The Crisis of 1866

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Abstract:

The collapse of Overend Gurney and the ensuing crisis of 1866 was a turning point in British financial history: this was the last time a serious disruption took place in the London money market until 2007-8. The achievement of relative stability was due to the Bank's willingness to offer generous assistance to the market in a crisis, combined with an elaborate system for discouraging moral hazard. The Bank's assistance was not anonymous because it monitored the names on its discounted bills. When Overend Gurney sought extraordinary assistance from the Bank, their request was refused on the grounds that the bills offered did not comply with standard eligibility rules. The Bank's refusal forced Overend to suspend payments and there was a general panic in the market. The Bank responded by lending freely and raising Bank rate to very high levels. The new policy was crucial in allowing for the establishment of sterling as an international currency. When in 1890 Baring Bros got into trouble, however, the Bank reacted differently and set up a bailout of the failing institution. Such such a contrasting attitude was dictated by the dissimilar position occupied by Overends (a bill broker) and Barings (an accepting house) within the London money market.

JEL: E42, E58, F33, N13.

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The so-called Overend-Gurney crisis of 1866 was a major turning point in British monetary and financial history. Following the emergence of a modern financial system in the 18th century, the country had been plagued by recurrent panics. In every decade of the 19th century until the crisis of 1866, there had been a point when, following a phase of credit expansion and "speculation", market conditions had deteriorated, and the money market seized. 1866 was just one more run in a series that included, among the most infamous, 1825, 1837-39, 1847, 1857. Yet the run that began in May 1866, was to be the last of that variety to occur in the United Kingdom until the outbreak of WWI. The only two relevant episodes of financial stress that occurred between 1866 and 1914 (1878 and the "Baring crisis" of 1890) did not have much in common with previous financial shocks neither in virulence nor in nature, since – unlike the previous crises – they were not accompanied by dislocations of the money market.

This surprising feat has fascinated economists and historians alike, and they have sought to understand its reasons. All eyes have been rightly turned towards the Bank of England, but what exactly were the actions that planted the seeds of financial stability remains disputed. Fetter (1965) characterized the 1870s as the era that saw the "victory of the Bagehot principle" during the 1870s (Fetter 1965). According to Giannini (1999) the newly acquired stability of the British financial system owes to the Bank of England's new willingness to undertake lifeboat operations (also see Mahate 1994). According to others, Britain's new financial resilience owed to consolidations in the Bank's macro-policy including its adherence to the Gold Standard (Schwartz 1987, 1995): Restrictions on the Bank's discretionary power over the issue of high-powered money (the Gold Standard's "rule") would have stabilized the system by improving agents' ability to make forecasts. Still others emphasize micro-prudential aspects of crisis management, such as the emergence of automatic, anonymous lending on recognizably good collateral. For instance, according to Capie's frosted glass discount window metaphor (Capie 2002, pp. 310-1), the Bank's discount window was raised high enough to examine the quality of the collateral, without revealing the identity of the discounter: The central banker "does not know, nor does he care, who is on the other side of the window. He simply discounts good quality paper or lends on the basis of good collateral". Other arguments emphasizing micro-prudential features include Calomiris (2011), who argues that the Overend-Gurney crisis served to establish the Bank of England's credibility and ability to act in a fully discretional way. The episode rebutted the principle of "too-big-to-fail"

and signalled the Bank's decision to terminate "the put option inherent in the Bank's willingness to accommodate demand".[1]

This chapter discusses what really happened in 1866. For one thing, Bagehot (1873) never advised central bankers to engage into "lifeboat operations". He advised them to provide generous lending – essentially, to do away with credit rationing which had prevailed in previous crises. As recent research has shown, 1866 was indeed a watershed (something Bagehot himself had recognized). In 1866, the Bank had in practice – if not officially – acted as a lender of last resort, abstaining from credit rationing and as a result effectively becoming the place where the crisis was resolved (Bignon, Flandreau, and Ugolini 2012). Using new statistical evidence from previous joint research (Flandreau and Ugolini, 2013) this chapter goes one stage further and provides a fuller characterization of the events in 1866 and of the revolution that occurred then: In contrast with Capie, we argue that Britain's actual recipe for financial stability was the Bank of England's adoption of a principle of generous provision of *non-anonymous* lending. In other words, the Bank's window was fully raised so that the Bank could see the face of the discounter. The Bank was prepared to provide credit only to the extent that it liked what it saw. This meant that the counterparty had to abide by a number of behavioural norms: At the same time the Bank lent generously, it also performed strict monitoring over the banking system and thus protected itself against moral hazard. Tightened supervision and generous lending were the two sides of the new currency.

