104 'free banks' were established altogether (Rolnick and Weber 1982: table 2). Some 86 per cent of these banks closed, but only 31 per cent actually closed without paying their creditors at par (i.e. failed). Most of these failures occurred in 1854–55 (Rolnick and Weber 1983: table 5) and can be traced to the large falls in the prices of Indiana state bonds which occurred just before the failures, and which would have inflicted capital losses on the holders of Indiana bonds (see, for example, Rolnick and Weber 1984: figure 1). These failures notwithstanding, Indiana's 'free banking' appears to have been reasonably successful – Rockoff (1975a) quotes the state auditor's assessment in 1856: 'The experiment of free banking in Indiana, disastrous as it has been in some particulars, has demonstrated most conclusively the safety and wisdom of the system' (p. 22) – and there were 18 'free banks' still operating on the eve of the Civil War (p. 98).

Minnesota

Minnesota had an unusual experience with 'free banking'. A 'free banking' law was passed in July 1858, and 16 'free banks' subsequently opened (Rolnick and Weber 1982: table 2). Seven of these then failed in the period from June to September 1859, and two more in the period from June 1860 to June 1861 (Rolnick and Weber 1986: 884). The cluster of failures in 1859 and the low redemption rates of these failed institutions – Rolnick and Weber (1988: 57) report an average redemption rate of only 21.25 cents on the dollar – had

16 While many previous writers have admired Indiana's state monopoly bank – Holdsworth (1971: 32) comments that it 'stands out as the most striking exception to the rule of failure among state-owned banks' – the Indiana bank was a state monopoly in name only. As Calomiris (1989) points out, the Indiana branches were 'separately owned and operated' (p. 15), and the language of state monopoly was required because the 'state constitution only provided for the chartering of a state bank and its branches' (p. 29, n. 21). The state monopoly in Indiana only appeared to work because it only appeared to be a state monopoly, and the state banks of Illinois and Missouri failed because they were apparently real state monopolies.

led many earlier writers to the conclusion that 'free banking' in Minnesota had been a failure, but Rolnick and Weber (1988) have put forward an interpretation of the Minnesota experience that suggests it was more successful than had hitherto been realised. The Minnesota law was amended in August 1858 to allow US or Minnesota bonds valued at par to be used as eligible assets, and the 'free banking' laws were passed at almost the same time as the 'five million dollar' loan bill which provided for an issue of Minnesota state debt – the Minnesota 7s – secured de facto by the assets of the railroad companies whom the bill was designed to assist (ibid.: 54–57). What was effectively private debt was thus classified as state debt, and was therefore eligible security for a note issue. Five banks were then set up which secured their note issues with Minnesota 7s, and they all failed the next summer when the railroad boom ended and the railroad companies themselves failed (ibid.: 57). (The reasons for the failures of the other Minnesota banks are not clear.)

While earlier writers interpreted these banks as 'wildcats', Rolnick and Weber suggest they should be interpreted as mutual funds whose liabilities were priced to reflect the riskiness of their assets. They emphasise that the notes of these mutual fund banks were not sold and did not trade at par (ibid.: 57) – and the implication is that earlier estimates of noteholder losses are inappropriate since they were based on the assumption that the notes had been sold at par. Rolnick and Weber suggest these institutions performed a useful intermediation service – enabling ordinary people to invest in the railroads on the one hand, and providing the railroads with finance on the other – and they present compelling evidence that the public were well-informed and knew the risks involved (ibid.: 67). The railroad banks were set up by St Paul brokers who appointed nominal owners out-of-state to protect themselves from extended liability, and the first-lien provisions of the laws were circumvented by the banks making loans to the brokers secured only by promises to repay banknotes (ibid.: 59). To prevent arbitrage at their expense by the public, the railroad banks refused to redeem at par the notes they sold at a discount, and they announced this policy clearly in advance (ibid.: 59). Noteholders had no incentive to force the issue since they could only recover the risky assets securing the notes, minus the costs of litigation, and no one apparently tried to protest their notes. This interpretation is supported by various pieces of evidence – the timing of the railroad bank failures shortly after the failures of the railroads themselves, the discussions of the risks involved in the press, the absence of any outcry when the state government announced that it would repay the notes of failed banks at about 20 cents on the dollar, some circumstantial evidence that railroad banknotes were discounted on the market, and the fact that most other 'free banks' continued well past the summer of 1859 (ibid.: 64–70).

Other 'free banking' experiences

'Free banking' experiences elsewhere can be summarised more briefly. 'Free banking' laws were passed in Alabama, Florida, Georgia, Iowa, Massachusetts, Pennsylvania and Vermont, but few (and, in the case of Iowa, no) 'free banks' were ever formed under them.[17] One reason in most of these cases – Florida is an exception, Iowa a possible exception, and the Pennsylvania law was only passed in 1860 – was that charters were already easy to obtain before the Act was passed (e.g. in the New England states) or else the passage of the Act was accompanied by a more liberal chartering policy (e.g. in Alabama). An additional reason seems to be that the constraints implied by the bond-deposit requirements of the 'free banking' law sometimes bound so tightly that 'free banks' were not set up because they would not have been able to compete effectively. A case in point is Massachussetts where the 'free banking' law was passed in 1851, but no 'free banks' were set up until 1859 despite the very considerable growth of the Massachussetts banking industry from a capital of just over \$4 million in 1850 to nearly \$19 million in 1857 (Knox 1969: 364; Rockoff 1975a: 125). The Massachussetts law restricted eligible assets to US (federal), New England and New York bonds which all sold at substantial premiums in the 1850s and yet were valued at par when used as collateral for a 'free bank' note issue. Banking entrepreneurs presumably preferred to apply for a conventional charter so they could avoid the tax on a 'free bank' implied by the difference between the high market price of eligible bonds and their par valuation by the authorities.[18]

17 'Free banking' laws were also passed in Connecticut and Michigan in 1857, but their effects are difficult to determine.

18 This claim presupposes that the bond collateral restrictions of the 'free banking' legislation were binding, but it seems reasonable to suppose that they were. As White (1986: 893) puts it, it appears that 'collateral restrictions forced banks to hold unbalanced asset portfolios overloaded with state bonds. Such portfolios exposed the banks unduly to the risk of declining state bond prices'. He notes further that 'It seems unlikely that banks would deliberately so overload themselves absent regulatory distortions of their asset-holding choices'. While this hypothesis needs more investigation, the fact that banking entrepreneurs were sometimes so slow to set up 'free banks' (e.g. in Massachussetts) would appear to provide it with some support. Further work might focus on whether 'free banks' held more than the required amounts of state bonds in their portfolios.

'Free banking' laws appear to have had more impact on other states. In New Jersey, a 'free banking' law was passed in 1850 and five 'free banks' were set up by August 1852 (Rockoff 1975a: 11, 102). The original act authorised issues of banknotes against US bonds or the bonds of selected states, but Virginia bonds were added to the list in 1852 at about the same time as Virginia was running a large fiscal deficit. Much of this debt was absorbed by the New Jersey 'free banks', and a number of them then failed in 1853 when the price of Virginia debt fell and undermined their net values (Rockoff 1975a: 102–4). Dissatisfaction with the restrictiveness of the financial system in Louisiana led to the passage of a 'free banking' law in 1853 (see, for example, Schweikart 1987). Six banks were chartered under the 'free banking' law in the 1850s and there was some growth, albeit slow, in the banking industry that decade, growth being restricted, perhaps, by the 'stiff' reserve requirements that Louisiana banks had to observe (Green 1972: 201; Rockoff 1975b: 163). The Louisiana banking system was strong and solid, and in common with several other southern banking systems was able to avoid any suspensions in the crisis of 1857 (Pecquet 1990: 3).[19] Ongoing controversy in Tennessee about the siting of the branches of the state bank apparently led to the abolition of the state bank and the passage of a 'free banking' law in 1853. The number of banks then rose rapidly and the industry boomed (Rockoff 1975a: 11; Schweikart 1987: 276–77). As Schweikart recently observed, 'Contrary to the oft-cited assumptions of some modern historians … free banking in the southern states of Louisiana and Tennessee … produced fairly sound institutions and increased competition' (Schweikart 1987: 170).

