The 1825 crisis and Bank of England as Lender of Last Resort

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Abstract. The actions of the Bank of England at the height of the financial crisis of 1825 are presented in more detail than has been available before. The credit for some of the novel steps the Bank took at that time that has been given to outsiders is exaggerated, as the directors had been experimenting with them surreptitiously before. Evidence is also presented that Bank directors had stronger incentives to engage in Lender of Last Resort (LOLR) operations than is usually thought. On the other hand, they appeared to be constrained by informal unwritten rules of acceptable banking behavior, and failed to engage in some simple transactions that would have been very profitable for the Bank and would also have helped mitigate the crisis.

1 Introduction

The 1825 financial crisis is often cited in histories of central banking as an important landmark in the evolution of the Bank of England towards what is now called the Lender of Last Resort (LOLR)¹. This paper, based primarily on information from the ledgers in the Bank of England Archive, and to a smaller extent on contemporary press reports, provides new information on the actions of the Bank (as the Bank of England will be referred to from now, in line with 19th century usage) at the height of that crisis. It turns out that much that has been published is incorrect, and even when correct, lacks detail. The fuller picture presented here serves to clarify some famous passages that are often cited without much context or sufficient explanation. This work also serves to illuminate how slight was the interaction of actual banking practice and more theoretical economic thought.

As an example of frequent lack of understanding of the events of 1825, let us consider Walter Bagehot. He is widely cited as an authority and inspiration for modern central bankers for his exposition of the LOLR role in his 1873 book *Lombard Street* [5]. Reviewing banking history in his book, Bagehot thought that the financial crises before 1825 were not really relevant for evaluating LOLR operations, since they had occurred in very different financial environments ([5], p. 199). As for the crisis of 1825 (which peaked a few weeks

¹ A concise definition of LOLR that will suffice for us is that it is "[q]uite simply, a lender of last resort is an institution willing to extend credit when no one else will" ([16], front matter). A comprehensive overview of the huge literature on LOLR, as of two decades ago, at least, as there has been much more written on the subject since, is provided in [16,26].

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before his birth), he agreed with the universal view of his time, namely that the Bank prevented a catastrophic collapse. (One of the most influential economic policy thinkers and policy makers of the first quarter of the 19th century declared two months after the crisis that it was indeed the Bank that saved the day, and if it had not been for its intervention, in another 48 hours Britain would have been reduced to a "state of barter"².) Bagehot wrote ([5], pp. 200–201) that

[t]he success of [the Bank in 1825] was owing to its complete adoption of right principles. The Bank adopted these principles very late; but when it adopted them it adopted them completely. . . . And for the complete and courageous adoption of this policy at the last moment the directors of the Bank of England at that time deserve great praise, for the subject was then less understood even than it is now; but the directors of the Bank deserve also severe censure, for previously choosing a contrary policy; for being reluctant to adopt the new one; and for at last adopting it only at the request of, and upon a joint responsibility with, the Executive Government.

Much of this is incorrect, or at least highly questionable. Evidence suggests that the government had little influence on the steps that the Bank took. And those steps did not involve the "complete adoption of right principles," at least not if we think of "right principles" as consisting of what are today called Bagehot's three rules for LOLR. This paper shows that the third Bagehot rule (about solid collateral) was followed only partly, and the other two were not.

The investment mania of 1824–25 peaked in early 1825, and was followed by rising tension in markets that culminated in the eruption of the most intense phase of the crisis on Monday morning, 12 December 1825. That is when the failure of the Pole, Thornton bank led to a panic³. It was one of the largest banks, was very highly regarded, and it was the London agent of over 40 country banks, so in modern terms it might be called "systemically important." (A corrected account of the Bank's loans to Pole, Thornton is presented in Section 7. Those dealings, abortive attempts to keep that bank afloat, started much earlier than is claimed in all published accounts.)

John Baker Richards, who had been the Deputy Governor of the Bank during that period, testified in 1832 that "on Monday morning the storm began, and till Saturday night it raged with an intensity that it is impossible for me to describe: on the Saturday night it had somewhat abated" ([83], Q. 5006). The first few days of the following week were also ones of disturbed markets, but by the end of that week the threat of a catastrophe had receded, at least as far as the London financial scene was concerned⁴.

² This was William Huskisson, the President of the Board of Trade, speaking in the House of Commons (*The Times*, 11 February 1826, p. 3). He was involved in all the high-level government deliberations during the crisis. His very quotable claim has been quoted innumerable times, but it is almost surely a substantial exaggeration, as was recognized, for example, by a serious contemporary economist, Thomas Tooke ([75], vol. 2, pp. 185–86).

³ More fully, it was the Pole, Thornton, Free, Down & Scott bank, but in in contemporary press it was often referred to as Sir Peter Pole's bank. It had been controlled by the famous Henry Thornton until his death in 1815

⁴ There continued a long series of banking and business failures in the country, leading to a long and deep depression. The Bank was pushed into new ventures by the government in that period, including the novel step of lending on goods. But that is outside the scope of this paper.

Table 1. The two main liquidity provision methods employed by the Bank of England during the peak of the panic of 1825, in thousands of pounds sterling. The most intense part of the crisis was during the week of 12 December. By contrast, a year earlier, during the week of 13 December 1824, discounts amounted to just £491 thousand, while during the week of 13 June 1825, they were £913 thousand. Data drawn from ledger ADM7/41 in the Bank of England Archive.

period	discounts	advances	other
		on stock	advances
week of 5 Dec.	1,916	-	=
week of 12 Dec.	5,977	1,430	476
week of 19 Dec.	2,623	141	134
Fri., 9 Dec.	294	-	_
Sat., 10 Dec.	378	-	-
Mon., 12 Dec.	1,265	95	
Tue., 13 Dec.	542	147	113
Wed., 14 Dec.	1,049	496	249
Thu., 15 Dec.	2,054	510	25
Fri., 16 Dec.	379	156	40
Sat., 17 Dec.	688	26	50

Jeremiah Harman was a Bank director from 1794 to 1827 (with some gaps), and was Governor from 1816 to 1818. During the 1832 Bank Charter Committee hearings, he explained the great lengths to which the Bank went to keep the British financial system afloat during the 1825 crisis, in a passage that has been cited innumerable times ([83], Q. 2217):

We lent it by every possible means, and in modes that we never had adopted before; we took in stock as security, we purchased exchequer bills, we made advances on exchequer bills, we not only discounted outright, but we made advances on deposit of bills of exchange to an immense amount; in short by every possible means consistent with the safety of the Bank; and we were not upon some occasions over nice; seeing the dreadful state in which the public were, we rendered every assistance in our power.

The meaning of terms such as "[taking] in stock as security" will be explained in Section 2, something that is missing in most accounts of that crisis. As far as the public was concerned, these steps were a drastic innovation, violating accepted principles of banking. What neither Harman nor any modern writer has done was to present a detailed accounting of how much assistance was provided by the Bank, and exactly when. Filling that gap is one of the functions of this paper, and a summary of the key figures is in Table 1.

Contemporary press accounts, see Section 8, agree that the tide starting turning with the Bank making more money available on Wednesday, 14 December. Almost a decade later, two people, Thomas Joplin and Vincent Stuckey, claimed credit for what they claimed was sudden change in Bank's activities on that Wednesday. Table 1, which is one of the main contributions of this paper, shows the extent of the Bank's support for the markets. It demonstrates that the Bank started pouring money into the markets already on Monday, as

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soon as the panic erupted. Further, even though the public learned that the unprecedented "advances" (to be explained in Section 2, and ones that encompassed "[taking] in stock as security") were being made on Wednesday, they started being implemented surreptitiously already on Monday, and were based on some earlier dealings that were not public.

This paper also provides additional (but this time not completely conclusive) information about some other colorful aspects of the Bank's actions. For example, another frequently cited claim by Harman during those 1832 hearings concerned the role of £1 notes. He said ([83], QQ. 2232–34) that issuing them "worked wonders; and it was by great good luck that we had the means of doing it, because one box, containing a quantity of [£1] notes, had been overlooked, and they were forthcoming at the lucky moment," and that "it saved the credit of the country." Harman did not specify when those notes were found or issued, and some scholars have doubted the story about a forgotten box of £1 notes ([21], p. 114). As will be shown in Section 8, there is some support for this story, based on contemporary press accounts. That section also provides more details about Nathan Mayer Rothschild coming to the Bank's assistance with a large supply of gold coins from France, where there continues to be some uncertainty as to whether this really took place, cf. ([39], p. 121). It is also explained there why finding those notes and obtaining those coins mattered. They appear to have been of nontrivial assistance in mitigating the dangers, but their volume was not very large compared to the total assistance provided by the Bank. Hence, contrary to some claims in the literature, they were probably not crucial.

The concrete information about Bank's actions in the runup and during the peak of the crisis of 1825 also sheds some light on the interaction between economic theory and banking practice, although the resulting views remain murky since motivations for group decisions can seldom be determined with any certitude. As was noted over a century ago by Foxwell⁵:

The fact is that the Bank of England, like most really English institutions, was case-made; it owed its form and functions not to systematic planning, but to attempts to meet emergencies as they from time to time arose.

Not only that, we have very little documentation on many important decisions by Bank directors, and practically none on those during the 1825 crisis. The Duffy paper [19] makes some excellent observations on this point⁶. He wrote, of the many interpretations of Bank actions that had been published, that

the hypothetical and conflicting character of these explanations is attributable to the scarcity of concrete information about the Bank's internal affairs. The traditional source is the evasive and sometimes apparently inconsistent testimony of a small number of directors before parliamentary committees of inquiry in 1804, 1810, 1819, and 1832.

Duffy also observed that "... the Court [of Directors] rarely, if ever, discussed monetary theory with a view to establishing an official doctrine; discount policy was determined by

⁵ [55], in Introduction by H. S. Foxwell, p. 6.

⁶ Although the Duffy paper is about the Restriction Period, 1797–1821, when gold payments were suspended, his general observations apply to all of the 1820s and even beyond.

majority decision of all the directors, who expressed and voted according to disparate criteria." As will be discussed later, the directors were selected from the mercantile classes, did not make public statements of their views or actions, and only a handful ever published anything (and when they did, it was often in advocacy pieces). Thus, even with the contributions of Duffy [19], we are still left uncertain as to the extent to which various directors were guided by theories such as the "real bills doctrine." They were certainly aware of the economic thought of the times, as they read the papers and pamphlets that were published and paid attention to debates in Parliament, which often dealt with monetary affairs. They also had to listen to their investors at stockholder meetings, among whom Ricardo was among the most vociferous and critical⁷. But, as the results of this paper reinforce, the connection between theory and practice was rather tenuous. For example, as will be mentioned, a serious recurring problem that Ricardo emphasized in 1816 and continued harping on in 1824 [59,60] (although it had been present and was obvious much earlier) was not solved by the Bank until 1829. This despite the fact that the solution was profitable for the Bank, and in fact relied on the "advances" technique that was universally regarded as crucial in solving the crisis of 1825.

Existing literature sometimes gives credit to Joplin and Stuckey for spurring the Bank to provide the liquidity that alleviated the panic. If that were so, we would have a nice illustration of novel outside ideas inducing a productive quantum leap in a slow-moving, old-fashioned institution. However, as was mentioned above, Joplin and Stuckey were claiming credit for what they thought (after the fact) was a change of policy by the Bank on Wednesday, whereas the Bank started implementing those moves already on the preceding Monday.

It is standard in the literature for authors to present the Bank as being reluctant to assume the LOLR role (e.g. [31], p. 121). Some argue that this did not happen until the last quarter of the 19th century. The contrary argument, which has been made before, is supported by this paper. The behavior of the Bank even before the 1825 crisis shows that it was run more as a public utility than a profit-maximizing venture. In fact, David Ricardo excoriated the Bank directors for putting the public good over that of their stockholders. He anticipated Milton Friedman by a century and a half in claiming that "[i]t was [the directors' duty to attend to the business and promote the interests of the Bank proprietors ... [instead of] throw[ing] away a million here and a million there, for the purposes, as it appeared, of protecting the public" (see full quote in Section 12). A substantial part of this paper is devoted to investigating one aspect of this issue that may help explain why the directors attracted Ricardo's ire. This aspect has not been considered at all in modern literature. Henry Thornton and Thomas Joplin understood it, and wrote about it, but Bagehot failed to grasp it. It turns out that Bank directors had small financial stakes in the Bank, as opposed to large stakes in their private businesses. So their personal incentives were aligned more closely with keeping the British financial system stable than with maximizing Bank profits. The separation of ownership and control at the Bank meant they were able to ignore for demands for greater profits from stockholders such as Ricardo.

⁷ They also had family connections to some notable theoreticians. Henry Thornton's older brother, Samuel, was a director of the Bank for most of the period from 1780 to 1836.

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The scope of this paper is fairly narrow. It presents new evidence on the events at the height of the crisis, and on how directors' investments may have influenced their LOLR decision. Nothing is said of the broader questions, such as what led to the crisis, or how it influenced British monetary and banking policies for decades afterwards. There is a large literature on these topics, as the 1825 crisis was extremely important. It "mystified contemporaries" ([32], p. 202), as it was an endogenous financial crisis, not caused by warnings of war, nor by a bad harvest. It also resulted in a major depression, and it brought out the fragility of the British financial system. Hence it led to many government reforms, such as introduction of joint-stock banking to England soon after, and many more far-reaching reforms, as, for example, it heavily influenced the debates that led to the Bank Charter Act of 1844. This crisis also induced changes by private enterprises, such as the rise of discount houses. A general overview, with a large list of relevant references, is provided by Neal [47]. Some of the works on this that can be cited include the accounts of a contemporary, Tooke [74,75], and many more modern books, such as [1,17,21,32,36,39,77]. The Fetter and Hilton books [21,32] in particular provide extensive coverage of the 1825 crisis, and include contemporary descriptions of the deliberations inside the government, something that this paper does not touch.

None of those higher-level issues are addressed here. On the other hand, many new results are presented, such as the likely influence of directors' personal business interests on Bank policies, or the degree to which the Bagehot rules were followed by the Bank, or how the Bank refused profitable opportunities because of contemporary business norms. The exact timing and sizes of the Bank's action at the height of the crisis, shown in Table 1, is new, and helps put in proper perspective the contributions of Joplin and Stuckey. The Bank's assistance to the Pole, Thornton bank before the panic is frequently cited in the literature, but those citations are uniformly wrong as to timing and extent, as this paper shows. In general, all of the books cited above contain some errors in their coverage of the 1825 crisis. The corrections to those mistakes (far too many to enumerate in detail) do not require great changes in any major theses of those works, but do suggest in some cases slight modifications. Of the papers that are about that crisis, or to a substantial extent devoted to it, such as [23,33,65], that of Sissoko [65] has the greatest overlap with this one, and is relatively error-free, but does not present any of the details mentioned in the previous paragraph or this one.

The main source for the new information published here are transaction histories of various government securities that are available in Bank ledgers. They appear to have been almost completely neglected in this context by previous scholars.

Some information is also provided from contemporary press accounts. They are explored here in more depth than has been done by previous researchers. This is done to obtain a view of the financial crisis from the standpoint of investors and finance professionals not privy to the Bank's workings. That provides interesting contrasts with the actual proceedings of the Bank.

⁸ The papers of Duffy and Sissoko [19,66] have much less overlap with this one, but are good supplements, as they contain a wealth of information about the Bank's operations shortly before the 1825 crisis.

Section 2 provides some background about the British economy and finances. The next section discusses the monetary scene of 1825, and the various types of money in the market. Section 4 presents some of the most relevant facts about the Bank and British banking in general around 1825. Section 5 shows the missed opportunities, the cases where the Bank could have made easy profits but did not, and what this says about the business norms of that era that constrained it. Section 6 has a short overview of the Bank's early LOLR actions. The following section sketches the Bank's involvement with the Pole, Thornton bank in the runup to the crisis. Section 8 outlines the view of the crisis as seen by readers of the contemporary press, and the ways this view differed from reality. The next section describes the Joplin and Stuckey actions during the crisis, and their claims to credit for helping resolve it. Section 10 describes the Bank's early experiences in dealing with stock, and with advances. Section 11 documents the degree to which the Bank's loans in the 1825 crisis met Bagehot's criterion that a LOLR should lend only on "good security." The next three sections discuss the Bank directors, their investments in the Bank and other businesses, and how that reflected their actions as directors. (The last of those three sections is about Henry Thornton's views in this area, which have some puzzling aspects.) Finally, there is a conclusions section.