The remainder of the chapter is organised as follows. Section 1 reviews the structure of the English financial system on the eve of the Overend-Gurney Panic. Section 2 analyses in detail the Bank of England's actions during the crisis. In the light of this evidence, section 3 provides a characterization of Britain's newly formed approach to financial stability. Section 4 emphasizes the international aspects of the new policy adopted in 1866: We argue that the new policy helped entrench sterling as an unrivalled international currency. The conclusion sums up the findings and provides a comparison between the events in 1866 and the Baring Crisis of 1890.

[1] Rejection of the too-big-to-fail principle is also a central theme of Capie (2002). One paper skeptical about the Bank of England's role in fostering financial stability is Batchelor (1986). He argues that after 1866 there was an increase in the amount of information available to the public concerning the quality of collateral held by the banking system.

1. The Structure of the English Financial System on the Eve of 1866

Since the early modern era, European financial systems had been developing around a particular form of money market instruments: bills of exchange. Bills were negotiable promissory notes bearing multiple guarantees: bound to be paid at maturity by one person (the "acceptor" or insurer) who had agreed to certify the quality of the original debtor (the drawer), they were also secured by the signatures of all the people who had previously held and resold them (the endorsers). The bill market flourished in England during the Industrial Revolution, and specialized intermediaries (the bill brokers) started to emerge at the beginning of the 19th century.

According to King (1936), the centrality of bill brokers within the system was established following the crisis of 1825 (initially known as "The Panic"). During this crisis, rampant credit rationing by the Bank of England made major London banks – which were heavily invested in bills – experience a serious maturity mismatch, which forced them to suspend payments. Scared by this episode, commercial banks vowed never to find themselves in the same situation again: Instead of keeping all of their assets in bills, the banks started to deposit large amounts of money "on call" with bill brokers, to whom the liquidity risk was shifted. This very episode transformed the English financial system into one which was unlike any other. Bill brokers (or "discount houses", as they came to be known later on) evolved from being brokers to being money market funds, taking deposits from banks and investing them directly (on their own account) in the bill market. In normal times risks were limited, and so were margins, encouraging substantial leverage: According to King (1935), the ratio of total assets to capital hovered around 10 in the mid-19th century, and this was typically larger than what a "typical" bank would do.

This is how Britain's variant of the modern "shadow banking system" was born. Initially, the Bank of England saw favourably an evolution, which was supposed to help it manage the money market at arm's length through the rediscounting system. However, relations gradually deteriorated. According to Wood (1939) this was caused by the Act of 1844, which sanctioned the private company character of the Bank. Encouraged to compete directly on the discount market, the Bank started to see bill brokers as challengers and its own rediscount facilities as a free lunch provided to these challengers.

Figure 1 summarizes the basic features of the English financial system as it had been evolving after the turning points of 1825 and 1844. In this system, credit seekers obtained funding by drawing bills which, once accepted by specialized merchant banks (or "acceptance

houses", as they came to be known later on), were sold (or "discounted") on the money market. This was the hunting ground for bill brokers, who sought a profitable re-employment of the funds deposited with them by commercial banks – which, in turn, collected deposits from the general public. As Figure 1 shows, the Bank and the bill brokers competed against one another and it is plausible that this competition was one aspect of the tensions that grew steadily between the Old Lady of Threadneedle Street and the bill brokers – in particular the biggest and most "prestigious" of them all, Overend, Gurney & Co. – setting the stage for the final denouement of May 1866 when the Bank refused to bail out "Overends".

The deteriorating relation between the Bank and the bill brokers (and principally Overends) cannot be solely explained in term of commercial rivalry. Because bill brokers were money market specialists, the Bank of England could, to some extent at least, "outsource" to them the screening of bills and just rely on the guarantee provided by them. Moreover, the generosity of bill brokers set the conditions of the money market: Attempts by the Bank of England to, say, tighten money market conditions could be frustrated by bill brokers' expansionary policies. In other words, the bill brokers had both a prudential role and a monetary policy role. The Bank of England's need to make its rate "effective" in order to protect the gold reserve (a big theme of the 1850s) ran against this circumstance, and contained seeds of discord.