If they did not, as White (1986: 893, n. 3) points out, then there is prima facie evidence that the restrictions were binding; if they did, on the other hand, then the restrictions clearly were not. Assuming that the hypothesis is valid, then one can properly attribute the 'free bank' failures not only to the fiscal instability that produced the bond price falls, but also to the bond-deposit requirements as well. It was the latter that exposed the banks to capital losses, and the former that inflicted the losses on them.

One objection also needs to be considered. King (1983: 147) disputes the claim that the bond-deposit requirements were responsible for the failures and argues that 'there are natural means for any bank to undo any pure portfolio restriction. Banks should simply have as owners or creditors individuals who would otherwise hold amounts of government debt'. However, this irrelevant result does not apply when there are limitations on agents' liability (see Dowd 1989: 149–50, n. 31). (It would be interesting to test the issue, nonetheless, since King's argument makes the empirical prediction that bond-deposit requirements should have no impact on the prices of state bonds. I would expect that such a test would find this prediction to be rejected.)

19 Pecquet (1990: 3) also notes: 'This solid banking system depended upon a unique state constitution which forbade the legislature or governor to authorize or aid specie suspension in any way' – an assessment which would seem to reinforce the earlier comments about the potential damage done by suspension laws.

We now leave the different states' experiences of 'free banking' and turn to some of the broader issues raised by ante-bellum banking.

'Wildcat banking'

'Wildcat banking' is a subject on which traditional histories of ante-bellum banking have placed considerable emphasis. The notion of a 'wildcat bank' is misleadingly easy to grasp – it suggests an institution that is unsound and irresponsibly run, and that probably sets out deliberately to 'rip off' the public – but it defies attempts to pin it down precisely despite its superficial intuitive appeal. The difficulty is illustrated by Rockoff's definition – and note that earlier writers usually sidestepped the problem by avoiding definitions altogether – of a wildcat as a 'bank that issued notes in a much greater volume than it could continuously redeem, and that came into being as a result of a liberal entry provision in a free banking law' (Rockoff 1975a: 5). It is not at all clear what this definition effectively amounts to. Most banks operate on a fractional reserve, so it is questionable whether they 'could' redeem their notes continuously anyway. But one would presumably be reluctant to say that all fractional-reserve note-issuing banks in this period were 'wildcats' – to do so would concede that the notion was more or less useless – and yet it is not clear what alternative construction one can make of this clause that drives the appropriate wedge between 'wildcat' banking on the one hand and 'good' fractional-reserve banking on the other. And the fact that Rockoff then ties the notion of a 'wildcat' to an institution that operates under a 'free banking' law in no way clarifies the issue – it relates 'free' and 'wildcat' banking in terms of definition, but does not tell us what 'wildcat' banking actually *was.* The term 'wildcat' is ultimately a colourful label, but it does not capture any well-defined theoretical construct. If 'wildcat' banking exists at all, it exists, like beauty, only in the eye of the beholder.

Many observers have nonetheless looked at ante-bellum banking and thought they saw 'wildcats' – whatever they might be – and they have insisted, furthermore, that 'wildcat' banking was an important, indeed, critical, element in the ante-bellum banking experience. These claims seem to boil down to the hypothesis that an important proportion of banks in this period were unsound in some sense, but such a hypothesis would seem to be both implausible a priori and empirically refuted. It is implausible because it fails to explain why people would choose to patronise such institutions in the first place. If the public preferred 'responsible', solid banks, then how could 'wildcat' banks attract any business when they were presumably out-competed? The wildcat hypothesis also seems to presuppose that the banker can simply issue notes and then disappear with the proceeds. He would lose the bonds deposited with the state authorities, of course, but the hypothesis maintains that it would be worth his while if the value of those bonds fell below the value of the liabilities outstanding (see, for example, Rockoff 1974, 1975a.) One difficulty here is that such behaviour is effectively fraud, and various laws already existed to prevent it. At a more basic level, if noteholders were afraid of being ripped off, then they would have insisted on adequate security from the banker – that he has 'respectable' people on his board of directors whom they believe are unlikely to sanction 'misbehaviour', that he acquires a stake in the local community (e.g. by making loans to it), and so on – and the threat of losing this security undermines his incentive to disappear with his proceeds (see also Rolnick and Weber 1984: 272). And, to take the argument full circle, it is precisely this security that gives the 'good' banker the competitive edge over the 'wildcatter'.

The wildcat hypothesis also appears to be rejected empirically. As Rolnick and Weber (1982: 14) point out, the banknote *Reporters* which warned of counterfeit and dishonoured notes would surely have said something had it been common for bankers to abscond with whatever assets they could take. They also present empirical evidence which indicated that two of the empirical predictions of the wildcat hypothesis – that wildcat banks should stay in business only a short time, and that noteholders should suffer losses when they failed – were only satisfied for 7 per cent of failed banks in their sample of failed banks from Indiana, Minnesota, New York and Wisconsin (1982: table 2). One should note, too, that the conditions that Rolnick and Weber test are only necessary conditions, and (in the absence of a well-defined notion of a wildcat bank) cannot be treated as sufficient ones. Their evidence indicates, therefore, that 7 per cent is only an upper bound on the proportion of bank failures that might be explained by wildcat banking. Their claim that 'wildcatting' was relatively unimportant is also supported by the empirical work of Economopoulos on Illinois. He identified three characteristics of a 'wildcat' – that it should last less than a year, that it should be set up when there was a 'wildcat' profit to be made on the note issue, and that it should be set up in an inaccessible location – and finds that only one 'free bank' out of 141 satisfied all three conditions, and only eight even satisfied two (Economopoulos 1988: 261).

In short, the notion of wildcat banking is entertaining but ultimately provides little understanding of ante-bellum banking. Hammond (1948: 24) was not far off the mark when he wrote that 'wildcat' banking is falsely taken as 'typical, being in accord with picturesque notions of frontier life [but that] fancy and theory have gone hand in hand to exaggerate the 'wild-cat' banks' importance'. And Rockoff (1975a: ii) himself wrote:

> To a remarkable extent the reigning view [about wildcats] is derived from purely anecdotal evidence … the traditional interpretation has been influenced by a small number of stories about wild-cat banks. It is not surprising that these stories are repeated frequently, for wild-cat banking is a romantic diversion from the usual dull recitation of statistics that makes up the backbone of most banking histories … little quantitative evidence has been presented that wild-cat banking was sufficiently frequent and harmful to constitute a basis for condemning free banking, and … few theoretical arguments have been advanced to show that wild-cat banking could not have been prevented without abandoning free banking.

The causes of the 'free bank' failures

Much ink has been spilt over the causes of the 'free bank' failures. Earlier writers often ascribed the failures to 'wildcatting', but as we have just seen, the wildcat hypothesis is unsatisfactory as a theoretical explanation, and recent empirical work indicates that it is consistent with only a small proportion of the failures anyway. We therefore have to look elsewhere, and two other factors suggest themselves. One was the occasional tendency of state governments to intervene to suppress the convertibility of bank money. As the Michigan experience of 1837 illustrated, this intervention could eliminate the check on banks' issues and open the way for a major overexpansion, and while the Michigan suspension law was perhaps the most notorious example, many other states also adopted suspension laws during the panics of the late 1830s and 1857. Such laws illustrated what Smith (1990) regards as 'probably the worst feature of the American system' – the 'extreme laxity with which the principles of bankruptcy were applied to insolvent banks'.