2 Some background remarks and notation

A few points may be worth clarifying for the benefit of readers who are not experts on the British financial scene of the early 19th century. Also, it is worth recalling some salient statistics about the British economy and financial system, to better appreciate the scale of LOLR operations by the Bank in December 1825.

Comparison of prices and earnings across two centuries is complicated. However, in the 1820s, the per capita GDP in Britain⁹ was around £20. Comparing this to modern data suggests that to obtain a rough sense of what figures from that time might mean in the present environment, it is not unreasonable to multiply those figures by 1,000, so an investment of £4,000 in 1825 can be compared to £4 million, \$4 million, or \in 4 million today. Relying on cost of living indices might lead to 1,000 being replaced by 100 or so¹⁰.

The GDP of Britain was around £500 million, and national debt was roughly £800 million. Taxation brought in about £60 million per year, and about half of that, £30 million, went to pay just the interest on the debt. Almost all of that debt was in "perpetual" securities, which did not have to be repaid at any given time, but could be redeemed at par value by the government. Consols, the most famous of them, formed about half of the debt. But there was also short-term debt, mostly in the form of one-year Exchequer Bills, which in the mid-1820s ranged from £30 to £40 million.

The role of Exchequer Bills as "near money" will be discussed in Section 3. It should be remembered that bills of exchange also had many of the qualities of money, and were often

⁹ In this paper, Britain will be used loosely, to cover all of the United Kingdom of that time, which included all of Ireland. But Ireland and Scotland had somewhat different institutions, and Ireland even had its own currency until early 1826.

¹⁰ For gold enthusiasts, we can note that an ounce of gold was worth about £4 in 1825, while over the decade ending in 2025, it varied roughly between £1,000 and £3,000, suggesting multiples in the range of 250 to 750.

used in that role. It appears that around 1825, there were typically around £70 million of them outstanding at any time¹¹.

As for "hard money," gold payments resumed in 1821, and the Royal Mint coined £32 million in gold in the years 1817 through 1825, so, allowing for melting and export, there was likely on the order of £25 million in gold coins in 1825 in Britain [84]. Somewhat less "hard" were Bank of England notes¹². Their circulation in mid-1820s tended to run to about £20 million. They amounted to £17.5 million on 25 November of 1825, and to £25.7 million on 30 December, the result of the Bank's LOLR operations ([83], Appendix 6).

The major unknown, and a subject of extensive discussions and disputes, was the paper money issued by the country banks. There was an estimate produced by James Sedgwick of the Stamp Office that in 1825 this money amounted to £14.1 million, but this was questioned ([83], Q2362 and Q5484), and a more plausible figure might be around £10 million.

The language of banking has changed to some extent, which can lead to confusion. In modern times (putting aside very recent inventions such as Quantitative Easing), central banks have provided assistance to financial institutions primarily through what is called the "discount window." This involved lending money on solid collateral. In the 19th century, the Bank of England gave out money to customers primarily by two techniques. One was by way of "advances," which is just like the usual discount window lending of modern times, with collateral that was transferred to the Bank but was to be returned to the borrower when the loan was repaid. As far as the public knew, this method was pioneered during the crisis of 1825, was abandoned afterwards, and then brought back and grew in size. The main method used by the Bank to provide liquidity was by "discounting," which is quite different from the modern "discount window." It consisted of purchasing bills of exchange¹³, at a discount that reflected the interest rate being charged. Those became the property of the Bank, which held onto them until they matured¹⁴.

The Bank of England, as well as the South Sea Company, and the East India Company, the other two "moneyed" companies, did not have shares. They had "stock," which was a book-entry security, with records maintained by the respective company. Prices were universally quoted for units of 100 "stock," representing par value of £100, the amount that notionally had been invested by stock holders. In the mid-1820s, the price of Bank Stock tended to be on the order of 200^{15} , so that a director's minimum holding, to be

¹¹ This is just for inland bills, based on Leatham's figure for annual volume in 1825 in Table 4 and Newmarch's figure for average usance for 1849 in Table 5, both tables in [48]. That book explains the great uncertainties about all these estimates.

¹² There were also paper banknotes of the banks of Ireland and Scotland, but it seems safe to ignore them, as they did not circulate much in England. Neither Ireland nor Scotland experienced a financial crisis in that period.

¹³ The category of bills of exchange will in this paper also encompass promissory notes. They were grouped together in Bank accounts, typically listed as "bills and notes." They functioned in essentially the same way, and there was only a small technical difference between them. The Bank discounted comparable volumes of each in the mid-1820s.

¹⁴ As with all bills of exchange, anyone who had owned a bill of exchange or a promissory note at any time could be held liable if the drawee did not pay.

¹⁵ To be more precise, it varied from about 200 to about 240. It was around 240 at the beginning of 1825 at the peak of the investment mania, and was mostly in the neighborhood of 200 in the runup to and after the crisis at the end of 1825.

discussed in more detail later, required ownership of 2,000 of Bank Stock. That cost about £4,000, which, as mentioned above, can be compared to €4 million today. "Stock" was also used to refer to British government bonds, such as the famous Consols.

A serious constraints on LOLR operations was posed by usury laws, which limited interest rates to 5% per year. Bagehot's rules are (in commonly used phrasing) that in a crisis, a LOLR should

- lend freely
- at a high rate of interest
- on good security

With the limit of 5% imposed by law, the Bank could not lend at high interest rates, and therefore could not lend freely. (There were ways to get around that limit, as will be mentioned later, but they were not used by the Bank, most likely because of the severe criticism they would have caused.) Thus it is not a surprise that the Bank did not observe the first two Bagehot rules. The constraints these interest rate limits caused in the 1825 crisis led to their being relaxed in 1833, although at that time in a way that provided relief primarily to banks¹⁶.

Since the Bank had to ration credit, it failed one of the main criteria that are typically associated with LOLR, namely that of provision of funds to any applicant with high quality collateral. Unfortunately we do not have any information on the criteria that were used, with only a few hints about operations in the crisis of 1825 being available in the press.

There are claims in the literature that a key to the successful LORL actions of the Bank in 19th century Britain was the reliance of the system on anonymity in transacting with bills of exchange. These claims have been made most prominently by F. Capie [14,15], but have also been echoed by others, cf. [12]. However, such claims are contrary to evidence. Bills of exchange were about as far from anonymous as one can imagine. Names of all the parties that ever had any involvement in a particular bill were given on its back. Further, we know that the Bank scrutinized bills and notes very carefully, and had varying credit limits for different discounters¹⁷. into the purposes of the loan.

A substantial contributing factor to the severity of the panic of 1825 was the time it occurred, mid-December. This was always a period of pressure in the money market, since funds were being accumulated for the payment on 5 January of interest on many government securities. And those payments were huge, about £9 million in an economy with a GDP on the order of £500 million per year [9]. (This issue will come up again in Section 5.) There were contributing difficulties caused by awkward procedures at the Bank. In preparation for the 5 January 1826 payment on Consols, transfers on it were suspended from 2 December to 7 January, which was called the "shutting of the books" ¹⁸. So the only

The 1833 law permitted higher rates on bills of exchange. Usury limits, which were solidly established and had wide support were surely the reason that Thornton did not advocate for high rates in his LOLR prescriptions [71]. Thornton was well aware of the instabilities that usury laws led to in the financial system ([76], p. 33).

¹⁷ See [66]. Also, Anson et al. [4] provide quantitative evidence on the Bank discriminating among applicants for credit during the crisis of 1847.

¹⁸ All the "stock" was in book-entry form, there were no certificates. Trades could take place anywhere and anytime, not necessarily at the London Stock Exchange. But ownership could only be changed by going to the Bank during the days and hours that transfer offices for a given security were open.

trading that was formally possible during this period was "for account," meaning futures trading to be settled on 19 January¹⁹.

Much of the information underlying the claims of this paper comes from the ledgers that detail holdings of various types of "stock." They are held in the Bank of England Archive. The notation AC27/513:89 will denote p. 89 of ledger $AC27/513^{20}$.

Particularly important for the investigation of this paper is ADM7/41, denoted in the Bank Archive catalog as "Banking Department General Ledger No. 19, 1816.03.01 -1828.02.29," and (on the spine of the bound volume, as well as in original Bank terminology, which appears in some of the literature) as "General Ledger No. 19." Clapham [17] consulted this ledger for his study, but lightly, and most investigations of the 1825 crisis have neglected this resource. As it turns out, it provides a wealth of information on the Bank's actions in that event that is not available any place else. The data for discounts in 1824 in Table 1 comes from ADM7/41:301, that for 1825 from ADM7/41:313 and ADM7/41:325. The figures for advances were collected from ADM7/41, pages 516, 759, 760, 783, 786, 802, and 913–923. The scattered pages likely reflects the novel nature of the transactions, which initially apparently were not expected to be extensive, and so were inserted where a bit of free space was available in the ledger. Only advances (and discounts) made during the stated periods are counted, there are no deductions for the (slight) repayments that took place in this period²¹. Some judgment had to be exercised. For example, some advances were collaterized by both stock and bills of exchange, and there decisions as to how much to allocate to stock versus non-stock advances were made based on the margin normally applied for stock advances, which is described in Section 11. Another of the examples where a classification decision had to be made was in the case of the merchants Warre Brothers, ADM7/41:561. They had two advances backed by bills of exchange, one taken out 15 November 1825, the other on 15 December. Only the second one was counted among the non-stock advances in Table 1.

CoD Minutes will refer to the minutes of the Bank's Court of Directors (the governing body). They are available online on the Bank Archive website.

Prices of various securities were taken from the *Course of the Exchange*, except in cases where a particular newspaper source is cited.

3 What is money?

The 1825 crisis and the debates about banking that it led produced many interesting observations that are of relevance even today, in particular because they demonstrate that monetary policy is more a matter of applied psychology than of quantitative science. For example, during the 1832 Bank Charter hearings (in which much of the questioning was inspired by the events of 1825), one of the directors of the Bank was asked ([83], Q5021):

¹⁹ Similar restrictions applied to the other "stocks" that had interest payments due on 5 January, but the dates their transfers books were "shut" differed, and in general they did not have official futures trading.

That particular ledger has records of holdings of Bank Stock from October 1815 to October 1831 for investors with last names starting with letters A through C.

²¹ Similarly there is no deduction for bills and notes that were collected on, which, though routine, reflecting discounting many weeks earlier, was much larger, amounting to £931,468 during the week of 12 December 1825.

Is there not this difference between Banking and other business, that it is a principle of Banking, that a man shall issue promises which it is universally known by the takers of those promises that he cannot fulfil, if they are all to be called for at the same time?

This is a very succinct expression of the basic fact that banking is based on a polite fiction. At a deeper level, of course, it can be phrased as an expression of the faith that statistics will operate even when faced with crowd psychology, and "tail events" will not occur too often, with bank runs infrequent enough to enable the economy to operate.

Another pithy observation came out of the 1825 events, and points out the essence of what a LORL or a modern central bank should do in a financial crash. Joplin wrote about what he claimed were the errors committed by the Bank in the 1825 crisis²²:

It was not perceived that a demand for money in ordinary times, and a demand for it in periods of panic, are diametrically different. The one demand is for money to be put into circulation; the other, for money to be taken out of it.

In modern times this would be phrased in terms of changes in velocity of money, but Joplin's pithy phrasing is easier to understand for non-specialists.

By the 1820s, Britain²³ was officially on the gold standard, with the £1 coin, the sovereign, minted since 1817. Bank notes, both of the Bank of England, and of other banks, were not legal tender (and those of the Bank only attained that status in 1833). An interesting question that has not been fully explored is how the public accepted the various types of money or near-money. For example, Vincent Stuckey in his letter to be discussed later claimed that only small banknotes were needed in the country. However, when the Bank sent £1 and £2 notes to country banks, some came back and were turned in for sovereigns. While the Bank issued £288 thousand in gold coins in November 1825, the next month the corresponding sum ballooned to £1.815 million ([83], Appendix 76). This was a fraction of the over £10 million in discounts and advances that month, but it was a sizable fraction, comparable in size to the advances, and far more than the small notes and the sovereigns delivered by Rothschild. This shows that Bank notes were not trusted quite as much as gold.

Particularly interesting is the case of Exchequer Bills. These were instruments payable to the bearer, so we have very little information on who owned them, or how often they moved from hand to hand. They were issued for about a year, and most of the time were renewed by holders at their expiration. In the 1793 and 1811 financial crises, the government acted as LOLR by issuing Exchequer Bills, and made profits in both cases [79,82]. But in the 1825 crisis, these instruments fell into discredit, as somehow the populace did not trust them the way they had in 1793 and 1811.

Governments were eager to maintain the price of Exchequer Bills above par, as that served to keep investors from demanding cash for them on expiration, which would cause

 $^{^{22}}$ In ([34], p. 21), a pamphlet that will be discussed at some length Section 9.

²³ In this paper, Britain will be used loosely, to cover all of the United Kingdom of that time, which included all of Ireland. But Ireland and Scotland had somewhat different institutions, and Ireland even had its own currency until the start of 1826.

a major embarrassment if done on a large scale. In early 1825, even though they only paid 2.28% interest per year, they traded at remarkably high premiums to their par value. On 7 April 1825, a transaction was recorded at 3.4% over par, and in that period many deals were done at prices almost as high. Such prices could be regarded as irrational, since any purchaser was bound to lose if at the expiration of a purchased bill the government simply paid it off at its par value²⁴. During the crisis, though, Exchequer Bills fell to large discounts, and on Tuesday, 20 December 1825, both The Times and Course of the Exchange reported at least one transaction at 4.25% under par, and several at 4% under par²⁵. Unfortunately we do not have enough information about the Exchequer Bills market to tell precisely what happened²⁶. However, this market seems not to have functioned well. Some Exchequer Bills could be used at par value in payment of taxes. Which ones qualified was subject to rather arcane rules, but between mid-October 1825 and the end of the year, £7.4 million were in that category. However, only £284 thousand, or 4\%, were used in that way [81]. Given the high taxation rate, why didn't taxpayers (who included importers who faced generally very high tariff rates, and had to make payments on an ongoing basis, not just periodically) scoop up these bills that were at a discount and save on their taxes? Apparently this already puzzled some MPs right after the crisis, as the Blue Book [81] was unusual in presenting this information, which was not normally reported.

The malfunctioning of the Exchequer Bills market leads to an important issue, namely the Bank's failure to make high profits by a method that would have helped alleviate the ongoing crisis. That is considered in the next two sections.

4 Bank of England and British banking in 1825

The Bank in 1825 was far from what central banks are today. Of course, these modern central banks are far from what they were even half a century ago. Hawtrey, writing in 1932, said that "[a] central bank if a banker's bank," dealing only with other banks ([31], p. 116). In recent years, starting with the Bank of Japan, and then spreading elsewhere after the Global Financial Crisis of 2007–2008, central banks have become guardians of

²⁴ In mid-1820s, the prospects of the government paying off Exchequer Bills might have been seen as remote, given their volume. But it was not out of the question, as sometimes Exchequer Bills were "funded," meaning exchanged for "perpetual" annuities such as Consols. Similar seeming overvaluation phenomena were observed in later times too, when prospects of the government just paying these bills off were not just higher, but did happen. For example, the *Economist* of 19 February 1853, p. 205 noted that that Exchequer Bills had been trading at a premium to their par value greater than a full year's interest they could bring, and when interest rates on them were reduced, there were substantial losses to holders. Obviously in 1825 and 1853 the use value of these instruments likely contributed to making them trade at prices higher than fundamentals could justify, but the precise causation is hard to determine.