The conflict between the Bank of England and Overend, Gurney & Co. became overt in the aftermath of the crisis of 1857. During this panic, bill brokers resorted extensively to the Bank's rediscounting facilities, and Bank's directors started to think that the inherent inconsistency of the system had reached breaking point. By the end of November 1857, the Bank held £1.2m in bills rediscounted to Overends, which amounted to 3.37% of its total portfolio of commercial securities[2]. This number might look unimpressive, but it reflected a broader patterns among all bill brokers, and this is what was perceived as unbearable. The argument was that, had the bill brokers refrained earlier from reckless lending, the crisis would have been avoided. Bill brokers should have reduced leverage by keeping higher cash reserves and it was their automatic access to the Bank's discount window that created moral hazard. To provide incentives in this direction, in March 1858 it issued a public statement which announced its willingness to shut down rediscounting facilities to bill brokers, except in exceptional circumstances. The press personalized the move as directed against Overend, Gurney & Co., and commented unfavourably (King 1936, pp. 202-3). Overends felt strong enough to indulge into retaliatory action: in April 1860, they orchestrated a mini-run on the

[2] Authors' computations on Bank of England Archive C25/3 and *The Economist* (21st November 1857).

Bank of England by building a position there and suddenly withdrawing £3m banknotes, thus creating disturbances in the money market. However, according to Bagehot (1873, p. 299) the attempt failed to achieve its probable objective of strengthening the bill brokers' case by exposing the vulnerability of the Bank of England: Instead, he says, the attack on the Bank's reserve made Overends unpopular with the City.

Figure 1 about here

2. Bank of England Lending during the Overend-Gurney Crisis

The aftermath of the crisis of 1857 saw a considerable expansion of discount houses and joint-stock banks, which King (1936, p. 217) associates with the Companies Act. Another relevant aspect of the boom was the internationalization of the bill market (Hughes 1960). The massive expansion in international trade during the 1850s conspired London's comparative advantage in trade finance to encourage the multiplication of originators (merchant or joint stock banks) and money market funds (bill brokers). Those with foreign connections and a London base could make large profits because they could take advantage of local information and London facilities. Figures provided by Roberts (1992) for Schroders, a merchant bank with contacts with the Continent and the US, suggest that in the early 1860s the profitability of acceptances was enormous – between 4 and 6% of the amounts accepted. Figures quickly declined afterwards, possibly reflecting the effects of competition.[3] The result was internationalization of the London money market – sterling acceptances becoming a funding and investing vehicle of choice.

As was bound to be the case, not all those joining the craze were prudent: Many sought to enhance returns by investing short-term resources in long term or illiquid resources. Overends bucked the trend, and in the early 1860s they got increasingly invested in speculative-grade bills: as one investment after the other failed, they ended up with non-performing assets and

[3] Figure computed using data provided by Roberts (1992,p p. 527 and 532). Acceptances were for a few months (typically 90 days), so that to compute the annual rate of return, one must compare annual revenues from acceptances and acceptances outstanding on the balance sheet at the end of the year (assuming they were essentially rolled over). Data for the early 1860s also include consignments made by Schroders: Controlling for these on the basis of later proportions gives the lower bound reported. Note that technically, acceptances appeared for the same amount on the asset and liabilities side of the balance sheet, and it was understood that some capital had to be set aside to meet contingencies.

their liquidity declined.[4] In an attempt to attract fresh capital, the partnership was transformed into a limited liability company and floated on the stock exchange in 1865. Bagehot (1873, pp. 274-5) saw this move as the real cause of the firm's eventual fall, because henceforth losses became of public knowledge and its reputation got irremediably tarnished. Further shocks included a long period of high interest rates in London, which exacerbated the company's refinancing difficulties (figure 2), the stock market collapse of late 1865 and early 1866, and the failure of a number of customers. Calls to other bankers were unsuccessful and, in a last ditch effort, the Bank of England was approached in early May, but the "Governor took the view that the Bank could not assist one concern unless it was prepared to also assist the many others which were known to be in similar plight."[5] This was decided after a confidential report was commissioned to investigate whether assistance by the Bank or a consortium of London commercial banks was an option. At 3:30 p.m., May 10, 1866, Overend Gurney & Co. suspended payments. The immediate reaction was described as the "wildest panic". Contemporaries compared the event to an "earthquake". From King (1936, p. 243): It is "impossible to describe the terror and anxiety which took possession of men's minds for the remainder of that and the whole of the succeeding day."