A second major cause of the failures was the capital losses inflicted on 'free banks' by falls in the values of the state bonds held in their asset portfolios. A bank's liabilities were basically fixed in value, so its net worth depended on it maintaining the value of its assets, and a sufficiently large fall in the value of these assets could wipe out that net worth. There is considerable evidence to link 'free bank' failures with such capital losses, and these losses, in turn, can be linked to the fiscal instability that certain states experienced at particular times. Some evidence is presented by Rolnick and Weber (1982: table 3) using data for the states of New York, Indiana, Minnesota and Wisconsin over the years 1852–63. They use Indiana bonds as a proxy for the assets held by the 'free banks' in these states, and the prices of these bonds fell 25 per cent in the second half of 1854, 20 per cent from March to October 1857, and about 20 per cent from October 1860 to August 1861 (ibid.: 16). The bonds therefore fell for a combined period of about two years out of the total sample period, and yet 54 (or 79 per cent) of the 68 known 'free bank' failures in these states during the sample period occurred during these two years (ibid.: table 3). Rolnick and Weber (1984: table 9) present comparable results for the same states over the longer period of 1841–61 – which, in effect, means the same sample plus New York over the additional period – and found that 76 out of the 96 known failures (i.e. 79 per cent again) occurred during periods of falling bond prices (ibid.: 288). Economopoulos (1988: 262) provides even stronger evidence from Illinois. He takes the whole population of known 'free bank' failures – 91 in all – and finds that all of them occurred in periods of falling bond prices. The severity of these bond price falls and the amounts of them held by failed 'free banks' also lend support to the view that they contributed in a major way to the failures. Rolnick and Weber's figure 1 (1984) indicates that Indiana 5s fell about 80 per cent in value from January 1841 to April 1842, for example, and we already noted Rolnick and Weber's observation (1985: 8) that the 17 New York 'free banks' that closed in the first four months of 1842 held no less than 95 per cent of their asset portfolio in the form of the bonds of states which defaulted on their debts. Similarly, there were large falls in the prices of southern bonds with the onset of the Civil War – for example, Lousiana 6s fell 53 per cent, Missouri 6s 57 per cent, North Carolina 6s 56 per cent and Virginia 6s 59 per cent – and Rolnick and Weber's 'free banks' that failed in 1860–61 secured about 84 per cent of their note issues with southern bonds that fell severely in price (Rolnick and Weber 1984: 288; 1986: 887). The history of the period also makes it clear that these bond price falls were related to fiscal factors. The fall in the prices of Indiana state bonds in the early 1840s were related to fears that Indiana would default on its debt (Rolnick and Weber 1986: 884), and the falls in the prices of southern bonds in 1860–61 were related to fears of southern repudiation with the outbreak of the Civil War. In the final analysis, the losses that put so many of the 'free banks' out of business were ultimately caused by fiscal and, at an even more basic level, by political factors.

Banking stability during the ante-bellum period

A number of issues have been raised regarding the stability of American banking during this period. A key concern has been that banking problems may have been contagious – that the difficulties of one bank or one group of banks should adversely affect public confidence in other banks. If note-holders or depositors are imperfectly informed, so the argument goes, then (Rolnick and Weber 1985: 5)

> they might have – rightly or wrongly – interpreted the redemptions and failures at some banks as evidence that their own bank was also in trouble. In this way a local shock … could have caused … a large number of bank failures and closings that were not warranted by the local shock.

Rolnick and Weber looked for contagion using their data set for New York, Indiana, Minnesota and Wisconsin, but they found very little evidence of it. Bank failures tended to be clustered, and they found that clustered failures in one state – in New York in 1841–42, in Indiana in 1854, in Minnesota in 1859 and in Wisconsin in 1860–61 – were associated with shocks that were specific to particular groups of banks (in fact, as already noted, these banks failed because they held large amounts of particular state bonds whose prices fell dramatically). In fact, they found that there was little tendency for these banking problems to spread to other states (1985: 5–8; 1986: 885–87). Rolnick and Weber (1986: 887, n. 7) also looked for evidence of intrastate contagion, and found little evidence of that either.[20]

20 The claim that there was little or no contagion has, however, been challenged recently by Hasan and Dwyer (1988), who present some circumstantial evidence and the results of logit analysis. In their model the probability of failure depends on the value of bonds relative to capital, the remoteness of the bank's location, and a dummy variable which takes the value 1 if another bank failed in that county, and 0 otherwise, and they interpret the positive sign and statistical significance of the dummy variable as evidence of contagion. This interpretation of their results is open to the objection, however, that while the dummy might pick up contagion, it will also pick up any other factor that the first two variables proxy inadequately, but which is also linked to the failure of a neighbouring bank – conditions in the local economy come to mind – and these alternative explanations need to be ruled out before one can claim to have established the presence of contagion.

The ante-bellum period also saw some experience with private banking 'clubs' that both helped member banks and 'regulated' them. These clubs can be viewed as attempts to reap economies external to the individual banking firm, but internal to the industry, in a context where the most direct means of exploiting these economies – amalgamation – was subject to legal restrictions. Perhaps the most famous example is the Suffolk system in New England. (For more on the Suffolk system, see Trivoli (1979), Mullineaux (1987) and Selgin and White (1987).) In 1819 the Suffolk Bank of Boston attempted to counter the Boston circulation of out-of-town ('country') banks by buying up-country banknotes at their currently discounted prices in Boston and then presenting them to their issuers for redemption. The Suffolk system gradually developed into a multilateral clearing system, membership of which involved certain obligations – members had to maintain permanent deposits at the Suffolk, and to 'behave themselves' – but also gave member banks a public signal of 'good standing' and access to credit facilities provided by the Suffolk. Most banks judged the benefits of membership to be worth the costs, and the Suffolk system gradually spread over much of New England (see, for example, Sumner 1971a: 417). It 'created lasting benefits for the New England economy' (Trivoli 1979: 5) and was successful in various specific ways: it initially reduced discounts on the notes of member banks, and ultimately eliminated them, and thus helped to 'unify' the currency provided by different note-issuers; it provided a cheap and effective clearing system, and ensured the rapid return of notes and cheques to their issuers; it economised on monitoring costs (instead of the public having to monitor each bank themselves, much of the monitoring was delegated to the Suffolk and the public had merely to monitor the Suffolk and take note of any expulsions from the Suffolk system); and it provided emergency loans to member banks, and was well-placed to do so because it was already monitoring them. The weaknesses of the system were that the Suffolk combined the sometimes conflicting roles of club owner, club manager and club member, and the product provided by the Suffolk was more 'hierarchical' than many member banks wanted. The Suffolk's 'dictatorial' attitude provoked frequent complaints, and after earlier attempts had failed, a group of banks at last succeeded in 1855 in obtaining a charter for a rival bank – the Bank for Mutual Redemption (BMR) – which was to take over the Suffolk's note-exchange function and offer a less hierarchical product. (It was to impose less irksome conditions on members but provide no overdraft or vetting facilities as the Suffolk did.) The BMR finally opened in 1858 and a brief struggle ensued which ended with the withdrawal of the Suffolk from the note-exchange business. The Suffolk system was replaced by that provided by the BMR, and the new system lasted until it was destroyed by the note restrictions of the National Banking System in the 1860s.