²⁵ The claim of a 15% discount in ([65], p. 15) is incorrect. It is based on a misreading of ([83], Appendix 65). Prices were reported in terms of premium or discount in shillings for £100 of par value of Exchequer Bills.

For example, prices quoted in the *Course of the Exchange* and newspapers often distinguished between bills of different sizes, but only under exceptional circumstances by their issue dates. There was also a complication in that approximately £3 million of Exchequer Bills matured on 19 December, and the mechanics of renewing or cashing them in likely caused additional problems. (Of the £3.2 million that were maturing on that day, 66% were cashed in, whereas on the previous occasion, at the end of September, just 6% of the £13 million of expiring bills were cashed in [81].)

high asset valuations [43]. They are able to do it as they are agents of governments, with ability to general to generate enormous amounts of money, backed by the taxation powers.

In 1825, the Bank was very far that kind of position. It was a private institution, although it had special ties to the British government. But it was certainly at the apex of the British financial system. There were also 70 other banks in London [57], and something around 660 country banks²⁷. But the Bank towered over them all in terms of assets (which was no longer true at the end of the 19th century). Its ties to the government included interest-free deposits in accounts of various departments, and a flow of £900 thousand in interest each year²⁸. Thus there could be little doubt of the solvency of the Bank. It was only liquidity, and in particular the ability to produce gold on demand to exchange for paper notes, that was an issue.

In the crisis of 1825, the Bank did come close to being unable to pay (and, as will be mentioned later, in some instances was not able to produce the form of payment that was desired). So its actions were indeed quite risky.

There is a famous quote of Adam Smith, that the Bank "acts, not only as an ordinary bank, but as a great engine of state" ²⁹, and many books and papers about the Bank are concerned largely with its relations to the government. (A nice example is the title of [55]. See also [51].) But the motivation of the creators of the Bank was to promote commerce, and the services and loans that the Bank provided to the state were the price of being allowed to function and keep various privileges. That was still the general opinion in the 19th century, and just about the only approved transactions for the Bank involved discounting. As an example, at the end of 1824, a letter to The Times claimed that "[t]he Bank [of England was instituted for the purpose of discounting [bills of exchange]," and criticized it for lending on mortgages and stock, and especially strongly for its acquisition of the Deadweight Annuity³⁰. Shortly after the 1825 crisis, J. R. McCulloch, a very prominent economist of that period, castigated lending on mortgage, which, he claimed, "as every one knows, was quite inconsistent with every sound principle of banking" ([41], p. 276). Dealings in stock were not regarded as acceptable, and during his testimony to the 1832 Bank Charter committee, John Horsley Palmer, at that time the Governor, and historically one of the most important directors of the Bank, declared that the Bank was "not in the habit of buying and selling stock" and possessed only a modest amount bought in the previous couple of years ([83], Q. 166–167). As late as the 1850s, Gilbart, a widely respected banker and writer on banking, wrote that "[i]t is not deemed creditable for a

²⁷ [56], p. 116. This count, like the rest of this paper, ignores banks in Ireland and Scotland.

This is just interest on long-term securities. There was also over £200 thousand in interest on Exchequer Bills. Of the £900 thousand, half was the 3% interest on the basic capital of £14.6 million that was lent in perpetuity to the government. The other half was payment on the Deadweight Annuity, a 44-year term annuity acquired in 1823, to great controversy. This last instrument is cited in some, but not all, discussions of what led to the monetary ease that helped power the investment mania of 1824–25. The Bank was still paying for it in the runup to the crisis of 1825, with £1.1 million paid in each of January and July 1825, and January 1826 [80], so it was making a substantial impact on the monetary situation of the period.

²⁹ [68], vol. 1, p. 387.

The Times, 20 December 1824, p. 2. This was a letter from Richard Page, writing under the pseudonym of Daniel Hardcastle. Page at that time was a jobber on the London Stock Exchange, and over several decades he contributed over 60 letters to *The Times* on finance. Discounting brought in the vast majority of the Bank's revenues from commercial activities.

bank to speculate in [stocks], or to buy and sell [stocks] frequently, with a view of making a profit by the difference of price" ([25], vol. 1, p. 67).

The conviction that discounting was the only proper commercial activity for the Bank persisted for a long time. As late as 1838, the financial column of *The Times* castigated the Bank for allowing a variety of securities other than bills of exchange as collateral for the quarterly advances during the dividend season (which will be described in the next section). It thundered that "the sober system of banking, into which a careful consideration of all their responsibility to the public, after a long struggle, brought the directors, is to be abandoned for that which experience has shown to be the fruitful source of over-issues and panic, with the train of disasters to the trading classes which inevitably follows them"³¹.

With time, attitudes changed, and by the 1860s, advances at the Bank were not just routine, but comparable in size to discounts, and eventually the Bank started to influence the money market by operations on stocks³². However, in the 1820s, the norms were different, and led the Bank to forego easy profits. It also meant that the advances of December 1825, which involved a variety of financial instruments as collateral, were a dramatic break with accepted norms of banking.

However, it should be mentioned that there were some precedents for the Bank engaging in commercial transactions other than discounting. There was a grab-bag category of "private loans." In the early 1820s, the largest of these were to the East India Company and to Nathan Mayer Rothschild, and they will be mentioned in Section 10. Some "private loans" were secured with financial instruments as collateral, and so were in essence "advances." Many were secured by the borrower arranging a group of "respectable" merchants or financiers to be the "security" for the loan by guaranteeing payment. These private loans were arranged privately, sometimes being discussed by the Committee of Treasury and then the full Court of Directors. They were not visible to the public, and were clearly not suitable for LOLR activities, requiring too much negotiation and deliberation to arrange³³. But they may have prepared the Bank directors and Bank clerks for large-scale dealings in advances that they engaged in at the height of the crisis of 1825.

5 Bank of England and its neglect of potential profits

The huge mispricings at the height of the crisis were caused by desperate seekers for cash. Hence they offered potentially huge rewards to those with cash. And the institution that had the most cash, and was ideally situated to benefit from these mispricings, was the Bank. But it did very little of that. We first consider its dealings in Exchequer Bills.

The Bank was intimately familiar with Exchequer Bills. It was in fact by far the largest holder of them, with the £12.9 million that it held in mid-1825³⁴ forming its main moderately liquid investment. The interest on them, 2.28% per year, was lower than what could

³¹ The Times, 30 November 1838, p. 5.

³² The London Stock Exchange was a major, but seldom discussed, actor in the money market, cf. [53].

³³ As usual, one can quibble here. For example, the Bank also had an institutionalized system of lending to subscribers to the large government loans ([17], vol. 1, pp. 203–204). These were also classified as private loans, although they were systematic and widely known and used.

³⁴ Similar amounts were on its books for some years before and after, cf. [83], Appendix 68.

be earned by discounting bills of exchange. What we do know is that (aside from renewals of expiring bills), the Bank sold £259 thousand and bought £700 thousand (par value) of them in the 4th quarter of 1825, with the average purchase and sale prices only a bit under par in both cases ([83], Appendix 65). Unfortunately no account has been found so far of the Bank's transactions in this instrument on a daily basis. But we do have some information about the peak of the crisis.

A letter from the Prime Minister and the Chancellor of the Exchequer to the Bank directors, dated Tuesday, 13 December, noted that they had been informed the Bank was already planning to purchase £200 thousand of Exchequer Bills. This letter basically requested them to increase that to £500 thousand. It provided a guarantee that if the Bank needed it, the government would redeem the entire £500 thousand for cash ([83], Appendix 4). The directors agreed to this request at their meeting of that same day³⁵. There were some press reports over the next few days of the Bank purchasing these instruments, often with exaggerated amounts, and observers claimed this helped support their prices³⁶.

Why did the Bank directors need any pleadings and guarantees by the government to go beyond the planned £200 thousand limit? Exchequer Bills offered an extremely lucrative profit opportunity. Starting on Monday, 12 December, almost all prices for Exchequer Bills that were recorded in the Course of the Exchange that week were at least 1.5% under par, and very often 2% or 3% under par. Exchequer Bills were roughly at par by the end of that month, and consistently above par in January. So purchasing them during the crisis week would have given a capital gain of at least 1.5%, and likely twice that, in about two weeks (in addition to the interest, which was raised for all these bills from 2.28% to 3.04% starting 20 December). Even if one did not expect those prices to recover that quickly, if the purchased bills were of the dates to be redeemed in March 1826, just the capital gain would have provided approximately 6% at an annual rate, so the total return would have been at 9% per year. Far superior to the 5% to be obtained from discounts and advances. Yet the Bank did not exploit this opportunity by reducing its discounts and increasing its purchase of Exchequer Bills. Note that both methods served just as well to relieve the shortage of cash in the markets.

There were similar opportunities in the mispricings of stock. Table 1 shows all advances being drastically curtailed by the end of the week of 12 December. As usual, there was no official announcement, and no justification for this move. The Saturday, 17 December financial column in *The Times* deduced that on Friday, the Bank "found it advisable . . . in consequence of the impossibility of meeting the applications made to them from all quarters for the purpose, to refuse any further loans on stock." But that is not plausible, since discounts were proceedings at a high rate, so more cash for advances could have been provided by reducing discounts. A more persuasive explanation was given by the *Morning*

³⁵ Normally, the directors met once a week, on Thursday. That particular week they met every day from Tuesday through Saturday, and, from testimony in [83], were in constant verbal communication with the government throughout that time. That the first meeting of the week was on Tuesday almost surely accounts for the increase in the Bank discount rate from 4% to 5% only on that day. But it is rather puzzling that the rate on advances was not raised to that level until the Thursday meeting.

³⁶ For example, *The Times* reported on Friday, 16 December, that a rumor was floating around that the government had "directed" the Bank to purchase £1, 2, or more millions of Exchequer Bills.

Chronicle of that same day. After citing some other reasons that had been adduced for the change of policy, this paper stated:

The fact, however, we believe to be, not that the Directors refused to make advances in this way generally, but to confine their advanced to such persons only as could shew special reasons for such indulgences; for it was discovered that many individuals had availed themselves of the liberality of the Bank to raise present supplies of cash, not with a view to meeting any pressing exigency, but for the purpose of carrying it over to the Stock Exchange, there to take advantage of the fluctuating state of the Market, and to make large profits from the distress of the public. In every instance where the necessity of the indulgence was made manifest, we believe the Directors were as liberal as ever.

And indeed there were splendid profits to be made by those with cash. The press carried many reports of pricing disparities that offered potential for high profits. Aside from the Exchequer Bills anomalies noted before, Consols for money were selling for far less than for account (which was a futures trade, to be settled on 19 January). As a concrete example, The Times of Monday, 19 December, reported that on the preceding Saturday, "a sale of Consols for money was made at 77, the purchaser of which immediately sold them for the opening in January at [81.5], thus gaining [4.5 in a month] for the use of his capital."³⁷. In this example, Consols had to be sold for money, which required permission from Bank directors. But similar profits could be made by those with cash by buying Reduced 3% Annuities (which were not "shut," and had an active regular market) which were deeply underpriced compared to Consols for account³⁸. Many newspapers reported on how such transactions provided a legal way to avoid usury limits and obtain almost risk-free profits at annual rates of 50 to 70% (for short periods, of course).

Thus apparently the Bank was opposed to purely financial operations, even though those would have reduced mispricings, and the money it could have lent to facilitate this would have increased liquidity. It surely also scrutinized the bills of exchange it was discounting, to ensure the proceeds were not used by the discounters for taking advantage of mispricings³⁹. And, what is key for us, the Bank was not taking advantage of these mispricings to make profits for its stockholders.

Opportunities for short-term profits in the money market, of the kind described above, even though not as large, were actually a regularly recurring phenomenon in London. Each quarter, as the dates of payment of interest on the national debt (called "dividends") were approaching, there tended to be a mini-crisis, what Ricardo in 1816 called "a great mass of mercantile inconvenience . . . the most distressing want of circulating medium" ([59],

³⁷ Of course, there actually was some risk in this. Had Britain been reduced to barter, as Huskisson opined might have happened, the counterparty to that deal might not have been able to complete it.

³⁸ Before the 1825 crisis, and soon after its end, the frequent overpricing of Consols relative to Reduced 3% Annuities, documented in [52], was very slight. Considering just the final prices listed in the *Course of the Exchange*, there was perfectly rational pricing on 30 November and 31 December 1825, with Reduced 0.75 below Consols for account. But the final prices on 13 December were 78.5 for Reduced, and 82.125 for Consols, a gap of 3.625.

³⁹ The Bank did this during the period when gold convertibility was suspended, and when market interest rates were above its 5% discount rate [19].

p. 37). He noted that Exchequer Bills were often substantially depreciated during those periods, so that "by the purchase of them then, and the re-sale when the dividends are paid" investors could earn the equivalent of 15-20% interest rates, and that even more could be earned from similar distortions in prices of stock. This was a substantial part of Ricardo's criticism of the British monetary system, and of the Bank's role in it. But it took the Bank a long time to apply a simple solution to the problem. In June 1829, the Bank offered short-term (approximately one-month) advances, to alleviate the expected pressure associated to the 5 July dividend payments. This was noted as a special offer, setting no precedents, and the only collateral that was accepted was Exchequer Bills. Nothing similar was offered for the next dividend season, in early October, but for the one after, the Bank again opened up this facility, with advances allowed also on bills of exchange, and East India Company bonds⁴⁰. From now on, this became a regular and highly praised feature of the Bank operations. Later, even stock started to be accepted as collateral.

At least to some extent, these observations reflect the general conservatism of the British system. As another example, the main innovation in the British financial system that is credited to Walter Bagehot is the introduction of the Treasury Bill as a replacement for Exchequer Bills [13]. However, the awkward nature and high excess costs of the Exchequer Bills, had been obvious for many decades. Not only that, France had had an instrument like the Treasury Bill for decades. Yet it took Bagehot's advocacy and the late 1870s before reform took place.

Examples of this type abounded. The high cost and absurdity of Pitt's Sinking Fund were demonstrated in 1813 by Hamilton [28], but it was not abolished until 1829 [30]. The life annuities that the British government were similarly very costly to the state (but an excellent deal for the purchasers), yet were not reformed until 1829, and even when they were, there followed a long period of limiting the ability of people to exploit adverse selection features.

The general conclusion is that, along with the rest of the British financial system, the Bank was slow to change, and was bound by traditional and widely held norms of banking behavior far more than by actual profit opportunities. Joplin had a very nuanced view of their slowness in adopting the LOLR role in 1825. He claimed that it was his intervention that finally made the directors do the right thing. But he felt that, in not following their self-interest, they were engaged in praiseworthy adherence to widely accepted norms of banking practice. He wrote⁴¹:

With these views it is difficult to conceive how the Directors, in the conscientious discharge of their trust, could act otherwise than they did. Personally, as merchants, they were deeply interested in adopting any course by which the pressure could have been removed; and when the press arrayed itself on the side of principle—for the press only advocated a line of conduct, as before observed, acknowledged on all hands to be right—it might not be without some misgivings as to the firmness of the Directors

CoD Minutes, 11 June and 3 December 1829, and The Times, 12 June 1829, p. 2 and 5 December, p. 2. East India Company bonds were a medium-term instrument similar to Exchequer Bills. The volume of these advances until early 1832 is given in ([83], Appendices 26–27).
 [34], pp. 13–14.

in doing their duty under the peculiar circumstances in which they were individually placed. In questioning the policy which the Bank adopted, it is but justice to give the Directors full credit for the integrity by which their conduct was animated.