A related institution was the clearing-house association (see Timberlake 1984: 3–4). Like the Suffolk system, these institutions initially arose to economise on redemption costs. Banks would tend to take in each other's notes in the course of business, and they soon realised that it would be more convenient for bank representatives to meet together at a central clearing house than it would be to arrange a series of bilateral note exchanges. One bank would typically be assigned to administer the clearing process, and member banks would keep balances with it with which they could settle their accounts. Later on, the administration of the clearing process would be transferred to a clearing-house institution established for the purpose, and the clearing house would economise on specie by issuing certificates of its own which would be used in the clearing process in place of coins. The most important clearing-house association was the one in New York founded in 1853, and the role of the New York association soon expanded significantly during the crisis of 1857. While the banks' initial reaction to the crisis was to want to curtail their loans, the New York association arranged a coordinated response by which they allowed their reserve ratios to fall while the association began to issue loan certificates which were to be used to supplement specie and which were secured against clearing-house assets. These certificates helped to alleviate the specie shortage and enabled lending to continue, and they were retired after the crisis had subsided. The role of the clearing house expanded further when it arranged for the issue of more loan certificates and a coordinated bank policy in the run-up to the Civil War (Timberlake 1984: 4–5). Unlike the system provided by the BMR, the clearing-house associations survived the National Banking legislation and continued to evolve until the crisis of 1907.

This period also saw the establishment of the first systems of state-sponsored liability insurance. Like the Suffolk–BMR systems and the clearing-house associations, these schemes are perhaps best viewed as substitute means by which banks could reap the economies of scale which legal restrictions implied they were not allowed to exploit by the more direct means of amalgamation. In this regard it is significant that southern banks faced relatively few amalgamation restrictions, and were generally comparatively large, reasonably well-diversified and noticeably more stable than many of their northern counterparts. Northern banks were frequently hemmed in by amalgamation restrictions (e.g. restrictions on branching), and their greater instability was almost certainly due, in part at least, to their restricted ability to diversify risks. This instability gave rise to political pressure to protect the small banks, and some state governments responded by instituting liability insurance schemes to protect them – New York in 1829, Vermont in 1831, Indiana in 1834, Michigan in 1836, Ohio in 1845 and Iowa in 1858 (see Calomiris 1989). The schemes fall into one of two main classes, though the particulars vary somewhat in each case. There were the New York 'safety fund' and the Vermont and Michigan systems loosely modelled on it, which Calomiris (1989:12) characterises as 'complete failures' and which ultimately defaulted. Insurance premiums were fixed and there was little or no attempt to relate them to banks' risk-taking, there was little incentive for banks to monitor each other and no effective supervision (i.e. the systems created moral hazard and failed to control it) and the systems tended to attract bad-risk institutions (i.e. had a bad adverse selection problem). The other systems were 'mutual guarantee' schemes modelled after the one introduced by Indiana which Calomiris (1989: 16) assesses as 'extraordinarily successful'. These schemes were actuarially much sounder, they provided more effective supervision and a stronger incentive for banks to monitor each other, and they were mostly managed by the banks themselves. All three were successful and lasted until the suppression of state note issues by the National Banking System.[21]

De facto free banking

One feature of ante-bellum banking experience that has often been touched upon but seldom addressed in any depth is the extent to which many states experienced free or competitive banking de facto (as opposed to banking

21 The stability of the banking industry of the period is also borne out by other indicators. Particularly important is its capital adequacy. Salsman (1990: 95) notes that 'the banking system restored its capital adequacy in the first decade of free banking from 40.5 per cent in 1836 to 55.1 per cent in 1842, the greatest capital adequacy level and the swiftest rise in the entire history of banking'. He also notes that there was 'no appreciable deterioration of banking capital adequacy' in the remaining 'free banking' period. Sechrest (1990: 102) also notes that capital adequacy was very high, and he notes too that capital ratios became more stable towards the end of the 'free banking' era. Indicators of banking liquidity reinforce the impression of the industry's stability. Salsman's cash–deposit ratio shows a steady climb from over 42 per cent in 1836 to 54.2 per cent in 1844, and it varies thereafter between 36.2 per cent and 41.5 per cent (Salsman 1990: table 17). Sechrest's reserve ratio, on the other hand, has a value of just over 20 per cent for 1834–49, and almost 18 per cent for the period 1850–62 (Sechrest 1990: 100–2). Sechrest also points out that commercial paper rates were lower and less variable in the period 1850–62, which saw the large-scale switch to 'free banking' than they had been in the earlier period 1834–49 (Sechrest 1990: 110).

under a 'free banking' law). While no state ever had pure laissez-faire in banking, many states had banking regimes which imposed relatively lax restrictions and which therefore gave a reasonable approximation to banking laissez-faire. Massachussetts provides a good example. Massachussetts operated a charter system, but charters were apparently granted relatively routinely after 1820 (Sylla 1985: 108) and the banking industry was widely regarded as competitive and successful (e.g. E. N. White 1990b: 27). Pennsylvania also operated a charter system with a reasonably liberal chartering policy, and the Pennsylvania banking industry appears to have been at least moderately competitive and successful.[22] New York had something close to free banking after the passage of its 'free banking' law in 1838, and the success of New York banking has already been noted. Alabama also enjoyed something like free banking after the passage of its 'free banking' law in 1849 – few 'free banks' were actually chartered, but the legislature simultaneously adopted a more liberal chartering policy – and the more liberal regime of the 1850s saw the Alabama financial sector recover from its earlier decline (Schweikart 1987). Banks were theoretically prohibited in Florida from 1845 until the passage of the 'free banking' law in 1853, but unchartered banks apparently operated there with considerable success. Schweikart (1987: 170) could say that these 'private bank agencies had preempted the revised banking law and operated so effectively that no reason to welcome new banks existed', and he went on to note that 'Florida had experienced free banking for a decade before it became official' (ibid.: 174).[23] The south also

22 There is, however, some controversy over how competitive the Pennsylvania banking system actually was. Evidence in favour is suggested by casual observation and a comment by the state auditor-general in 1863 that the reason so few 'free banks' were formed was the ease with which special charters could be obtained, which, incidentally, also imposed less onerous conditions than the 'free banking' law (Knox 1969: 460). However, Rockoff (1975a, 53) suggests that Philadelphia banks enjoyed a rather high profit rate, which he attributes to restrictions on entry, and he presents anecdotal evidence that Philadelphia banks were undercapitalised.

23 The experience of Florida underlines the importance of private (i.e. unchartered or unincorporated) banking in the ante-bellum US. Schweikart (1987: 80) writes:

> Unaccounted currencies, especially small-note issues, played an extremely important role in the antebellum southern economy but have defied attempts at measurement ... [for example] Georgia chartered 150 'potential currency-issuing organizations' between 1810 and 1866, and more than fifteen hundred varieties of currency of this type circulated in the state ... Florida, without chartered banks of its own, relied heavily on unaccounted currencies for its circulating medium.

Sylla (1976: 181) also indicates that they were a widespread and important phenomenon. He notes that though 'Quantitative information ... is scarce, ... what there is of it suggests that the private banker was considerably more important than previously thought', and he presents provides other interesting examples of approximate free banking. South Carolina had chartered banks which were allowed to branch statewide, and the South Carolina banks were sound as well as competitive. As Knox (1969: 567–68) observed:

> The laws regulating banks in South Carolina gave satisfaction throughout the country, affording as they did a sound currency and ample accommodation to the people. A Bank of Charleston note was current from Maine to Texas, and even circulated in England and the Continent of Europe.

Virginia is another example. Virginia had a system of chartered branch-banks, and as in South Carolina, the banking system was both stable and competitive. Schweikart (1987: 126) observes that there were no failures, and consequently no noteholder losses, and he concludes that on the eve of war, Virginia 'could look back upon a decade marked by generally wise legislation and adequate, if not notable, growth in its banking system' (ibid.: 275).[24] Altogether, at least 17 states could reasonably be said to have had approximate free banking – there were probably more, but it is hard to assess the competitiveness of the banking regimes in a number of other states (see the note to Table 17.2) – and it is surely highly significant that all appear to have been at least moderately successful and there are no obvious 'failures'.

General assessment

The most obvious (and overwhelming) feature of US banking experience over this period is its sheer diversity. Some idea of the extent of this diversity

some indicative evidence to back that claim up (e.g. how some restraining acts were successful in 'smoking out' private bankers). Also revealing is a comment by James Gurthrie, the Treasury Secretary, who reported to the House in 1856 that the capital of private banks was more than a third of that employed in chartered banks (Sylla 1976: 184). Hammond (1948: 16) and Klebaner (1974: 12) indicate that private banking was important in the West as well, and the latter observes that, by 1860, private banks in Ohio, Indiana, Illinois, Michigan and Wisconsin had issued more deposits than the combined liabilities of chartered banks in those states.

24 Virginia gives a good example of the difference between 'free' and free banking. It had supplemented its chartered banks with a law to allow bond-deposit banking in 1851 – although note that this law omitted the 'free entry' principle (Rockoff 1975b: 163) – but bond-deposit banks were not allowed to branch as easily as chartered ones. Aided by branch banking, Virginian banks were 'strong and stable', and there were no failures (Schweikart 1987: 126). Thirteen bond-deposit banks opened soon after the 1851 law (E. N. White 1990b: 22), but these banks had great difficulty competing against the chartered banks, which expanded their branch networks to compete with them (Schweikart 1987: 274; E. N. White 1990b: 22).

can be gauged from the Appendix, which lists the main features of each state's legislative regime and the most noticeable aspects of its banking experience (as far as I could assess them). Legislative regimes ranged from the total prohibition of banking at one extreme to something close to free banking towards the other, with state monopoly banks and various forms of state charter and 'free banking' systems at points in between. Some of the main features of these experiences are summarised in the first four tables. Table 17.1 lists the states that adopted 'free banking' laws and gives an assessment of the outcome in each case. As the table indicates, 18 states adopted 'free banking' at some point, and Michigan did twice. The first three 'free banking' laws were passed in Michigan, New York and Georgia in 1837–38, the fourth in Alabama in 1849, and the remainder in the period from 1850 to 1860. In seven cases – Alabama, Florida, Georgia, Iowa, Massachussets, Pennsylvania and Vermont – few 'free banks' if any were ever set up. In two other cases – Connecticut and Michigan in 1857 – I could find no real indication of the outcome. Of the remaining ten, 'free banking' was very successful in New York, and at least moderately successful in Illinois, Indiana, Louisiana, Minnesota (apparently, if one adopts the Rolnick and Weber (1988) mutual fund interpretation of the railroad banks), Ohio, Tennessee and Wisconsin. A considerable number of failures occurred in Illinois and Wisconsin around the outbreak of the Civil War, and in New Jersey in 1853, but these failures can be traced to the losses banks suffered on their asset portfolio and be plausibly attributed to government policy, and the apparent disaster of Michigan in 1837 can be largely attributed to the state-induced suspension that quickly followed it. As far as one can tell, therefore, 'free banking' appears to have a reasonably good record, and most of the problems it encountered can be put down to government policies of one sort or another.[25,26]

25 Despite the fact that 'free banking' laws were often (apparently) intended to lower entry barriers, it is far from clear that they usually did. If entry barriers fell, we would expect to see the state-level output of banks grow after the passage of 'free banking' laws. Ng (1988) tests for this prediction using data for seven 'free bank' states and finds that it is only demonstrably satisfied for New York. He concludes that 'free banking laws did not generally lower barriers to entry [or] increase competition in the banking industry' (ibid.: 886), and suggests that the explanation might be the conditions attached to the establishment of 'free banks' and that fact that chartered banking in some states was reasonably competitive already (ibid.: 887). However, Bodenhorn (1990) presents results that suggest that 'free banking' laws might have been more effective in promoting bank competition than Ng's results indicate.

26 The figures for bank failures and noteholder losses also suggest that these have been exaggerated by earlier historians. Rolnick and Weber (1983: 1084) find that in their four states about half the

Table 17.1 States with 'free banking' laws

State	*Date of Act*	*Outcome*
Alabama	1849	Few 'free banks'
Connecticut	1852	Unknown
Florida	1853	Few 'free banks'
Georgia	1838	Few 'free banks'
Illinois	1851	Successful until 1861
Indiana	1852	Moderately successful
Iowa	1858	No 'free banks' established
Louisiana	1853	Moderately successful
Massachusetts	1851	Few 'free banks'
Michigan	1837	Apparent disaster
Michigan	1857	Unknown
Minnesota	1858	Quite successful
New Jersey	1850	Some failures
New York	1838	Very successful
Ohio	1851	Successful
Pennsylvania	1860	Few 'free banks'
Tennessee	1852	Successful
Vermont	1851	Few 'free banks'
Wisconsin	1852	Successful until 1860

Note: In addition, Kentucky, Missouri and Virginia adopted bond-deposit laws but not 'free banking' laws as such (in 1850, 1858 and 1851 respectively).

If 'free banking' has a good record, free banking has an even better one. Table 17.2 lists the states that had reasonably competitive banking regimes (i.e. de facto free banking, or a reasonable approximation to it), the periods roughly when this occurred, and a brief assessment of the outcome. Seventeen states appear to have had de facto free banking over some period. All appear to have been at least reasonably successful, and four

banks closed before 1863, but less than a third actually failed and did not redeem their notes at par (i.e. 15 per cent failed altogether). They also suggest that New York and Wisconsin banks were not very short-lived, and only 14 per cent failed to last a year (ibid.: 1086). Kahn (1985: 882) is less sanguine, however, and suggests that banks in 'free banking' states had much shorter life expectancies than banks elsewhere. (The explanation, presumably, has to do with the combination of the bond-deposit requirement and the states' fiscal instability discussed earlier.) Estimates of losses vary somewhat – losses were very low in New York, as already mentioned, but they were sometimes higher elsewhere (see, for example, Kahn 1985: 884–85), and these losses presumably reflect the factors that caused the 'free bank' failures.

(Massachussetts, New York and North and South Carolina) were arguably very successful indeed. Unless one includes the perverse case of Michigan in 1837, which is of questionable relevance anyway due to the suspension law, there were no cases in which de facto free banking can be said to have demonstrably 'failed'. One should also bear in mind that the table almost certainly *understates* the success of free banking in so far as it excludes a number of cases – New Jersey and several New England states, among others – where the competitiveness of the banking system could not easily be assessed, but where one would be very surprised if the banking system was not both reasonably free and relatively successful. What is also striking is the extent to which the cases of 'free banking' and free banking differ. While there are some experiences that can be considered as both 'free' and free – Alabama (perhaps), Florida, Georgia and Ohio (in part), and Illinois, Indiana, Minnesota, New York, Tennessee and Wisconsin – many belong to one category but not the other. Connecticut, Michigan, New Jersey and Vermont all had 'free banking' laws, but I have not been able to find any notable evidence that they had free banking. A number of other states (Florida, Louisiana, Maryland, Massachussetts, North and South Carolina, Pennsylvania, and Virginia) had something like free banking over periods for which they had no 'free banking' laws – some of these states in fact never passed 'free banking' laws at all – and these experiences include some of the most successful cases of de facto free banking (e.g. the cases of Massachussetts and the Carolinas). There is thus a considerable discrepancy between the experiences of 'free banking' and free banking, and we must be careful not to confuse the two.