6 Bank of England as early Lender of Last Resort

LOLR actions have a long history. In case of banks, they go back almost to the origins of early modern banking in the early 17th century [11]. The LOLR term itself is traced back to Francis Baring in 1797. He wrote of the Bank of England that in a panic that "there is no resource on their refusal, for they are the dernier resort" ([10], p. 22). Note that the LORL role is more de facto than de jure, and it generally falls to the institution at the apex of the financial system. Not infrequently, governments step in. In fact, it is rather ironic that Baring's 1797 book identified the Bank as the LOLR, since just a few pages later it discussed how in 1793 it was the British government that was the LOLR, by issuing Exchequer Bills. Fetter ([21], p. 116) commented that one result of the 1825 crisis was that "the precedent was set that in time of crisis the Bank, not the Government, was to be the instrument of action." The government did step in with assistance when it was essential, for example by suspending the 1844 Bank Charter Act in the crises of 1847, 1857, and 1866, thereby allowing issue of excess bank notes. But it was still the Bank that was the LOLR.

This paper concerns just the Bank and its actions during the crisis of 1825. However, that was certainly not the Bank's first such action of this kind. Already in its very early days, it was called upon three times to help deal with the collapse of the South Sea Bubble of 1720^{42} . Lovell showed, by means of quantitative data on Bank operations, that it acted as LOLR during several crises of the second half of the 18th century [40]. More detailed studies of the Bank during the crises of 1763 and 1772–73 were published by Kosmetatos [37,38]. Some later crises and the associated mitigation actions of the Bank have been documented by Sissoko and Ishizu [67]. Sissoko found the earliest statements in internal Bank documents that refer to need to serve public needs in 1809 ([66], p. 620), but such considerations appear to have been apparent much earlier. (See also Section 14 for some comments by Henry Thornton in 1802.)

By 1825, it was clear from the Bank's behavior that it was planning for the LOLR role. Palmer's testimony before the 1832 committee ([83], QQ. 171–181) is often cited as example of the policy that he advocated, but that the Bank was only slowly evolving into, namely not competing in discounting of bills of exchange with private banks, and undertaking such activities primarily in a crisis. But as Clapham points out ([17], vol. 2, p. 62) the Bank rate being kept substantially above the market rate on bills. The consequent diminution of discounting by the Bank, visible in the table of income from discounts ([17], vol. 2, p. 433) shows that this was the unstated policy of the Bank from the end of the Napoleonic Wars in 1815.

⁴² There were two abortive proposals for the Bank to help rescue the South Sea Company, first the infamous "Bank Contract" of September 1720, and then Robert Walpole's "ingraftment scheme" of early 1721. Finally, there was the 1722 purchase from the South Sea Company of part of their government annuity for £4.2 million which was carried out.

Note also that the LORL role can be very profitable. The British government made profits on its Exchequer Bills loans of 1793 and 1811. And the Bank made money on its LORL operations. The extra profits from the crises of 1847, 1857, and 1866 are clearly visible in the dividends that the Bank paid ([17], vol. 2, p. 428). The panic of 1825 was less profitable, but that was surely due to the usury limits on the interest rates the Bank could charge, and a noticeable increase can still be inferred from the jump in income from "discounts" ([17], vol. 2, p. 433). That is a very general rule, and the only issue is the threat of running out of money. Warren Buffett's investment in Goldman Sachs after the Lehman Brothers collapse in 2008 was extremely profitable, but he had huge stable assets to play with, and could be very selective.

Bignon, Flandreau, and Ugolini [6] suggest that the famous controversy in the early 1870s between Bagehot and Hankey has been misinterpreted, that Hankey was not arguing against LOLR role so much as about the Bank's freedom of action. (This would be consistent with what Schneider has documented for the Bank's actions in the Overend, Gurney crisis of 1866 [64].) Even if we take the Bagehot and Hankey controversy at face value, it is less about whether the Bank should be a LOLR, but rather about the size of its reserve. And that is key to LOLR actions in the 19th century. These days, central banks can effectively print money with the push of a button, as it is all digital, and there is no physical constraint on how much money can be created. In the case of the Bank in 1825, they always had to worry about being able to meet the demand for gold. But they did not have any imposed LOLR duty, and could ration the money they provided to the market.

It should also be mentioned that, as has been discussed in the literature, there was substantial public pressure on the Bank to act in the public interest. Corporations two centuries ago were perceived in different terms than they are today (cf. [85]), and the Bank in particular had special privileges. So it was subject to frequent criticisms, and could not ignore those entire, since its charter was always for a limited term, and renewals had to be approved by Parliament.

7 The Pole, Thornton bank and the Bank of England

The published accounts of the crisis of 1825 frequently cite the abortive attempt by the Bank to save the Pole, Thornton bank before its bankruptcy precipitated the panic. However, those accounts mention only the week before the latter closed its doors on Monday, 12 December. That is because they are based largely on two sources. One is the 1832 testimony of Richards, the Deputy Governor of the Bank during the crisis of 1825 ([83], Q. 5006). The other are the letters of Marianne Thornton, Henry Thornton's first child, from the days of highest tension ([22], Chapter 3). Both sources present a picture of a sudden run on the Pole, Thornton bank, which precipitated consultations of the leading London financiers with Bank management on Sunday, 4 December. This then supposedly led to the Bank lending money to that institution surreptitiously, with a picturesque description how on Monday morning, at the Bank, "the Governor and Deputy Governor who for the sake of secrecy had no clerks there, ... began counting out the Bills [to Henry Sykes Thornton, Marianne's brother, and a partner in Pole, Thornton]" ([22], p. 117). This quote comes from a letter by Marianne to a close friend, written just two days after the claimed

"counting out the Bills." Further, Marianne was the sister and confidante of Henry, and they lived in the same household, so one might expect her description to be accurate⁴³. Yet there are doubts about some parts of her account, for example about the two top officials "counting out the Bills" by themselves. That would violate all good banking principles, and is also inconsistent with the records in the Bank ledgers. The collateral for the loan is universally said to have been mortgages on the estates of Sir Peter Pole, and the loan is stated to have been for either £300,000 (according to Richards, and some records in the Bank Archive) or £400,000 (as claimed by Marianne Thornton). None of this is exactly correct⁴⁴.

The most misleading part of the standard narrative is that it implies Pole, Thornton received assistance from the Bank only a few days before its collapse. Records show otherwise. There is an entry for the Bank's dealings with Pole, Thornton in ADM7/41:786⁴⁵. It shows that already on 21 September 1825, the Bank lent Pole, Thornton £30,000 "on Security of sundry Bills of Exchange." This was an "advance," a somewhat unusual move for the Bank, which normally bought ("discounted" in the language of that period) such bills, but not unprecedented, as similar loans had been made after the new loan policy was instituted in June 1824, which will be outlined in Section 10. And this was two and half months before the big panic, and shows both that Pole, Thornton was already under some pressure, and that the Bank was willing to bend its rules to protect it⁴⁶.

The 21 September loan was repaid on 21 November. But it was renewed a week later, on 28 November, again for £30,000, and again with bills of exchange as collateral. More interesting is the fact that far before the first loan was repaid, in fact just two days after it was drawn out, on 23 September, Pole, Thornton borrowed £50,000 "on Security in the Custody of Mr. Hase." The last part is not completely legible, but likely refers to Henry Hase, who was at that time Chief Cashier at the Bank. And presumably "the Security" was the mortgages on the Pole estates, since we know the Bank was repaid largely from the proceeds of their sales⁴⁷. This was another departure from the Bank's standard procedures⁴⁸.

⁴³ Not only that, but, as her biographer wrote, her letters from that period "show financial insight," and "[t]he little girl who had been talked to by her papa about paper credit and had helped him to do his accounts reveals herself at twenty-eight as a woman of business" ([22], p. 110).

This provides yet another piece of evidence that one has to treat even contemporaneous testimony with caution.
 It is continued on ADM7/41:925 and ADM7/41:926, but those pages deal just with partial recovery by the Bank of the loan from what appear to be maturing bills of exchange, after the failure of Pole, Thornton.

⁴⁶ That the Bank Governor had close family connections to some of the Pole, Thornton partners likely played some role, but we can't determine what it was. Richards, in his 1832 testimony ([83], Q. 5006) about the December events, claimed that because of the conflict of interest issue, he, the Deputy Governor at the time, was the one who dealt with Pole. Thornton.

⁴⁷ A part of those estates, or perhaps all of them, was acquired by the Duke of Wellington in 1829 (*The Times*, 18 May 1829, p. 3). The Bank cleared its Pole, Thornton account only in 1831 according to Bank Archive files F12/34–37. But there are some later mentions of that account in other files, so it seems the issue dragged on for a while longer. The Duke's acquisition also apparently took some time due to issues with title to the property. These examples help justify the prejudice against mortgages. Complicated land transactions took a long time and involved large legal costs.

⁴⁸ As is explained in Section 10, the Bank did start to lend on mortgages in 1824, but such transactions were treated differently, and were not entered in the ledger in the mysterious format used for Pole, Thornton. In particular, while most of those mortgages went to the landed artistocracy, at least one loan was made to the banking house of Chambers & Son in September 1824, and this establishment was declared bankrupt already

Thus when those crucial consultations with the Bank and various London financiers were taking place on Sunday, 4 December, Pole, Thornton already owed the Bank £80,000. On Monday, 5 December it took out £150,000, so not the £400,000 stated by Marianne Thornton. However, this is consistent with the Richards testimony that on Sunday, those Bank directors who were present agreed to allow Pole, Thornton to borrow up to £300,000. Apparently only half was drawn out on Monday. Marianne Thornton's letter of Wednesday said that Monday's infusion of cash and the rumors that the Bank was supporting Pole, Thornton had calmed customers of the latter, so it was perceived as fully safe, and money was coming back in. Unfortunately, that apparently was the calm before the storm, since on Thursday, the Bank lent another £50,000 49 , on Friday £34,000, and on Saturday £66,000, bringing lending that week to a total of £300,000. This left Pole, Thornton in debt to the Bank to the tune of £380,000 as it closed its doors the following Monday⁵⁰.

The £150,000 drawn out on Monday was backed by collateral consisting of bills of exchange. The Thursday through Saturday loans were again "on Security in the Custody of Mr. Hase," so surely backed by the mortgages on the Pole estates. Since the entire Pole, Thornton loan was a special deal, arranged before the crisis week, it is not counted among the advances in Table 1.

Marianne Thornton's letter of Monday, 12 December, written after Pole, Thornton closed its doors, mentioned the decision to close up shop was made on Saturday, in consultation with various financial figures. However, it was not announced publicly (and so there was no warning about it in the Monday morning papers). Later, there was a newspaper report that various banks collaborated to keep Pole, Thornton open, and that they sent advance warning and cash to their country correspondents by Saturday night mail, to prepare them for the coming shock⁵¹. It would be of interest to find out whether that final tranche of the Bank loan, of £66,000, was dispensed before or after the decision to shut Pole, Thornton.

This incident is interesting in its illustration of the Bank breaking with its usual rules as the financial crisis was intensifying. It is also interesting in illustrating the spread of information. Marianne Thornton's letter of Wednesday, 7 December, mentioned that rumors about Bank assistance spread already on Monday. However, the earliest notes about it that have been found in the press are in Wednesday morning papers (so written Tuesday evening). The *Morning Chronicle* financial column said that late Tuesday, a rumor spread about "a celebrated banking-house" being in great difficulties, and that this led to Bank directors meeting on Sunday. However, that writer had inquired, and was convinced "the whole [was] a fabrication for the purpose of stock-jobbing." *The Times* of that day (Wednesday still) reported a more detailed version of the rumor, but gave it much more credence, and guessed that mortgages were offered as a collateral, which, if true, it regarded as a great evil. Neither the *Morning Chronicle* nor *The Times* gave the name of the bank

in November of that year. The Chambers bankruptcy then got entangled with that of Pole, Thornton, as Peter Pole was in the process of buying some of the Chambers estate.

⁴⁹ The increased pressure on Thursday appears to have been occasioned by the bankruptcy of a major country bank

⁵⁰ Various documents in the Bank Archive state that the Bank loaned Pole, Thornton only £300,000. However, the £380,000 is confirmed on ADM7/41:925, which shows this as the total that the Bank was slowly recovering.

⁵¹ Morning Post, 13 December 1825, p. 3.

that was in difficulties but that was likely easy to guess for those familiar with the London financial world.

At the end of the week, when the mails went out Saturday evening to country banks warning of the impending closure of Pole, Thornton, one might expect that some word of that might have gotten back to London by Sunday night. But there is no sign of such information in any of the Monday morning papers.

The Pole, Thornton case is also interesting in illustrating the opacity of the financial markets of 1825, and the delusional thinking that prevailed even among insiders. (Not that modern markets are any different in that respect, with much greater complexity compensating for more information being available.) Marianne Thornton's letters imply that her brother believed that Pole, Thornton was solvent. (However, his estimates apparently changed from thinking there would be a large surplus in her letter of 7 December to barely solvent in the 12 December one.) That was also the message that the press propagated, based on assurances from prominent figures. (Whether the journalists and their sources really believed that, or were patriotically trying to calm the panic, is hard to tell.) For many banks, assurances were given they were solvent, and would soon re-open. That was true for some, cf. [2]. In the case of Pole, Thornton, as late as the end of December, a committee of experts examining that bank's accounts declared they were convinced assets would exceed claims by £270,000, not even counting Sir Peter Pole's estates (The Times, 29 December 1825, p. 2). Reality turned out quite different. The accounts were only settled in 1833, and the unsecured creditors received only 56% of their claims, even after the liquidation of Sir Peter Pole's estates ([2], p. 11).

The Pole, Thornton bankruptcy thus also illustrates that the panic of 1825 was not unjustified, as was claimed by many observers, including many of the leading figures in London commercial life at a meeting held at the Mansion House on Wednesday, 14 December (cf. *The Times*, 15 December 1825, pp. 2–3). John Mills wrote in 1868 (in the wake of the 1866 Overend, Gurney crisis) that "[a]s a rule, Panics do not destroy Capital; they merely reveal the extent to which it has been previously destroyed by its betrayal into hopelessly unproductive works" [45]. That describes well what happened in 1825, in 1866, as well as in more recent episodes, such as the Global Financial Crisis of 2008.

8 The crisis of 1825 in contemporary press

The preceding section illustrates some of the limitations on the information available from the British press during the crisis of 1825. This section provides more examples, but also provides more information on what had happened.

The development of the British financial press received a huge boost from the investment mania of the 1820s and the crash of 1825 that was the culmination of its deflation, cf. [72] and also ([73], pp. 542–43). Until then, there was very little regular coverage of business or financial news. The first daily paper to offer a daily column in this area was the *Morning Chronicle*, and only in 1822. *The Times* did not follow that example until the end of 1825, as the pressure was building up that led to the panic.

By mid-1830s, *The Times* had built up a large lead over the other London dailies in influence, prestige, and circulation (a lead it did not yet possess in 1825), and to a noticeable

degree that was due to its financial editor, Thomas Massa Alsager. Of the papers that were examined, *The Times* provided the best coverage at the peak of the crisis in December 1825. A survey of London dailies published in 1836 called *The Times* "the leading journal of Europe," and that Alsager's column was scrutinized "as a matter of duty by merchants, stockbrokers, and speculators of every shade. You will hardly get a decided answer from any of them till he has seen the *Times*" ⁵². But that was definitely not the case in 1825, and it is not clear how well informed the financial journalists of that period were. Still, they provide the best perspective we have of what the public was told, and presumably what most readers believed, but which was often at odds with reality.

The following papers were examined for their coverage of the crisis in December 1825:

- Courier, an evening daily, regarded as close to the government, and the one that published Joplin's arguments
- Morning Chronicle
- Morning Herald
- Morning Post
- The Times (also published in the morning)

During the British investment mania of the 1820s, there were many voices extolling the prosperity that was visible. This included a speech in Parliament of the Chancellor of the Exchequer which disclaimed "any desire to induce the country to indulge in an unreasonable exultation as the the present, or an extravagant anticipation as to the future," but helped to do exactly that with the rosy picture it presented⁵³. There was also much cheering for the new loans to foreign countries, and the new companies that were springing up. But there were also many voices warning that Britain was in a financial bubble that was bound to burst with dire consequences. A careful evaluation of the various opinions that were published, and of the balance of positive and negative views is yet to be prepared. This section presents just a few observations on what was published about what the Bank was doing, or what the newspapers suggested it should have been doing, during the crisis. Some items from the press of that period are also cited to explain some of what might seem puzzling phenomena, such as how a forgotten box of £1 banknotes could have mattered.