Table 17.3 and Table 17.4 examine other aspects of ante-bellum banking. Table 17.3 lists three cases where states had monopoly state banks – Illinois until 1842, Iowa for a brief period in 1858, and Missouri until 1857. Two of these experiments – Illinois and Missouri – clearly failed and the Iowa case is (perhaps not surprisingly) hard to assess. State monopoly banks thus had a poor record, and there are no cases where any (de facto) monopoly banks succeeded. Table 17.4 looks at the experiences of those states that prohibited banking entirely – banks were banned over various periods in Arkansas, California, Florida, Iowa, Oregon, Texas and Wisconsin. The effects of the bans in California, Oregon and Wisconsin are not clear, but the prohibitions failed to achieve any sensible purpose in any of the four cases where the outcome is easily ascertainable. In Arkansas the prohibition retarded the state's financial development, in Iowa and Texas it led people to use out-of-state notes, and in Florida it led people to resort to private bankers instead. Sumner (1971a: 416) notes that 'states which had no banks … generally had a worse currency than those which had banks', and they presumably made other banking services (e.g. loans and savings facilities) more expensive to obtain. Prohibition thus failed along with monopoly banking.

Table 17.2 States with (reasonably) competitive banking regimes

State	*Dates*	*Outcome*
Alabama	1849 on	Financial recovery
Florida	1843 on?	Moderately successful
Georgia	1850s?	Successful
Illinois	1851 on	Successful until 1861
Indiana	1852 on	Moderately successful
Louisiana	1853 on?	Moderately successful
Maryland	Throughout	Successful
Massachusetts	Throughout	Successful
Minnesota	1858 on	Quite successful
New York	1838 on	Very successful
North Carolina	1850s, and maybe earlier	Very successful
Ohio	1845 on	Successful
Pennsylvania	Throughout	Successful
South Carolina	Throughout?	Very successful
Tennessee	1852 on?	Successful
Virginia	Throughout?	Successful
Wisconsin	1852 on	Successful until 1860

Note: The table only includes states where one can reasonably maintain the banking system was competitive. The competitiveness of the banking systems of Connecticut, Delaware, Iowa, Kentucky, Maine, Michigan (1857), New Hampshire, New Jersey, Rhode Island and Vermont is hard to assess. Note that Michigan (1837) is omitted as a misleading case in view of the suspension law that followed.

Table 17.3 States with monopoly state banks

State	*Period*	*Outcome*
Illinois	Until 1842	Failure
Iowa	1858	?
Missouri	Until 1857	Failure

Note: Table excludes Indiana, which had a state monopoly bank in name only, and Michigan which chartered a bank that 'imitated almost exactly' the Indiana bank (Sumner 1971a: 330) but was already in liquidation by the end of the next year.

Table 17.4 States that prohibited banking

State	*Period of prohibition*	*Outcome*
Arkansas	1846 on[a]	Failure
California	1849 on	?
Florida	1845–53	Failure[b]
Iowa	Until 1858	Failure
Oregon	1857 on	?
Texas	1845 on	Failure
Wisconsin	Until 1852	?

Notes: [a] New charters were prohibited in 1846, but the last already existing bank only disappeared in the 1850s. [b] The Florida ban only failed in the sense that it failed to achieve its objectives. Private bankers actually provided Florida with a reasonably good banking system (see Table 17.2).

In a nutshell, ante-bellum banking experience strongly suggests that liberal financial regimes were broadly successful and that state intervention by and large failed. There was also a tendency to imitate successful systems, and New York–style 'free banking' was widely copied, especially in the 1850s. By the eve of the Civil War more than half the states in the union had adopted 'free banking' in one form or another, and a number of others had liberal financial regimes even though they never passed 'free banking' laws. There was a significant improvement in banking in most states over this period – illustrated, for instance, by the growth in per capita bank money from $7.64 in 1840 to $14.21 in 1860 (Rockoff 1975b: 165) – and, as Smith (1990: 45–46) wrote:

> The improvement that took place in American banking in the twenty years preceding the Civil War was especially noticeable in the eastern region. The banking system was by no means perfect at this period, but except for the international crisis of 1857 … the situation was far steadier than before. It is very probable that this improvement was not attributable to any considerable extent to State regulations relating to bond deposit guarantees for notes. In fact, the State authorities seem to have become, after a time, rather lax in the enforcement of the law … Much the greater weight is to be attached to the more rigid enforcement of specie payments between banks by frequent exchange of notes due in great part to the spread of the Suffolk system and to the institution of the New York clearing-house.

The Civil War then broke out and the federal government intervened once again to pass the National Banking legislation of 1863–65 by which the bond-deposit provision was adopted at the federal level and the state note issues were effectively taxed out of existence. These measures were prompted by fiscal considerations and not by any well-established dissatisfaction with the existing state systems. They were also initially intended as emergency (and therefore transitory) measures to help finance the federal government's wartime expenditures, but the wartime regime was left substantially intact after the war ended and it survived with relatively little alteration until the Federal Reserve Act was passed in 1913. And so it happened that (Holdsworth 1971: 23)

> The fiscal exigencies of the Civil War checked the process of evolution and fastened upon the country the incubus of a cumbersome and unscientific banking system. But for this check it is highly probable that some such organization as the free banking system of New York … would have spread throughout the entire country.

Appendix: US banking experience, 1837–63

State	*Legislative framework*	*Comments/results*
Alabama	Chartered Banks and State Bank until 1849. 'Free banking' law passed 1849[a] and charters now granted liberally.	Chartering policy restrictive. State Bank a failure. 8 chartered and 2 free banks set up. Financial system recovered by 1860.
Arkansas	Real Estate Bank and State Bank chartered 1836. Constitutional amendment 1846 to prohibit further charters.	Both corrupt and eventually failures. Banking system backward. Some private banking.
California	Banking banned 1849.	—
Connecticut	Chartered banks. 'Free banking' law passed 1852.	—
Delaware	Chartered banks.	—
Florida	Charter system until 1845 when banking theoretically prohibited. 'Free banking' law passed 1853.	Evidence that private banks provided de facto free banking from 1843 onwards. Only two 'free banks' set up.
Georgia	Charter system with state bank ('Central Bank'). 'Free banking' law passed 1838.	Central Bank defaulted 1840. Only two 'free banks' set up. Chartering policy (apparently) liberal in 1850s. Considerable banking progress.
Illinois	Monopoly state bank until 1842. Constitution amended 1847 to ban state involvement in banking and to submit banking legislation to referendum. 'Free banking' law passed 1851.	State bank defaulted 1842. 'Free banking' very successful until large-scale failures in 1861.

Indiana	'Free banking' law was passed 1852.[b] Safety fund system throughout period.	State bank apparently successful. Substantial number of 'free banks' rapidly set up, but most went out of business by 1854. 'Free banking' apparently quite successful. Safety fund successful.
Iowa	Banking banned by 1846 constitution. Ban lifted in 1858 when a state (branch) bank was set up.[c] 'Free banking' law passed 1858. Safety fund set up 1858.	Widespread circulation of out-of-state notes during banking ban. No 'free banks' established. Safety fund apparently successful.
Kentucky	General banking law to allow bond-secured (but not 'free') banks 1850.	—
Louisiana	Charter system with branches. Banking reformed in 1842. Constitution amended 1845 to prohibit chartering and re-chartering. Constitution amended again in 1852 to allow chartering. 'Free banking' law passed 1853.	Large fall in bank capital after 1840, and banking capital only starts to recover in 1850s. Banking system in 1850s solid but grew slowly.
Maine	Charter system.	—
Maryland	Charter system. General banking law passed in 1853, but this merely consolidated existing laws and the 'free banking' principle was omitted.	Charters granted liberally, so de facto free banking.
Massachusetts	Charter System. 'Free banking' law passed 1851.	Charters granted liberally, so de facto free banking. Large increase in bank capital and number of banks in 1850s. First 'free bank' formed 1859, no more than seven 'free banks' formed altogether.
Michigan	Charter system. 'Free banking' law passed March 1837, but suspended in 1838, repealed in April 1839 and declared unconstitutional in 1844. Safety fund established 1836. Bank suspension law June 1837. Constitution amended 1850 to require that banking law be submitted to referendum. New 'free banking' law 1857.	40 banks set up in less than a year after passage of 'free banking' law, but most rapidly went into liquidation. Safety fund a failure.
Minnesota	Charter system until passage of 'free banking' law in 1858.	16 'free banks' set up. 9 'free banks' – mostly railroad banks – failed following failure of the railroad companies in 1859.
Mississippi	Charter system.	Flurry of charters in 1836–37. Banking system declined in 1840s and 1850s. By 1860 there were no unchartered banks left and the circulating medium consisted mostly of Tennessee banknotes.

Missouri	State monopoly bank set up 1837. Constitution amended 1857 to allow more banks to be chartered. Law passed to allow bank-secured banks (but not 'free banks') in 1857.	Only 3 banks set up by 1860. Some amount to private banking. Missouri financially underdeveloped.
New Hampshire	Charter system.	—
New Jersey	Charter system. 'Free banking' law passed in 1850. Virginia state bonds added to list of eligible bonds in 1852.	Absorption of VA debt by 'free banks' and 'free bank' failures in 1853.
New York	Charter system with safety fund. 'Free banking' law passed in 1838.	Flurry of 'free banks' set up shortly after passage of 'free banking' law. De facto failure of safety fund in 1842. 'Free banking' very successful.
North Carolina	Charter system with state bank and branching. Most activities of state bank wound down by 1860.	Banking system competitive and charters readily granted, especially in 1850s. De facto free banking.
Ohio	Charter System. Reform act of 1845 set up state bank and specified that its branches contribute to a safety fund, and allowed 'independent' banks subject to a bond-deposit requirement. 'Free banking' law passed in March 1851. Constitutional amendment effective June 1951 required that banking legislation pass a referendum.	Considerable increase in bank numbers following 1945 law. 13 'free banks' established in 1851–52. Laws of 1845 and 1851 apparently successful. Safety fund successful.
Oregon	Banking banned 1857.	—
Pennsylvania	Charter system. General banking law 1850. 'Free banking' law March 1860. Banks suspended November 1860.	Charters granted liberally, but bank profits quite high. 9 'free banks' formed.
Rhode Island	Charter system.	—
South Carolina	Charter system with branching and state bank.	Banking system highly stable and successful.
Tennessee	Charter system with branching. New state bank 1838.[d] 'Free banking' law 1852 and elimination of Bank of Tennessee 1857.	Apparent decline in bank numbers from 1839 to 1853. Rapid growth in banks from 1853, and considerable financial development in state banking system. Withstood crisis of 1857 easily, 'free banking' apparently successful.[e]
Texas	Banking banned by state constitution 1845.	Private banking and circulation of out-of-state notes.[f]
Vermont	Charter system. 'Free banking' law passed 1851. Safety fund system established 1831.	Four 'free banks' set up. Safety fund a failure.

Virginia	Charter system with state bank. Charter banks allowed to branch. General banking law 1837. Law passed to allow bank-deposit banking 1851.[g]	Banking system strong and stable – no failures in 1837 and 1857. 13 banks set up under bond-deposit law, but had difficulty competing against the branch-banking advantages of the chartered banks. Considerable banking development throughout period.
Wisconsin	Banks banned by territory of Wisconsin.[h] New state constitution of 1848 banned any legislative authorisation of banks unless ratified by referendum. 'Free banking' law passed 1852.[i]	140 'free banks' set up. Large number of failures when southern bond prices fell with onset of Civil War.

Notes: [a] There is some dispute over the date of this Act: Rockoff (1975a: 127) puts it in 1849, but Schweikart (1987: 269) puts it in 1850.

[b] There is also some dispute over the date of this Act: Hammond (1948: 12) and Knox (1969: 698) put it in 1853, but Rockoff (1975a: 98) and Rolnick and Weber (1984: 279) put it in 1852. I have gone along with 1852 since Rolnick and Weber give the precise date the Act was passed.

[c] Sumner (1971a: 542) states that this bank was chartered in March 1858, but Hammond (1948: 10–11) claims it was chartered in 1857. As in note b, I have gone along with the author who could give the precise date of the act (Sumner).

[d] It is not clear when this bank was chartered. Schweikart (1987: 182) gives 1838, but his table 12 gives a date of 1837.

[e] Note, however, that Knox (1969: 655) does not concur in this assessment. He suggests it performed badly and says that wildcats 'were as plentiful as grasshoppers', but he does not spell out the evidence behind that conclusion.

[f] However, Schweikart (1987: 8, 259) suggests that there was one chartered bank in operation in the 1850s.

[g] The 1851 law allowed banks to be set up under a bond-deposit provision, but Rockoff (1975b: 163) states that entry was not automatic. It therefore ought not to be considered a 'free banking' law in the strict sense.

[h] Note, however, that the Wisconsin Marine and Fire Insurance Company carried out some banking activities, and succesfully fought off legislators' attempts to stop it.

[i] There is also some dispute about the date of this act: Hammond (1948: 8) and Rockoff (1975a: 84) say it was passed in 1852, but Knox (1969: 325) says it was passed in 1855 and Sumner (1971a: 451) says it was passed in 1853.

Sources: Calomiris (1989), Hammond (1948), Rockoff (1974, 1975a, b), Rolnick and Weber (1982, 1983, 1984, 1985, 1986, 1988), Knox (1969), Schweikart (1987), Sumner (1971a).

18 GUIDE TO THE LITERATURE ON THE HISTORICAL EXPERIENCES OF FREE BANKING

This guide to the literature is intended to provide those interested – one thinks particularly of future researchers in historical free banking – with a starting point for further investigation into the subject. I cannot pretend to offer a comprehensive bibliography and I will make the point directly: to say that we do not yet have anything approaching a comprehensive bibliography on the historical experiences of free banking is a gross understatement.[1]

Let me quote Kurt Schuler's (2015) proposal to establish an international data archive on historical free banking experiences:

> In the past 40 years, enough work has been done on historical cases of free banking to show that it was a widespread phenomenon. There has been no concerted effort, however, to draw all this material together. The Internet, which did not exist when the revival of interest in free banking began, offers the chance to create an open international research hub to bring together a mass of statistical, legal, and other material on the various cases of free banking. I describe the advantages of a research hub, what components it should include, and an existing research hub that provides a model.

Amen to that. A follow-on point: as new material (e.g. older books and reports, information about banks' balance sheets, etc.) becomes available online, it will become possible for future researchers to revisit these case studies with the benefit of more information than was available to earlier researchers, and also to investigate cases that have received scant attention so far.

1 I wouldn't dare attempt such an enterprise myself. Chris Tame spent much of his later years working on his magisterial *Bibliography of Freedom* which, alas, remained unfinished at his untimely death in 2006 aged just 56. But notwithstanding his prodigious energy and ability, I doubt even he would have succeeded had he lived to be 100.

Since Schuler made his proposal, Elizabeth Qiao (2021) has produced a bibliography on the subject. It is the most extensive available and is the natural starting point for future researchers.