In late November and early December, there was a growing perception that trouble was brewing. Blame was being assigned for this either to the government, or the Bank, or the speculative foolishness of the general public, with various observers stressing one or another of those factors. But the general tenor of the press seemed to be that there would be no gigantic crisis, and no need for any drastic moves. A leader in *The Times* noted the monetary pressure, and the desire of business and finance agents for an easing by the Bank. Still, it claimed that the policy of stringency being followed by the Bank was the correct one⁵⁴. It opined the underlying problem was excessive monetary ease which led to an "adventurous and gambling spirit" being let loose, and that "[i]f any crash is to come, the sooner it arrives the less terrible will be the ruin." Somewhat similar injunctions

⁵² Fraser's Magazine, vol. 13, May 1836, pp. 620–31.

 $^{^{53}}$ The Times, 1 March 1825, p. 2.

⁵⁴ The Times, 23 November 1825, p. 2.

against the Bank providing more accommodation were published in the following weeks by other papers⁵⁵.

However, some voices were issuing dire forecasts, and calling for, or predicting, drastic actions. The press for the most part mentioned them, but argued they should not be pursued. For example, on Monday, 5 December, the *Morning Post* had a substantial article that blamed the public for "the spirit of gambling and speculation" that they had been warned against many times, and mentioned that while the government did issue Exchequer Bills during the wars, this paper opposed such moves in 1825⁵⁶.

As was explained in the previous section, during the week of 5 December, newspapers did publish the rumors of the Bank assisting Pole, Thornton (although without naming it, and with some delay). There were many stories of various banks and other commercial firms failing. The extreme pressure in the financial markets, with anomalous pricing, inability to carry out any sales, and the like, was universally cited. The *Morning Herald* of Thursday, 8 December, even cited a rumor that Pole, Thornton was going to close, even though "[n]o doubt is . . . entertained of the firm in question being perfectly solvent" ⁵⁷. Overall, though, what was published in the London press did not convey any concerns about an impending national calamity. There were even contrary cases. For example, the financial column in the Friday, 9 December issue of *The Times* noted that the failures of the Wentworth provincial banks was contributing to a crisis in the provinces, but did not lead to a panic in London. It concluded it had been right in predicting the ongoing process would cleanse the system. The next day, a leader in *The Times* noted that the disease "was working its own cure."

However, there are indications that the level of serious concern about the markets as a whole was rising, and that the press may have been concealing it, possibly to avoid being blamed for precipitating a catastrophe. (Many paper joined in criticizing the "bears" who were supposedly spreading false rumors to profit from short sales.) An interesting case is presented by Alsager of *The Times*. In addition to being the financial editor for that paper, he appears to have been moonlighting for at least one other paper, the *Dublin Mercantile Advertiser*. That was a weekly paper published in Dublin, Ireland, and it appeared on Mondays. During the panic, it usually printed separate reports on the London market action for each of the 6 business days that ended the preceding Friday. (Due to slow communication that was available in those days, news from Saturday apparently arrived in Dublin too late to be published on Monday.) The London reports were dated 7:30 pm, and were typically almost identical to the financial column that appeared in *The Times* the next day. So presumably Alsager prepared a draft of his column by 7:30 pm each day, and sent it off to Dublin by the evening mail, and then did some further editing (and possibly had the draft edited further by Thomas Barnes, the editor of *The Times*) before

⁵⁵ For example, *Morning Post*, 1 December 1825, p. 3, which also mentioned in an approving tone that the Bank of France refused to lend to speculators. Another case four days later was *Morning Herald*, 5 December 1825, p. 2. The *Courier*, which would later publish Joplin's exortations for the Bank to lend freely, lauded the investment mania in a leader on 1 December, and seemed to show no concern about any impending danger.

 $^{^{56}}$ Morning Post, 5 December 1825, p. 4.

This was not accurate, according to Marianne Thornton's letters, as the decision to close the doors was only made on Saturday. The name Pole, Thornton was not mentioned by the *Morning Herald*, it only referred to the bank that obtained "a large sum" from the Bank on Monday. However, the mention of that bank having many country correspondents was an unmistakeable pointer to Pole, Thornton.

it was published the next morning in London. Comparing Alsager's column in *The Times* of Saturday, 10 December, with the "private correspondence" in the *Dublin Mercantile Advertiser* that was dated 7:30 pm Friday, 9 December, and which appeared in the issue of Monday, 12 December, we find most parts are almost identical. But there is one glaring difference. *The Times* only mentioned briefly that there had been extensive discussions in London about the fall in the price of gold. No explanation was given as to why that should be important. The Dublin version had a substantial paragraph that explained this price decline meant there was much more gold than had been thought, so apparently "their fears, or some other motives yet unexplained, restrain the Bank Directors from giving that increase in the circulation which is called for by the demands of commerce, and which, if our first position is a just one, may be made with perfect safety." This version shows that there was a strong desire in some London financial circles for a more accommodating stance by the Bank, and also that it was accompanied by a conviction this was safe to do.

Monday, 12 December is when the crisis escalated with the closing of Pole, Thornton. General concerns were likely already magnified before that closing by reports in many papers of that morning of an unusual event at the Bank, namely that the preceding Saturday afternoon, Bank directors allowed "an eminent merchant house" to transfer a substantial sum of Consols. Consols books were officially "shut," so it required special permission to carry out this operation, which one paper called a "measure hitherto unprecedented" ⁵⁸. According to the *Morning Chronicle*, news of this "produced a complete rush among the dealers to effect sales at almost any price." Presumably this action by the Bank was interpreted by the market as a sign that the directors were seeing major problems looming.

Once Pole, Thornton closed its doors, the intensity of the panic jumped to an unprecedented level, and was covered, often in apocalyptic terms, by the press. There were calls for intervention by the government and the Bank. The *Morning Chronicle* of Tuesday (and repeated later) supported a suggestion that the Bank should pay early the interest on government debts that was due on 5 January. *The Times* of that same day, Tuesday, reported on that rumor, but said it was not credible, there were too many obstacles to such a measure⁵⁹.

The press was not unanimous. Barnes, the editor of *The Times*, had a different attitude from that of Alsager, his financial editor, and of most of the press. In a leader of Tuesday he claimed that what was happening was needed to purge the "extravagant speculation" that had been going on, and that the panic "creates in [the editor's, or his leader writer's] mind no great terror as a *national* evil."

What was missing in the press was a description of the huge increase in discounting by the Bank on Monday. The Bank did not publish any statistics on its daily activities. What was public is that on Wednesday, the Bank started offering advances, and this may have contributed to the impression that the directors moved to assist the money market only

⁵⁸ The "unprecedented" phrase comes from the *Morning Herald*. Most of the other papers also treated that move as highly exceptional. *The Times* was an exception, in that it claimed that requests for such permission "[were] seldom refused if proper reasons are assigned for the deviation from the general rule." However, later it seems to have implicitly backed off from this claim, as it described the Bank's continuing to allow such transfers as a major accommodation, and expected this to stop.

⁵⁹ Could that have been carried out, it surely would have been of substantial assistance. The infusion of about £9 million would have made a big difference, cf. Table 1. But the legal and logistical problems made this impractical.

on Wednesday. However, Table 1 shows that the Bank became much more accommodating already on Monday.

On Wednesday morning, just before the Bank's dramatic intervention in the markets, several newspapers reported that attempts had been made to get the Bank to lend on stock, with some rumors claiming a delegation of bankers had gone to the Prime Minister to ask him to pressure the Bank to do this. Some papers (including *The Times*) also reported categorically that on Tuesday, many requests of this type had been refused by the Bank, including one to borrow with Reduced 3% Annuities as collateral. There may have been such a refusal, but on that day, the Bank did make a large advance (£48,000 to the Robarts Curtis bank) on security of £75,000 (par value) of Reduced 3% Annuities, and, as is shown in Table 1 had started lending on stock a day earlier, on Monday. But apparently this was all totally unknown to the press.

The Bank's move to lend on a large scale on stock starting on Wednesday was widely reported in the press on Thursday. For example, *The Times* noted that "[t]he Bank Directors have also given way on a point respecting which they have hitherto resisted all aplications—viz., in lending money on the security of Government stock or of Bank-stock; and large sums were yesterday advanced on such securities, particularly to country bankers, who had to state that they were wholly unable to convert them into money in the open market, except at enormous sacrifices."

The last part of the above quote brings out an important point, which was that the Bank was rationing credit. Access to special facilities, such as transfer of Consols when their books were "shut," or lending on stock, was only to be obtained through written requests that justified the need for such. (Assurances were given that answers to such requests would be provided within half an hour, but some requests were denied, with one detailed in the financial column of *The Times* of Saturday, 17 December.) So this violated Bagehot's first rule, that LOLR lending should be free. But this is understandable in view of the usury laws.

Many other measures to relieve the stress were discussed, and some were taken. On Thursday, *The Times* reported (with similar passages in other papers) that

A rumour got afloat yesterday, that on account of the difficulty experienced in supplying the country demands, the Bank is about to issue one and two pound notes; but this, with another still more absurd, that an Order in Council had actually been issued to suspend cash payments, found few persons senseless enough to repeat them.

Well, suspension of cash payments never took place, although had the Bank faced greater demands, it might have⁶⁰. But that very same morning, Thursday, Bank directors did take the less "absurd" step, and decided to issue £1 and £2 notes. After consulting the government, it went ahead and sent them out to the country banks on Friday, according to press reports.

⁶⁰ As an extreme example, there was a ministerial meeting Friday evening at 9 pm that lasted until 2 am Saturday, and was followed by another one Saturday afternoon. So the government was watching the situation closely, and in spite of all denials, might have stepped in if necessary.

The issue of small (£1 and £2) notes was very controversial. Loans on stock were novel, but appeared to be accepted as beneficial under the circumstances. On the other hand, small notes appeared to provoke an allergic reaction. The Times of Saturday noted that the Bank appeared to hold under £500,000 of them, "but, unfortunately, that quantity may readily be increased, if the original plates remain in existence." That quantity was indeed increased, but it seems it reached a maximum level of under £1.6 million⁶¹. And no harm came from that. The fears of Alsager and most contemporary observers were unjustified, as Joplin and Stuckey had predicted⁶².

The small notes that were initially issued had indeed been stored at the Bank, since some quickly made their way back to London and were reported to have been printed in 1818. Just how forgotten they had been is hard to say. However, their availability did appear important. The demand was for money. For many people Bank of England notes were satisfactory, but some insisted on gold. The problem was producing enough, and this affected paper as well as gold. Today, central banks can send money to institutions they supervise almost instantaneously, by changing a few bits in their computers. In the 1820s, there were logistics problems with issuing banknotes. Printing took time, but even once that was done, they had to be filled out and signed by authorized Bank employees. Clerks dealing with notes under £20 were called in on Sunday, 18 December, and kept at their jobs from 8 am to 9 pm⁶³. Not only that, but the standard procedure at the Bank was that when a note came back, it was not reissued, but was stored for a few years and then burned [29]. At the height of the 1825 crisis, the Bank took the unprecedented step of reissuing some used notes. Yet the *Courier* reported on Tuesday, 20 December, that on the preceding day, the Bank was not able to exchange £15,000 for notes under £20. So even a box of half a million in small notes likely made a noticeable difference for a few days, although it was not large compared to the approximately £8 million that the Bank put into circulation during the week of 12 December. Their lack might not have been catastrophic, but surely would have been embarrassing, with the Bank telling customers to come the next day, say. The low point in the Bank's holdings of coins and bullion was reached on 24 December, when it was just £1.03 million 64 . So it is easy to imagine that some denominations of coins and notes might have been unavailable at more times than have been noted, and this would have been materially worse without those £1 and £2 notes.

A similar situation applied to gold coins. There was plenty of gold in London. But what was needed were coins, the gold sovereigns and half-sovereigns. In November, the Bank had issued £288 thousand worth of those. In December, though, it issued £1,815 thousand⁶⁵.

⁶¹ [83], Appendix 83. Based on that Appendix, there had been slightly under £400 thousand of those notes in circulation before the panic erupted, but it is likely that many of those had been lost or destroyed, and so were not really circulating.

⁶² There is a discrepancy in the precise dating of this action. *The Times* and *Morning Post* of Saturday, 17 December, reported that small noted had been issued the previous day, Friday. But ADM7/41:382 only reports new issue of £100,000 on Saturday (with ADM7/41:383 noting further batches of £100,000 being issued on Monday, Tuesday, and Thursday of the following week).

 $^{^{63}}$ The Times, 20 December 1825, p. 2.

⁶⁴ This is apparently based just on balances taken on Saturdays, so the minimum may have dipped below that level on some other days, [83], Appendix 28.

 $^{^{65}}$ [83], Appendix 76.

The Mint was working overtime, but could only produce £500 to £600 thousand per week⁶⁶. On Saturday, 17 December, the *Morning Chronicle* and the *Morning Herald* reported that on Friday, Rothschild had delivered £150 thousand in sovereigns he had purchased in France to the Bank, while *The Times* claimed the amount was twice that. Whichever was correct (and all reports were that more sovereigns were on the way by way of the Rothschild network), this was again a noticeable amount compared to the needs of the day, but not huge⁶⁷. Hence, while it seems hard to argue that either the small notes or Rothschild's sovereigns were absolutely essential in allowing the Bank to save the British financial system from collapse, both were likely of substantial assistance.

9 Thomas Joplin, Vincent Stuckey, and "stock as security"

The 1832 Bank Charter hearings [83] provided the public with extensive information about Bank operations. Those hearings also led to substantial changes in the British banking industry, including new conditions on the Bank in the renewed charter of 1833. However, there continued to be heated debate on the optimal monetary policies. This debate incidentally brought forth claims of two people to have been instrumental in moving the Bank towards active liquidity provision at the climax of the crisis of 1825. A modern scholar considered the available evidence for these claims, and tried to apportion the credit. He wrote [50]:

It seems reasonable to infer from all this that Stuckey's intervention owed not a little to Joplin's article; that Joplin's article produced the dramatic intervention by the Bank; and that thus Bagehot's classic statement of the role of the lender of last resort stems from the intervention of the outsider Thomas Joplin.

The evidence of this paper, in particular Table 1, shows that while Joplin and Stuckey may deserve some credit for providing more pressure on the Bank, as well as justification for its moves, but they were not the originators of the novel method that the Bank started to employ.

The first claim to be published was by Vincent Stuckey. He was head of Stuckey's Bank, a provincial bank in the West of England which much later employed his nephew Walter Bagehot⁶⁸. Stuckey was widely respected and on several occasions was asked to testify about banking to Parliamentary committees. In 1834, he published a pamphlet in which, as a small point, he claimed credit for inducing Bank directors to lend freely at the height of the 1825 crisis. As was mentioned several times, the climax of the crisis of 1825 started on Monday, 12 December 1825, when the Pole, Thornton bank failed. Stuckey wrote that he

 $^{^{66}}$ The Times, 20 December 1825, p. 2.

⁶⁷ Further research in the Bank Archive, or the Rothschild archives, may provide solid data. There is an intriguing entry in ADM7/41:798 which records a series of transaction with Rothschild. There is a break at the beginning of August 1825, when all transactions with him stop. But then there is a series of cash payments to him, the first one of £123 thousand on Saturday, 17 December and the second of £100 thousand on Monday, 19 December, followed by £64 thousand on Wednesday, and then nothing until another cash transfer a week later, on 28 December. Perhaps those were payments for the sovereigns he delivered.