Useful websites and blogs

Several blogs frequently contain articles on historical free banking. The most consistently on-topic website is freebanking.org, which was set up by Brad Jensen and Chuck Moulton in 2011. It has since been taken over by *Alt-M* and its content is available there. However, Jensen continues to operate a free banking page on Facebook: https://www.facebook.com/freebanking/. *Alt-M* (https://www.alt-m.org/) is published by the Cato Institute's Center for Financial and Monetary Alternatives. The Mises Institute publishes the MI blog (see under https://mises.org/) and Mises Wire (https://mises.org/wire). The American Institute for Economic Research publishes https://www.aier.org/. The Independent Institute publishes https://www.independent.org/.

Useful and additional literature on the experiences of free banking

This section repeats some useful references (such as seminal works and important cross-country studies) that are already in the book's main list of references, and it also includes additional relevant literature that was not referred to in the country-case chapters and so does not appear in the main list.

This literature is broken down into two categories: world and multi-country articles and books; and free banking experiences by country.

World and multi-country references

Before listing the literature it is helpful to recall Kurt Schuler's passage from chapter 2 of this volume:

> The best previous compilation of free banking episodes is *A History of Modern Banks of Issue* by Charles Conant, first published in 1896. The sixth edition (1927) was reprinted in 1969. Other world surveys are Sumner (1971b), Hübner (1854), Lévy (1911), Dierschke and Mueller (1926) and Willis and Beckhart (1929). More limited surveys are Kindleberger (1984) (Western Europe), Sayers (1952) and Crick (1965) (the British Commonwealth),

Cameron (1967, 1972) (some European countries, Japan and the US), Young (1925) (Central America), Onoh (1982) (Africa) and King (1957) (British East Asia). Hahn (1968: 43–44, 62–81) and Kock (1974) have world lists of central banks. Pick (1986) and other numismatic publications are useful for information on otherwise obscure cases of free banking. The British government's colonial reports often have brief descriptions of colonial banking. Finally, of course, there are primary sources such as bank archives, newspapers and statutes.

Brown, P. (1982) Constitution or competition? Alternative views on monetary reform. *Literature of Liberty* 5: 7–52.

Cameron, R. (ed.) (1972) *Banking and Economic Development: Some Lessons of History*. New York: Oxford University Press.

Capie, F. (1993) *History of Banking, 1650–1850*. London: W. Pickering.

Carey, H. C. (1838) *The Credit System of France, Great Britain, and United States*. Philadelphia, PA: Carey, Lea and Blanchard.

Chu, K. H. (1996) Is free banking more prone to bank failures than regulated banking? *Cato Journal* 16: 47–61.

Decker, F. (2022) The monetary union of Australia, New Zealand and the United Kingdom – its operation, fragmentation and break-up. In *Jahrbuch für Wirtschaftsgeschichte / Economic History Yearbook (2022)* 63(2): 375–407. International Lending of Last Resort in Historical and Theoretical Perspectives / Internationale Kreditvergabe der letzten Instanz in historischen und theoretischen Perspektiven.

Decker, F. and McCracken, S. (2018) Central banking in Australia and New Zealand: historical foundations and modern legislative frameworks. In *Research Handbook on Central Banking* (ed. R. M. Lastra and P. Conti-Brown), pp. 245–73. Cheltenham: Edward Elgar Publishing.

Dowd, K. (1994) Competitive banking, bankers' clubs, and bank regulation. *Journal of Money, Credit and Banking* 26: 289–308.

Editor of the Journal of Commerce and Commercial Bulletin (1896) *A History of Banking in All the Leading Nations* (4 vols). New York: Journal of Commerce & Commercial Bulletin.

Goodhart, C. A. E. (1988) *The Evolution of Central Banks*. Cambridge, MA: MIT Press.

Gorton, G. (1985) Banking theory and free banking history: a review essay. *Journal of Monetary Economics* 16: 267–76.

Gorton, G. (1988) Banking panics and business cycles. *Oxford Economic Papers* 40: 751–81.

Gorton, G. (1996) Reputation formation in early bank note markets. *Journal of Political Economy* 104: 346–97.

Hildreth, R. (1837) *The History of Banks: To Which Is Added a Demonstration of the Advantages and Necessity of Free Competition in the Business of Banking*. Boston, MA: Hilliard, Gray.

Meisel Roca, A. (1989) Las bancos commerciales en la era de la banca libre, 1871–1923. Unpublished manuscript, Banco de la República, Bogotá.

Nataf, P. (1984) Competitive banking and the cycle. *History of Economics Society Annual Meeting*, vol. 2. Pittsburgh, PA (23 May): 3, 17–18.

Qiao, E. (2021) A bibliography of free banking scholarship. Studies in Applied Economics no. 193, Johns Hopkins Institute for Applied Economics, Global Health, and the Study of Business Enterprise (https://www.dropbox.com/s/mnfmwi958fn7ndj/193.-A-Bibliography-of-Free-Banking-Scholarship-2021.pdf?dl=0).

Schuler, K. (1988) Free banking. *Humane Studies Review* (Fall) 1: 5–11.

Schuler, K. (2015) Establishing an international data archive on free banking. Studies in Applied Economics no. 24. Johns Hopkins Institute for Applied Economics, Global Health, and the Study of Business Enterprise.

Sechrest, L. J. (1993) *Free Banking: Theory, History, and a* Laissez-faire *Model*. Westport, CT: Quorum Books.

Shaw, W. A. (1896) *The History of Currency, 1252–1894*. London: Wilsons and Milne.

Smith, V. C. (1990 [1936]) *The Rationale of Central Banking and the Free Banking Alternative*. London: P. S. King. (Reprinted 1990, Liberty Press, Indianapolis, IN.)

White, L. H. (2015) What you should know about free banking history. *Alt-M* (28 April).

In addition, John Zube, the publisher of Libertarian Microfiche Publishing (LMP) has assembled a vast database at http://www.libertarianmicrofiche.com/, which includes references to free banking.[2]

We now turn to country-specific literature.

Argentina

Cachanosky, N. (2012) The law of national guaranteed banks in Argentina, 1887–1890: free-banking failure or regulatory failure? *Independent Review* 16: 569–90.

Gómez, M. C. (1994) Free banking en Argentina. *Libertas* XI: 39–110.

2 LMP is an enormous undertaking on a scale comparable to Tame and includes about half a million pages of anarchist, libertarian and free market references. It was begun before the Internet existed, and, as Tame once said to me, LMP is all fine and good, but why would you want to read on a microfiche reader unless you were having a bath, and why would you want to read it in a bath?

Ravier, A. O. and Cachanosky, N. (2021) Monetary disorder in Buenos Aires Province (1822–1881). AIER Sound Money Project Working Paper 2021-04.

Australia

Decker, F. (2008) The legal and economic history of the Lien on Wool and Stock Mortgage Act 1843 (NSW) – a case study on the significance of property law for understanding economic development. *Legal History* 12: 151–75.

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Belgium

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Canada

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Chu, K. H. (2010) Bank mergers, branch networks and economic growth: theory and evidence from Canada, 1889–1926. *Journal of Macroeconomics* 32: 265–83.

Chu, K. H. (2015) Bank consolidation and stability: the Canadian experience, 1867–1935. *Journal of Financial Stability* 21: 46–60.

Fung, B., Hendry, S. and Weber, W. E. (2017) Canadian bank notes and dominion notes: lessons for digital currencies. Bank of Canada Staff Working Paper/Document de travail du personnel 2017-5.

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China

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Colombia

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IEA Foundations 2

The EXPERIENCE of FREE BANKING

With contributions from:

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Many people mistakenly – but perhaps understandably – believe that 'free banking' means paying no charges for their bank accounts.

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