⁶⁸ Bagehot, after a short time as a lawyer, joined what was basically the family bank, and eventually, in addition to being the editor of the *Economist*, was a director of this bank and in charge of its London office.

personally delivered to Bank directors a letter "very early in the morning of [Wednesday] 14th of December" 69. Stuckey claimed his letter was influential in spurring the directors into action. Gregory ([27], vol. 2, p. 149) remarked that Stuckey's "important part" in affecting Bank policy "appears to have escaped the attention of banking historians," so he thought Stuckey's claim was credible.

Stuckey in his letter did not specify what kind of collateral should be accepted by the Bank. He just argued for an enlargement of the paper money supply (he mentioned a figure of £6 or 8 million, which is close to what the Bank ended up providing), primarily to replace the notes of country banks. His claim was that the country's total money supply would not be affected, so the universal fears of monetary derangement from excessive paper money were not justified.

Stuckey wrote as a Bank stockholder, and signed his name. His letter implied that he expected the directors to know of his expertise and monetary views. He did not mention his personal interest in such lending. The records (ADM7/41:919) show that on Thursday, 15 December, he took advantage of the Bank's new policy to borrow from it £70,500 with stock as collateral⁷⁰.

Stuckey, in his pamphlet [70], did note that there were others who had suggested the Bank be bold in providing liquidity, but did not name anyone. Gregory ([27], vol. 2, p. 150) noted that those "others" should include Joplin. Thomas Joplin was a prominent banker and a prolific writer on banking and monetary policy. He is credited with being one of the leaders in advancing the development of joint stock banking, and was the foremost theorist and proponent of LOLR policies in the period between Thornton and Bagehot ([49], pp. 116–17). He also came out in the 1830s with claims that he was instrumental in pushing the Bank to be a LOLR during the crisis of 1825.

At the end of the 1833 Parliamentary session, Thomas Gisborne, MP, notified the House of Commons that in the next session he was going to present a petition from Joplin asking for investigation of the panic of 1825⁷¹. Nothing seems to have come of that, but Gisborne did push for such a committee and explicitly for recognition of Joplin's contribution in the session of 1836, but the House of Commons refused without much discussion⁷². Joplin's explicit claims were made in the pamphlet [34], which was then reprinted with some comments as part of [35]⁷³.

⁶⁹ [70], pp. 8–11, which includes full text of the short letter. This piece was reprinted, with comments, in [27], vol. 2, pp. 149–150, and in [63], pp. 88–89.

This was a very substantial sum, on the order of 1% of total accommodation provided by the Bank in that crisis. It was also very large compared to what little we know of the size of Stuckey's Bank. Even in 1831, after some acquisitions, and conversion to joint stock status, it appears that its nominal capital was £200,000, but the paid-up portion only around £100,000 [63,69]. Perhaps Stuckey needed some of the money to protect his very large salt business. He repaid part of the loan to the Bank by 31 December, and everything by 16 January of next year. His collateral consisted primarily (about 80%) of Consols, but there was a bit of other securities, including 1,000 of Bank Stock, which suggests he probably cleaned out his holdings of various types of stock, something that further investigation in Bank ledgers can clarify.

 $^{^{71}}$ The Times, 13 August 1833, p. 3.

⁷² For some coverage on that, see *The Times*, 17 May 1836, p. 1 and p. 3.

⁷³ There is some uncertainty about the dating of [34]. It does not have a publication date on its title page. Some libraries and databases date it to 1833, others to 1835, and Joplin's biographer D. P. O'Brien places it in 1835 ([49], p. 279 and [50], p. 18). However, it is more likely that it was published in early 1836, possibly not for general sale, but for distribution to MPs, in support of the Gisborne campaign to obtain recognition for Joplin's

Joplin wrote that the panic "was suddenly arrested" in the space of 6 days by the Bank increasing its note issue by about £7 million, and that ([34], p. 3)

[t]his latter was one of the boldest and most successful measures of a financial character ever adopted, and was the theme of grateful and universal praise, voluntarily tendered to the Bank, but also claimed by the Government of that day for itself. The chief credit of the transaction however, was neither due to the Bank nor the Government, but to the writer of the following pages, from whom it emanated, as by subsequent disclosures he is now enabled to show.

He then presented what he called "the secret history of the Panic." He explained how "the Panic," which had been building up for some weeks, exploded on Monday, 12 December, with the failure of Pole, Thornton bank, and intensified on Tuesday, as other firms closed. He cited *The Times* on "the impossibility of procuring money at all" at that moment.

Contemporary observers all agreed with Joplin's and Stuckey's assertions that what turned the tide was the Bank opening up its purse and providing abundant liquidity, starting on Wednesday, 14 December. Joplin's claim was that the Bank directors were resisting calls for such a move, and that what changed their minds was a letter he wrote to the *Courier*, which was published on Tuesday evening, 13 December. It appeared as an anonymous piece, but not as a letter, but as a leader⁷⁴, which added weight to its contents. Further implicit support for Joplin's recommendation was that at that time, *Courier* was regarded as a mouthpiece of the government, so this leader could have been taken as something the ministry were supporting.

Joplin's Tuesday evening piece was more sophisticated than Stuckey's letter of Wednesday morning. He argued not just that much of the additional money to be created by the Bank would go to supply deficiencies in the country, but also that it would compensate for the money that was being hoarded out of fear of instability. Hence it would not have the dreaded inflationary effect, and that the excess supply could be easily mopped up once the panic subsided. But just like Stuckey, Joplin did not specify what kind of collateral the Bank should accept. It was only in his second piece in the *Courier*, on Wednesday evening, that he briefly mentioned the Bank should consider a wider range of securities, "the description of such security ought not to be considered too scrupulously" ⁷⁵. By that time the people connected with the financial sector knew that the Bank was lending "on stock."

In his plea for recognition in the 1830s, however, Joplin claimed a crucial role in calming the panic was played by the Bank accepting as collateral securities that it usually refused.

contributions. The earliest review of it that has been located was in the 9 February 1836 issue of the *Essex & Herts Mercury*. A number of other reviews followed in the next couple of weeks. Some dealt with Joplin's claims to have quelled the panic in 1825, but many ignored that, and instead concentrated on a brief passage in his pamphlet that alleged government interference in the press. No sign has been found of the pamphlet being available before 1836. Joplin wrote ([34], p. 3) that his claims about the crisis of 1825 had been "written two or three years" earlier, in connection with Gisborne's motion, surely the one of 1833. This supports the theory that he wrote his draft in 1833, but that it was published only in early 1836.

⁷⁴ Leaders, or "leading articles," in those days were often more than modern editorials, as they frequently contained news and analysis, as well as recommendations.

⁷⁵ [34], p. 28. Joplin's three prominent articles in *Courier* of Tuesday, Wednesday, and Thursday evenings are all reprinted in that pamphlet.

Because of the work involved and many desperate firms simply not having the bills of exchange of high enough quality for discounting in a panic, relying on those bills alone was not sufficient. "The proper way for the Bank at this conjuncture to give relief, was by bills or loans on government securities" ([34], p. 15). "In order therefore, to afford the assistance required, and with the promptitude that was called for, the bank must not only have enlarged its issues, against the judgment of the Government, against the opinion of the public, and against its own conviction; but they must have done so upon a species of securities, inconsistent with the principles upon which their business have always been conducted" ([34], p. 16). As far as the public, and presumably Joplin, knew, the Bank first did that on Wednesday morning, and Joplin claimed that it was his Tuesday evening piece that persuaded them on this drastic change in policy. Thus he seemed to be implicitly implying that his first *Courier* piece served not just to persuade the Bank to lend freely, but also to lend on stock.

While Stuckey's claim to have pushed the Bank to lend freely was indeed forgotten until Gregory revived it in 1936 (([27], vol. 2, p. 149), that of Joplin continued to be cited, and given varying degrees of credence. Of contemporary accounts, the most critical that has been found so far was in the *Courier*, the paper that published those key letters by Joplin in December 1825. This paper wrote (*Courier*, 19 February 1836, p. 4):

Whether the Bank was moved to make the advances in question by Mr. Joplin's articles is more than we can say. The policy of the measure was so very obvious that we can hardly suppose it required any one to suggest it, though we believe it was suggested to and pressed upon the Directors by fully 500 individuals, exclusive of Mr. Joplin.

A decade later a much more favorable view of Joplin's contribution was taken by the *Bankers' Magazine* (vol. 6, November 1846, pp. 70-80). As a major figure in the development of monetary theory and joint stock banking, he is of course cited frequently. And his claimed contributions to solving the panic of 1825 do get mentioned from time to time, for example in ([54], p. 105) and ([36], p. 36), and of course are treated extensively by his biographer [49,50]. Joplin's key pamphlet [34] was reprinted among a collection of classic works on LOLR [16].

But just how much credit does Joplin deserve? Table 1 shows that most of the money that went out of the Bank was by way of discounts, and those exploded already on Monday. Lending on stock was substantially smaller (and that on bills of exchange and other securities quite a bit smaller), but important since it appears to have been key in keeping the banking sector afloat⁷⁶. However, lending on stock started already on Monday, and grew on Tuesday, so in those two days about half as much was provided in loans as on the Wednesday that Joplin claimed credit for. So the Bank was already moving towards providing liquidity accepting as security instruments that it officially had not been dealing with. Hence Joplin and Stuckey may have pushed the Bank to be more of a LOLR, but their contributions are hard to evaluate, as the Bank was already moving in that direction in a substantial way.

⁷⁶ Of the two advances on Monday, one was to a bank, but it came to 94% of the total. On Tuesday, 5 out of 9 advances were identified as going to London bankers, and those 5 received 68% of the total.

10 Bank of England and dealings in "stock"

Current literature has very little on the Bank's dealings in stock, and what is available is often incomplete and misleading, as in ([17], vol. 2, pp. 295–96). This is largely the result of neglecting the information contained in the ledgers in the Bank Archive that record transactions in various stocks. This section presents new data, obtained primarily from ADM7/41. Some was also checked with data in ledgers for particular stocks.

The Bank had a long history of dealing in long-term government securities. However, by the early 1820s, it appears to have been the universal opinion that "stock" was not an appropriate security for the Bank to hold, and there was a false belief that it in fact did not have any in its possession⁷⁷.

There is no comprehensive account of Bank holdings of long-term government debt, but there are traces of them going back to the early days of this institution. For example, during the South Sea Bubble of 1720, the Bank converted 283,250 (par value) of so-called "Redeemables" (any of several types of government bonds) into South Sea Stock⁷⁸.

A recent paper of Sissoko and Ishizu [67] cites short-term lending, with Consols as collateral, in the 1799 crisis of West Indies merchants. Even before that, there was some non-crisis lending with stock as collateral. In particular, there was a very large transaction that started in 1788 and lasted a remarkably long period of 29 years. It involved the East India Company (EIC). The EIC and the Bank had many dealings over the years, with EIC loans sometimes backed just by the signature of EIC directors⁷⁹. Towards the end of the 18th century, the EIC often had financial difficulties, and in 1788 sought a one-year loan of £600,000 from the Bank. This was granted, but only on transfer to the Bank of collateral consisting of the entire EIC holding of the East India Annuities, which had par value of £1.2 million, and at that time had market value of about £850,000⁸⁰. This arrangement was extended, and although the outstanding amount of the loan did vary, the entire initial collateral remained with the Bank until November 1817⁸¹. There does not seem to have been any public knowledge of this loan (which fell in the category of private loans), the general opinion appeared to be that the Bank did not have any long-term securities other than its giant loan to the government that made up its official capital.

⁷⁷ The perception of stock as undesirable for the Bank was surely reinforced by the memory of what happened in the 1790s, when the outbreak of the wars with France led Consols to fall from close to par to about half of that. On the other hand, although this was regarded as in a different category, the Bank's capital consisted of a perpetual loan to the government.

⁷⁸ CoD Minutes, 14 July 1720. This resulted in a loss of about 50% of the value of this stake, as the Bubble imploded. Interestingly in terms of precedents for the Bank's actions in the 1825 crisis, at that same 14 July 1720 meeting, Bank directors approved a loan of £84,000 on the security of other government securities to a partnership of two individuals.

 $^{^{79}}$ For example, see CoD Minutes, 14 March 1728.

⁸⁰ CoD Minutes, 31 July 1788.

East India Annuities are interesting, in that they were administered by the EIC, but were obligations of the British government. In spite of having the same 3% payout as the Reduced 3% Annuities, and on the same dates, they showed pricing disparities far larger than those documented in the 19th century in [52]. In September 1793, they were converted to Reduced 3% Annuities, which resulted in a great gain for EIC and the public holders of the remaining £3 million of them. The Reduced 3% Annuities held as collateral by the Bank from 1793 onwards are recorded in AC27/6791:1094, AC27/6822:601, AC27/6855:2001, and AC27/6904:2001.

The French and Napoleonic Wars brought great profits to the Bank, and this led to a special 25% stock dividend in 1816 in addition to generous regular dividends of 10% per year⁸². Those dividends were kept up through 1822, but apparently only by drawing on retained earnings, without telling stockholders about it⁸³. Starting in 1823, the dividend was lowered to 8% per year, but for much of the time it appears that this still required using the hidden reserve. Thus Bank directors were under pressure to produce more earnings.

The main reason for lowered profits was that with the Bank rate at 4%, and the market rate on bills of exchange at 3.5% or less, Bank's discounts dwindled⁸⁴. To compensate for that, a new business was started in May 1823. Acting on the suggestion of Sir William E. Rouse Boughton, Bank directors decided that month to lend money with Bank Stock as collateral, for periods of 6 to 12 months, at 4%, and up to 75% of the market value of their stock on the day the loan was made⁸⁵. Demand for such loans turned out rather limited, so a year later the Bank decided to also lend on mortgages and on stock⁸⁶. It also relaxed the terms, so loans on stock, at 4% per year, could be for any length between one and six months. This stimulated more demand, and most of it seemed to be coming from jobbers (the dealers, or market makers) of the London Stock Exchange, which, to the extent it was known to observers, likely increased criticism of the Bank⁸⁷.

These moves were widely criticized as being risky for the Bank, and contributing to what was felt was the excess of money that was fueling speculative activities⁸⁸. Such criticism, and perceived need to apply the brakes to an overheated financial sector, led the Bank to curtail such practices. In September 1825, at the regular half-yearly meeting, stockholders were told that loans on stock were about £480,000, those on mortgages were under £1.4 million, and that while such lending had not been abolished, it was "suspended for the present" ⁸⁹. While mortgages could not be eliminated, the stock loans were by design of limited duration, and it appears that by early December 1825 they were practically all wound up⁹⁰.

⁸² [17], vol. 2, p. 428.

⁸³ Retained earnings were the "Rest" shown in [8].

⁸⁴ [17], vol. 2, p. 433.

⁸⁵ CoD Minutes, 15 and 22 May, 1823.

 $^{^{86}}$ CoD Minutes, 24 June 1824.

⁸⁷ The largest borrower was Andrew Amedee Mieville, a large jobber who borrowed a total of £117,000 in three loans for a month each between March and July 1825, ADM7/41:784.

The letter of "Daniel Hardcastle" in *The Times*, 20 December 1824, p. 2, was already cited, and it made some of these points. There was also criticism in Parliament, for example, through the negative comments of Hume and Baring, as reported in *The Times*, 20 February 1824, p. 2. After the crisis, when blame was being apportioned and disclaimed, the government claimed that it had nothing to do with this financial innovation, that it was the fault of the Bank alone, *The Times*, 18 February 1826, p. 2. Tooke's opinion, written two months after the peak of the panic, was only mildly negative about lending on stock, very critical of mortgage lending, and scathing on the Deadweight Annuity ([74], pp. 69–75).

 $^{^{89}}$ The Times, 23 September 1825, p. 2.

Appendix 6 of [83] gives monthly data for lending on mortgages and on stock, as well as separately to the EIC. Stock loans were around £1 million for the first half of 1825, but then dwindled to £18 thousand by the end of November, before exploding to £1.2 million in December, the result of crisis LOLR activities. Mortgage loans started 1825 at about £1 million, and by mid-1825 grew to £1.5 million, and stayed at that level afterwards. Those obviously could not be run down, and some continued for many decades.

While the general public did not show much interest in the new lending facility when it was instituted in May 1823, the EIC did⁹¹. It soon applied for a loan of £2 million, but for a longer period (with the final repayment not due until the start of 1826), at a lower interest rate, namely 3.5%, and secured not by Bank Stock, but by government bonds, namely a mix of Consols and Reduced 3% Annuities. This was granted, but it appears not to have been known to the public⁹².

A week later, another prominent financial player came calling. Rothschild applied for a loan of 3 million of Spanish dollars (also known as pesos and Pieces of Eight, and at that time also passing as legal tender in the U.S.), so worth about £600,000, with collateral of either Bank Stock or government stock. This was also approved, and was followed by a long series of similar transactions with Rothschild, all treated as private loans, and all apparently unknown to the public.

By the start of December 1825, so two weeks before the eruption of the panic, advances on stock were negligible, and the non-stock ones were primarily those to Pole, Thornton (£30,000 on bills of exchange, in addition to the £50,000 that was likely secured by a mortgage). Table 1 shows the explosion in advances during the panic week of 12 December. The non-stock ones were backed almost exclusively by bills of exchange. The stock ones were collaterized by a large variety of instruments. About a third were backed by Bank Stock, and there was a lot of Consols, Reduced 3% Annuities, and other ones. The following week, there was even an advance of £15,400 secured by South Sea Company Stock (which was a small but interesting financial instrument).

11 "Good security"

Modern central bankers not only violate Bagehot's second rule, about lending at a high rate of interest, but also the third one, about the quality of collateral. As an extreme example, in the Silicon Valley Bank panic of March 2023, American government securities were accepted at face value as collateral by the regulators, even though they were trading at only about 85% of that in the market ([44], p. 145).

What about the Bank of England in the 1825 panic? Jeremiah Harman's testimony from 1832, quoted in the Introduction, said that the Bank "were not upon some occasions over nice," which suggests they took some serious risks. On the other hand, a century later, Hawtrey contradicted Harman by claiming that "the advances ... were of a highly conservative character" ([31], p. 121). Neither Harman nor Hawtrey provided any substantiation for their claims. The evidence shows that neither was correct, but the truth is closer to Hawtrey's opinion. The Bank's loans were generally well secured. But there was one intriguing exception, that of advances on the security of Bank Stock, which was about a third of all the advances on stock.

⁹¹ It is possible that the EIC application was not connected to the policy of lending on Bank Stock, and treated this just as a private loan. The EIC had a long history of dealing with the Bank, and, as noted above, had that 29-year loan collaterized by stock that was only wound up half a dozen years before.

For conditions and approval, see CoD Minutes, 12 June 1823. The final part of the repayment of this loan came earlier than promised, on 3 November 1825, as shown in AC27/6904:2001.

Most of the liquidity that the Bank provided in the 1825 crisis was by way of "discounts," that is, buying bills of exchange. In the 5 months from the beginning of December 1825 to the end of April 1826, £298,487 of bills of exchange were not paid properly, the result of the many insolvencies in the economy, and far above the usual low levels (cf. Fig. 7 in [6]). But the Bank managed to collect £239,947 on them from their various endorsers, so its loss came to a total of £58,540 ([83], Appendix 57). The exact volume of bills discounted by the Bank in this period was (based on ADM7/41) over £25 million. So the losses came to only about 0.2% of that total volume. (By comparison, average annual realized losses on bills of exchange from 1795 to 1831 were just under £32,000 ([83], Appendix 60).) So the Bank's standards for discounting bills of exchange were not loosened very much.

What about advances? The only advance on Exchequer Bills that was found with an explicit description of the collateral (ADM7/41:916) states that a loan of £19,000 was backed by £20,000 par value of Exchequer Bills, so that was a reasonable margin, although not a very large one, as the discount on these short-term securities reached at one point 4.25% as was noted in Section 3.

Furthermore, the Bank did not relax its greater scrutiny of promissory notes as opposed to bills of exchange. As is explained in [66], bills were discounted every working day, but notes, which had a noticeably higher rate of losses, were scrutinized by a special committee of directors on Wednesdays, with customers receiving their money for the notes that were judged acceptable on Thursdays⁹³. Occasionally one finds records of some small note discounting on other days of the week, but not during any week of December 1825⁹⁴.

What about lending on stock? There seem to have been no losses on that, all the ledger entries for lending during the crisis indicate the collateral was returned to the borrowers. For about two thirds of that lending, this was very natural, as the Bank protected itself by demanding a nice margin of safety. For all the loans on stock other than Bank Stock that are listed in ADM7/41 (so in particular on Consols, Reduced 3% Annuities, etc.), the Bank lent just about 80% of the market value. Recall that the the lending program approved in 1823 and 1824 allowed only 75% of market value, so there was some relaxation, but not much. Practically all the government annuities, as well as Bank Stock, had declined in price by about 15% from mid-February of that year, so it would have taken a serious catastrophe to make the required collateral insufficient 95.

But the description above applied just to lending on government annuities. About one third of lending on stock was on Bank Stock, and there the Bank was unusually permissive. When the first program of lending on Bank Stock was set up in 1823, the

⁹³ A number of sources, e.g., ([33], p. 300) and ([46], p. 9), claim that all of discounting was confined to Thursdays, which is incorrect.

⁹⁴ During the critical week of 12 December, note discounting, all on Thursday, came to £1.659 million, which is why the total discounting figure for that day visible in Table 1 is so high (ADM7/41:325). But the restriction on note discounting is surely the reason note discounts came to only 28% of total discounts that week. They were 30% and 31% during the weeks of 5 and 19 December, respectively. A year earlier, during the week of 13 December 1824, note discounts amounted to 56% of total discounts (ADM7/41:301).

⁹⁵ To be concrete, on 100 units of Consols, which had a market price of a bit over 80, the Bank was lending about £65. The lowest price in history that Consols had experienced, during the wars with France in the 1790s, was just slightly under £50.

Bank would only lend up to 75% of market value⁹⁶. However, during crisis lending in December 1825, the Bank uniformly lent £200 against 100 Bank Stock. This might be called imprudent, as Bank Stock, which for many months had been comfortably in about the 220 to 230 range until 23 November, then slipped, and although it mostly remained at or above 200, it was involved in at least one transaction at 196 on Wednesday, 14 December⁹⁷. No documentation has been found on how this policy was established, but it was certainly a very peculiar one, and surely Bagehot would not accept it as lending "on good security."

12 Bank of England and its directors

The history of the Bank has been documented extensively, and for general information one can refer to [17,39]. Here we recall just some basic facts about the Bank directors, and then turn to a discussion of some of the previously neglected incentives they had to act as a Lender of Last Resort.

The management of the Bank was in the hands of the Governor, the Deputy Governor, and 24 regular directors. All 26 were elected annually, usually in early April. All 26 were often referred to collectively as the Bank directors, and that custom is followed in this paper.

As is well known, the directors were a self-perpetuating clique, in an already generally clubby London business world. They were connected by family and business ties. Merit was not the dominant consideration in their selection, and they generally moved into the Deputy Governor and then Governor positions by seniority. For some choice critiques of the competency of Bank directors, see, for example ([39], Chapter 5). Regular directors devoted limited time to the Bank, typically (in quiet periods) the short regular weekly meeting on Thursday, and some committee work. Only the Governor and Deputy Governor were expected to be fully engaged in the Bank, and usually served for two years in each position.

A very important factor in considering the personal incentives that drove Bank Directors is that they were selected from the merchant elite. Bankers were explicitly excluded from consideration for election⁹⁸. The directors almost universally conducted substantial ventures outside their Bank responsibilities.

That directors came from the merchant class was a reflection of the purpose for which the Bank was created. There is a famous quote of Adam Smith, that the Bank "acts,

Only two loans on Bank Stock from that period have been found in ADM7/41 and both were grossly over-collaterized. That of Sir William E. Rouse Boughton, the person whose suggestion led to setting up that loan program, was very unusual. When he first made the suggestion in May 1823, he appears not to have owned any Bank Stock. But two months later, he acquired, apparently through inheritance, 6,250 units of Bank Stock. He put all of it into the account of the Bank, and occasionally took out cash loans against it, amounting to £6,500 by early 1827. Then, in July 1827, he repaid all those loans, had the Bank Stock transferred to his account, and left it there until his death in 1857.

⁹⁷ Bank Stock was mostly over 200 in 1826, too, but with some variation, including one recorded transaction at 193 on 14 February 1826.

⁹⁸ There were some near-exceptions to that rule. Alexander Baring served as director for 9 years between 1805 and 1817. He came from the famous Baring family, and later became Baron Ashburton. But he was not a regular banker, but a "merchant banker."

not only as an ordinary bank, but as a great engine of state"⁹⁹, and many books and papers about the Bank are concerned largely with its relations to the government. (A nice example is the title of [55].) But the motivation of the creators of the Bank was to promote commerce, and the services and loans that the Bank provided to the state were the price of being allowed to function and keep various privileges.

Turnover on the Board of Directors was low, typically one or two new directors joining the board each year, and they were selected by the board. To vote, stockholders had to possess at least 500 Bank Stock ([42], p. 97), in an institution with capital (in 1825) of 14.7 million, but had just a single vote, no matter how large their investment was. Hence it would have been difficult for a corporate raider to try to oust management, and there is no record of any attempts to do so¹⁰⁰.

In the 19th century, there was no general expectations of growth in corporate earnings, especially not steady growth, and companies were valued on the basis of their dividend yield [62]. Steady dividends were prized, which of course led to substantial amount of "creative accounting." Bank of England paid 8% per year on its par value from 1823 to 1838 ([17], vol. 2, p. 428)¹⁰¹. The statistics on what was called the "Rest," and were the retained earnings, show that in the period 1815 to 1825, the Bank usually did not earn enough profit to cover its dividend, and was drawing down this reserve fund [8]. But this was not revealed to the stockholders. They only learned of the existence of the reserve fund by accident, from an affidavit in a lawsuit, and even then not its size¹⁰².

In general, investors received practically no information about earnings and assets of their corporation. At each half-yearly meeting, the directors would recommend a dividend, and this would be voted on. In the late 1810s and 1820s, it appears that at each regular half-yearly meeting, some investors (often including Ricardo, who frequently spoke at such meetings, usually to criticize various past or proposed actions of the directors) would ask for detailed accounting, but they were invariably turned down¹⁰³.

As a result, while there was grumbling from stockholders, directors were safe in their positions, as long as they maintained a stable flow of dividends. So maximizing profits was not necessarily the main considerations for directors. This was especially true because they had relatively limited personal incentives to maximize profits, as little of their fortunes was invested in the Bank.

During the 1832 Bank Charter hearings, John Horsley Palmer, the Governor at that time, was asked whether it was true that Bank directors did not have large holdings of Bank Stock. He confirmed this opinion, saying "I do not believe that any Director of the Bank

⁹⁹ [68], vol. 1, p. 387.

At some other British corporations, in particular the East India Company in the late 18th century, there were heated battles for control that involved some large investors splitting their holdings into many pieces distributed among their allies to get more votes. But such events were very rare, and do not appear to have ever occurred at the Bank.

 $^{^{101}}$ The yield on Bank Stock, based on market price, varied from about equal to that of Consols to about 0.5% per year more.

The Times, 19 March 1819, p. 3. Ricardo's estimate at the meeting reported there of the size of the retained earnings, £5 million, was in the right ballpark, the actual figure was about £4 million.

¹⁰³ In early 1816, a group that was large enough to force a formal vote obtained one, but it turned out to be 393 to 69 in favor of retaining opacity (*The Times*, 27 March 1816, p. 3).

of England holds more than [the minimum that is required to serve in his position]" ([83], Q249). There is no reason to think Palmer meant to mislead, but his claim was not exactly true. The next section presents some systematic evidence on directors' holdings, which shows there were some exceptions to Palmer's rule. However, those exceptions were few enough, so they could be cited as "proving the rule." In fact, there were some interesting features of directors' investment behavior that provide even deeper support for the obvious inferences one could draw from Palmer's statement¹⁰⁴.

Were the directors' investments exactly the minimum claimed by Palmer, they would have produced for them annual dividends in 1823 through 1838 of £4,440. (This will be documented in in the next section. It will also be shown that the actual dividend income of that group as Palmer spoke was 8% higher.) On the other hand, the total of annual salaries of the directors came to £8,000 105 . So a modest increase in Bank profits, which is the most that one could hope for, would not have affected the directors' income from their Bank engagement much, and would have generally been minor compared to their incomes from their businesses.

That Bank directors had small financial stakes in their concern was well known. For example, James William Gilbart, a prominent banker and writer on finance, mentioned it in the many editions of his *History and Principles of Banking*, starting with the first one in 1834 ([24], p. 91). Bagehot in *Lombard Street* went further. He wrote ([5], p. 41) that

... Bank directors have not their personal fortune at stake in the management of the Bank. They are rich City merchants, and their stake in the Bank is trifling in comparison with the rest of their wealth. If the Bank were wound up, most of them would hardly in their income feel the difference. And what is more, the Bank directors are not trained bankers; they were not bred to the trade, and do not in general give the main power of their minds to it. They are merchants, most of whose time and most of whose real mind are occupied in making money in their own business and for themselves.

Bagehot then went on to castigate the British political establishment for not imposing on the Bank a requirement to maintain a larger reserve, and allowing the directors to be "agents for a proprietary which would have a greater income if [the national reserve] was diminished," and "who do not fear, and who need not fear, ruin, even if it were all gone and wasted." These passages reflect Bagehot's near-obsession with the Bank's reserve, and its effective role as the reserve for the entire British financial system¹⁰⁶.

Lombard Street has much more about the deficiencies of Bank management, and some proposed reforms. For us, it is important to note that Bagehot was right about Bank directors being "City [that is, the commercial heart of London] merchants," as bankers

Much of this was known even before Palmer's 1832 testimony. At the March 1824 stockholder meeting, in response to an investor's question, several directors said that they and their colleagues had only the minimal required stock holdings, and that a Governor, on leaving that office, would sell the 2,000 of Bank Stock that he no longer needed, once he became a regular director. This was said to allay concern directors might be using their inside knowledge to trade on Bank Stock. (The Times, 19 March 1824, p. 4.)

 $^{^{105}}$ The Times, 30 March 1882, p. 11.

¹⁰⁶ This preoccupation was shared by many other observers of the time, and was to a substantial extent based on a misunderstanding of the role of various deposits at the Bank, but that is not relevant for us.

were explicitly barred from serving as directors. However, it is even more important to note that he was wrong on several other points. Directors were not always very rich, and even in cases where the loss of their Bank investment was not material, they had a strong interest in preventing the Bank from ruin, and from maintaining the stability of the financial system. This is something that Joplin understood, even though Bagehot did not. Joplin wrote that the directors, "as merchants . . . were deeply interested in adopting any course by which the pressure could have been removed" ¹⁰⁷. Warren Buffett's famous quote says that "only when the tide goes out do you discover who's been swimming naked," referring to financial crises as ways to discover which companies are unsound. As is shown in this paper, many Bank directors turned out to be "swimming naked," often even when the tide was rising.

Bank directors often operated on the edge of insolvency, or even beyond. The frequency of Bank directors going bankrupt was alarming to many observers. Unfortunately there is no comprehensive study of the failures of Bank directors, nor of their wealth. But it might be instructive to cite a few cases.

When William Robinson, who had been elected Governor in April 1847, declared bankruptcy in August of that year¹⁰⁸, *The Times* used this occasion to note in its financial column¹⁰⁹ that

[t] he failure of a Governor of the Bank of England is unfortunately not an event so novel as to create the surprise which should properly be consequent upon it. Within the last eighteen years, if we recollect rightly, no less than six parties who have either been actual or past occupants of that position have fallen, not merely into insolvency, but in the majority of instances have exhibited in the subsequent winding up of their affairs a long-continued course of mismanagement (to use no harsher term), such as is rarely met with in the ordinary course of mercantile disasters. This frequency of discredit in one particular class of persons can scarcely be the result of accident, and the inquiry will now naturally arise a to the particular causes in which it may have its origin. Whatever may be the result of that inquiry—whether it shall prove that the duties of a Governor of the Bank are such as to preclude a proper attention to other and private business, or that reliance upon the position is found to tempt to an undue use of credit, or that the selection of directors (and, consequently, of those who rise by rotation to the chair) is not usually made with sufficient reference to the capability of the party to manage either his own affairs or those of a corporation—it can hardly fail to render irresistible a conviction which has long been growing up, that the adoption of some new system in reference to the mode of appointment is essential both to the welfare and to the respectability of the nation.

¹⁰⁷ [34], pp. 13–14. A fuller citation is in Section 5.

This was after the minor financial crisis of the spring of 1847, but before the major one of October 1847 that led to the first suspension of the Bank Charter Act of 1844.

¹⁰⁹ 23 August 1847, p. 3. It was surely written by its financial editor, Marmaduke Blake Sampson, who took over that position at the end of 1846, and would be one of the most respected and by far the most influential financial journalist of the third quarter of the 19th century. For a brief note about Sampson, see ([73], pp. 543, 595–96). Sampson called for a thorough restructuring of Bank management, but that is not relevant for this paper.

In Robinson's case all creditors were paid in full. The Times in the piece cited above expressed a view that recovery would be only partial, while 5 days later the Economist suggested that Robinson's private estate would cover all deficiencies. In the end, the liabilities of £94,000 were indeed covered with £6,000 to spare, but only because liquidation of Robinson's estate provided £43,000¹¹⁰. So in this case Robinson's stake in the Bank, worth around £8,000, was only about 8% of the value of his business and personal property.

In other cases, the end was not so satisfactory for creditors. In 1834, the failure of the Governor, Richard Mee Raikes, involved claims of about £100,000 against total assets of about £15,000 111 .

It seems worthwhile to quote *The Times* on another bankruptcy of a Bank director, that of Cornelius Buller. He started serving on the board in 1803, and was Deputy Governor and then Governor from 1822 to 1826 (so, in particular, was Governor during the 1825 crisis). He failed in early 1831. The financial column of *The Times* had the following to say about this case, and also about Bank directors in general¹¹²:

He is of very old standing in the direction of the Bank, having passed the chair several years ago, and consequently being a member of the "Committee of Treasury," with access to all the important and secret operations of that corporation, which invariably originate with such committee. As a mercantile failure the affair is of little moment, the house having long ago reduced its transactions within very narrow limits. The whole extent of its outstanding obligations we have heard stated as low as [£30,000]. With regard to the speculations in the funds, they are of no great extent, the differences against him not amounting, it is said, to more than [£2,000], but no small scandal has been caused in the city by the discovery that a Bank Director, whose official knowledge gives him a great advantage over other merchants, has entered into any such speculations at all. The uninitiated have always been led to believe that the Court was quite incapable of engaging in similar transactions. His speculations have, no doubt, proved very injurious to other persons besides himself, for, independently of the loss sustained by the brokers he employed, who are responsible, according to the rules of the Stock-Exchange, for his transactions, those who were in his confidence would be induced to follow his example, on the strength of his characted and supposed access to official information. A Bank Director would be presumed cognizant of numberless circumstances likely to affect the value of the funds, and in which consequently his movements would take place with nearly the absolute certainty of success.

This passage suggests that informed opinion in commercial circles was that Bank directors' positions gave them access to information not available to the public, and that they were free to use it for their purposes, and that this was valuable. (This was in the days when conflicts of interest were tolerated, even officially, much more than today.) That directors failed in spite of such advantages could be taken as a sign of either recklessness or incompetence.

 $^{^{110}}$ [20], Appendix, pp. lxxiv–lxxv.

¹¹¹ The Times, 21 October 1834, p. 4.

¹¹² The Times, 28 March 1831, p. 3. The writer was undoubtedly Thomas Massa Alsager, mentioned in Section 8.

Ricardo anticipated Milton Friedman's dictum that management's only duty was to maximize profits when he spoke in the House of Commons in 1819 about Bank actions¹¹³:

[The Bank] had continued their advances to the Chancellor of the Exchequer, ... it would be said that they had done this for the public interest; but the protection of the public interest was not their business; it was that of his Majesty's ministers. (hear.) [A director of the Bank] had talked of the accommodation which they had furnished to government, and the sacrifices they had made at different times for the country at large. Now he gave them no credit whatever for those sacrifices. It was their duty to attend to the business and promote the interests of the Bank proprietors. He had been much astonished at the small amount of their [retained earnings] This was now explained, for they had thrown away a million here and a million there, for the purposes, as it appeared, of protecting the public. ... To revert to the subject of the advances to government, he must ask why were they made? He could only ascribe it to the strong propensity to the Bank directors to act as ministers. (a laugh.) If they would give up this anxiety about the state, and attend only to their own interests, things would go on much better. (hear.)

However, his demand (or advice) was ignored.

13 Bank of England directors and their Bank investments

The usual pattern was that a new Bank director would serve for two years, be off the board for a year, and then start the cycle again by coming back for two years. Eventually, in order of seniority, he (and they were all men until well into the 20th century) would be elected Deputy Governor over two years, and then Governor over the next two years. After serving as Governor, a director would become a member of the important Committee of the Treasury, and would be elected annually until death, retirement, or bankruptcy (fates that were also common to many directors who did not attain the two highest levels in the Bank).

A director had to own in his own right at least 2,000 of Bank Stock. For Deputy Governor the requirement was at least 3,000, and for Governor it was 4,000. The investments of directors as they moved into and out of the two highest Bank offices are therefore of interest, and provide more evidence that they generally invested the minimal amount required by their position.

On 31 May 1832, Palmer told the 1832 Bank Charter Committee that he thought Bank directors held only the minimal amount of Bank Stock that was required ([83], Q249), which would have been a total of 55,000 Stock ($24 \times 2,000 + 3,000 + 4,000$). The actual total holdings on that day amounted to 59,500, which was 8% larger. His Deputy Governor held 4,000, and three ordinary directors 4,000, 3,000, and 2,500, respectively¹¹⁴. The other 21 ordinary directors and Palmer himself adhered to his rule, and held just the bare minimum.

The Times, 25 May 1819, p. 3. His speech should be placed in a wider context, but to do that properly would require too much space. Suffice it to say that Ricardo had been critical of the Bank for a long time, and was advocating a move similar to that effected by the Bank Charter Act of 1844, which split the Bank into two parts, with rigid division between them.

¹¹⁴ This total was about 0.4% of Bank's capitalization, so the directors had an insignificant fraction of that.

The above data emerges from a more extensive study of Bank Stock holdings of Bank directors, which provides some additional interesting insights. This investigation was based on considering holdings of two sets of directors¹¹⁵:

- directors who were elected in 1815 or 1816 and had last names starting with A through
 C, holdings between October 1815 and October 1831 (ledger AC/513)
- all directors elected in 1831 or 1832, holdings between October 1831 and October 1845 (ledgers AC/520 through AC/523)

There were 5 names in the first set. The second set had 34 names, but only 33 accounts were available for investigation, since William Manning was elected in April 1831, but went bankrupt in July of that year. His account was apparently liquidated before the relevant ledger was started.

There was one person on both lists, John Bowden, and he presents one of the few counterexamples to the statement made by Palmer to the 1832 Bank Charter committee. He served as Bank director (with the usual one-year absences) from 1803 to 1841. In October 1815, his account starts with 4,000 Bank Stock (so more than the 2,000 he was required to hold). In mid-1816 he received a 1,000 stock dividend (his part of the dividend of 25% of current holding distributed to all proprietors), and he sold that 1,000 in 1822. He retained 4,000 in his account until it was liquidated after his death in 1844. He served as Deputy Governor and then Governor from 1820 to 1824, but his outsized investment meant he did not have to buy any more Bank Stock to qualify for those positions¹¹⁶.

The general pattern was for a regular director who was about to be put up by his fellow directors for election to Deputy Governor to purchase additional 1,000 Stock, then, two years later, when he was about to be elected Governor, to purchase the additional required 1,000. Soon after stepping down to become a regular director, he would sell the excess 2,000 Stock. Thus, for example, John Horsley Palmer, one of the most famous and most influential Bank directors of the 19th century, shows up in October 1831 in AC27/522:1648 with 4,000 Stock, reflecting his position as Governor at that time. However, once he left the governorship in April 1833, he sold the extra 2,000 Stock on 2 May 1833, and retained the standard 2,000 stake, with no changes, until October 1845, when that ledger ends¹¹⁷.

A more complete picture is presented by the account of James Pattison. Originally elected to the board in 1813, he shows up in AC27/522:1648 in October 1831 with 2,000 Stock. He added 1,000 Stock on 15 April 1833, just one day before being elected Deputy Governor. Half a year later, so before he was required to do so, he purchased another 1,000 Stock, so that he did not have to buy any more when he was elected Governor on 10 October 1834 (replacing Richard Mee Raikes who went bankrupt a short while earlier).

Selection was based on available data. Complete records are available in the Bank Archive, but this author did not have a chance to visit it during the preparation of this draft. Investigation was therefore based on copies of ledger entries that had been made earlier, for another project. Lists of directors elected in given years were taken from [7].

 $^{^{116}}$ Bowden's account in the 1815–1844 period is covered in AC27/513:89 and AC27/520:117.

The entry for Palmer's account in the next set of ledgers, which cover 1845 through 1861, in AC27/530:1056, shows the same balance retained until the entire amount was sold on 2 February 1858, 5 days before his death. He had left the board in April 1857. He first joined the board in 1811, but details of his Bank holdings before 1831 have not yet been documented, although they are certainly in the Bank Archive ledgers.

When he completed his turn as Governor on 4 April 1837, he sold the excess 2,000 Stock 6 days later, and continued holding that until 1845 (and likely beyond, as he died in office in 1849).

Junior directors, who normally served two years out of three, generally retained their 2,000 Stock during the one year they were not on the board. But sometimes they liquidated that stake during the year they were not on the board, and repurchased it just before they were elected back to the board. John Cockerell exhibited this behavior with a slight twist. When he went off the board on 9 April 1834, he sold his entire stake of 2,000 Stock on 15 April. However, on 16 October of that same year the board recommended his re-election to fill a vacancy that had occurred 118. To make the election legally possible (which occurred a few days later at a proprietors' meeting called for that purpose), on 17 October he bought back the required 2,000 Stock.

There were a few cases in which directors acquired Bank Stock beyond what their position required, possibly through inheritance or other means. They generally disposed of that quickly. In general, there were very few transactions involving Bank directors and Bank Stock. There was just one clearly purely financial operation, which involved by far the largest Bank Stock holding by a director that was seen in this study. James Campbell had gone off the board in April 1825 (and would return to it the following year). He retained his standard 2,000 Stock stake, but on 22 October 1825 he obtained additional 10,800 Stock from Rothschild, and he returned it to Rothschild on 27 November. This must have been a repo loan by Campbell to Rothschild, of the kind that the Bank would engage in on a large scale in mid-December at the height of the crisis. It would have been nice to learn the details of this transaction.

Thus the general conclusion is that Bank directors generally did behave according to the Palmer rule, holding only the minimal amount of Bank Stock that was required. Hence they clearly did not regard Bank Stock as a desirable investment for their own fortunes, and this likely made seek the good of the entire financial system. As usual, it is hard to tell precise motivations of a large group of people, especially when we can only observe occasionally the results of their votes. In this case, it is also not clear which way causality runs, whether the Bank did not maximize profits because directors had small stakes in it, or whether they had small stakes because they knew that profits were not going to be bountiful.

It should be noted that Bank directors had their names on many joint accounts. As is explained in [53], those usually were trust accounts, for a wide variety of trusts. Bank rules meant that only a few chartered entities could have accounts in their names, all others (charitable organizations, banks, insurance companies, as well as family trusts for minors, say) were in the names of a maximum of 5 trustees¹¹⁹. Since stability was paramount for trusts, this indicates that Bank directors believed that this was what Bank stock offered. Thus they had additional incentives to provide such stability.

¹¹⁸ Board of Directors Minutes, 16 October, 1834.

A challenge for investigators using Bank ledgers is that usually there is no indication what entity those accounts are for, as only the names of the trustees are given. The holdings of such an account were transferred to another one when even a single trustee changed, so many entries in the ledgers represent not real financial transactions, but changes in trustees.

14 Henry Thornton and the Bank of England

As is true of many observations about banking and LOLR, Henry Thornton usually anticipated later writers such as Joplin and Bagehot with his insights. For example, as was cited at the beginning of Section 3, Joplin had a pithy summary of conceptual problem faced by Bank directors as well as public policy makers and other observers in the panic of 1825, one that very effectively points out what central banks should do in crises. The same basic idea was already expounded by Thornton in 1797 ([78], pp. 72–3), and then also in his famous book of 1802 [71], but not in such a crisp format. (It has to be admitted that Joplin's letters to the *Courier* during the 1825 crisis also were not as succinct and to the point as that formulation from the early 1830s.)

Similarly, Thornton not only advocated that the Bank should act to preserve stability for the general public good, but that this was also in the self-interest of the Bank and its proprietors. Thus he went beyond Joplin's observation that it was in the directors' personal interest to do this. Thornton claimed it was the self-interest of Bank stockholders that drove them to elect directors who would look out for the common weal. In particular, he wrote ([71], pp. 67–8) that

[i]t may be mentioned as an additional ground of confidence in the Bank of England, and as a circumstance of importance in many respects, that the numerous proprietors who chuse the directors, and have the power of controlling them (a power of which they have prudently forborne to make any frequent use), are men whose general stake in the country far exceeds that particular one which they have in the stock of the company. They are men, therefore, who feel themselves to be most deeply interested not merely in the increase of the dividends or in the maintenance of the credit of the Bank of England, but in the support of commercial as well as of public credit in general.

There is a very puzzling aspect to this message. Thornton wrote as if Bank stockholders were actively selecting their directors, whereas, as was discussed before, as far we can tell, and as far as contemporary observers claimed, elections were a formality. Thornton's language might be correct if there was a clique of powerful merchants involved in selecting the one or two new directors who got elected each year. Thornton was one of the most connected and most informed financiers in London (but not eligible for a Bank directorship himself in view of his position as a banker) and his older brother Samuel was a director of the Bank for almost the full period from 1780 to 1836 (and Deputy Governor and then Governor from 1797 to 1801). So he would surely be aware of any such behind-the-scenes maneuvers, which are not inconceivable in the clubby world of London business. But this is not consistent with other passages in the same chapter of his book, where he talks of most stockholders having small stake, and implies that this fact influenced the director candidates that might be favored.

Leaving this puzzle unsolved, the point is that Thornton, just like Joplin a couple of decades later, felt that that people with direct financial interest in the profits of the Bank had even greater financial interests in keeping the entire system running smoothly.

15 Conclusions

This paper provides a more detailed description of the proceedings of the Bank at the peak of the crisis of 1825 than has been available before. A number of mistakes in published accounts of that event are corrected. It is shown that the steps it took that were regarded as dramatically novel had actually been experimented with by the Bank earlier in a surreptitious manner. The credit that is sometimes given to Thomas Joplin and Vincent Stuckey for instigating those steps seems substantially exaggerated.

Bagehot's praise for the Bank's actions in 1825 needs to be treated with caution. The Bank for the most part did not follow the famous Bagehot's rules. In some cases this was because of the legal restraints on interest rates. But in at least one case (lending on Bank Stock) this was for no obvious reason, although what it did would surely have been regarded as reckless by Bagehot.

It is also shown, with quantitative evidence, that Bank directors had very little personal interest in maximizing Bank profits, but substantial interest in maintaining the stability of the financial system. This provides a slightly different view of the motivations that drove decisions by the Bank, which, even before 1825, was more of a LOLR than is commonly thought.

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https://www-users.cse.umn.edu/~odlyzko/doc/mania-ack.html

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