Figure 2 about here

How did the Bank react to the panic? In the months preceding the crisis, market interest rates had almost constantly coincided with the Bank's discount rate. This was evidence of money market tension, which the Bank was nonetheless accommodating (Bignon, Flandreau, and Ugolini 2012). After the announcement of Overend's suspension, the official discount rate was raised from 7% to 9% and then 10%, but again, the market rate never exceeded this threshold (figure 2). In other words, the Bank continued to meet the considerably increased demand for cash. Both channels through which the Bank provided liquidity to the banking system – discounts of bills and advances on securities (including "parcels", i.e. bundles, of bills) – were heavily resorted to, and very few demands for cash were rejected (figure 3). In other words, the Bank was not losing its cool and continued to inject liquidity in the system.

Who was coming to the Bank's standing facilities? There comes an interesting finding: In spite of the official ban of March 1858, bill brokers dominated the stage. They were, by far, the biggest users of the discount window (figure 4a) and they resorted heavily to the advance

[4] See Xenos (1869) for an informed – but not fully impartial – account of Overends' unhappy Greek investments.
[5] King (1936, p. 242).

facility – where, however, commercial banks held the lion's share (figure 4b). The notable feature of the episode is that bill brokers and commercial banks were *not* usual customers of the Bank, which in "normal" times used to have only merchant banks and trading houses coming to its discount window (Flandreau and Ugolini, 2013).[6]

Figures 3, 4a, and 4b about here

What were applicants bringing to the Bank in exchange for cash? The composition of discounts, for which precise information is available, provides some elements of answer. The broad answer is: The same material as usual. If we sort out the paper discounted by the Bank in May 1866 according to acceptors (i.e. the firms which, after having been drawn upon, had underwritten the bills and thus bore the "initial" responsibility) and then compare it to the situation one year earlier, we get a very stable composition of the underlying material. To the extent that acceptors had to be rated for their paper to be recognized by the Bank of England, this implies that the underlying quality of the material they accepted was very stable. Tables 1a-b illustrate this. They give the Bank's twenty-five biggest exposures to acceptors (amounting to 39.5% of the total) in May 1866 as well as one year before the crisis. The shares and ranking of acceptors did not change considerably. Paper that was discounted by the Bank in normal times could be expected to be discounted during crises.

Tables 1a-b about here

To summarize, it appears that when the panic erupted, the Bank merely continued to do its "usual" business – although on a much grander scale. It kept lending, only it did much more and met demand for liquidity from all sides (despite the 1858 ban of bill brokers from the discount window). Next, underlying this "continuity" of operation, the nature (and thus quality) of the instruments considered eligible for refinancing operations did not change during the crisis. Guarantors (acceptors) deemed reliable before the crisis remained so during the crisis. In fact, as we also found, even in those cases in which the guarantee turned out to be dubious later (when the acceptor failed as a result of the crisis, as in the case of the Agra &

[6] It is interesting to note that following its going public and diversification of its business into a financial conglomerate in the 1860s, Overend, Gurney & Co. had no longer been considered by the Bank as a "bill broker" – its account being transferred to the commercial banks' ledger since 1865 (Bank of England Archive, C24/1). This means that, already by this time, Overend was formally outside the scope of the 1858 rule, implying that the reason for refusing support had nothing to do with the rule itself.

Masterman Bank or the Consolidated Bank), the Bank of England adhered to the principle whereby it sustained its earlier policy. This supports the notion that a key aspect of crisis lending was indeed the question of the instrument upon which it lent, perhaps more than the identity of those to whom it lent. Indeed, it turns out that, among the discounters who received the biggest volumes of Bank's liquidity, were some of the main casualties of the crisis (such as Agra & Masterman or the Bank of London). At first sight, this is consistent with Capie's idea that the important question for lending of last resort is "What do you accept?" – not "From whom?". However, as the next section shows, the "what" and "from whom" issues are more intertwined than a superficial reading of the crisis of 1866 would suggest.

3. The Raised Eyebrow: From Lending of Last Resort to Banking Supervision

Although generally originated in the course of commercial transactions (such as for the finance of physical commodity shipping), bills of exchange were not backed by a physical security. In case of default of the acceptor, the holder of the bill had the right to turn to previous endorsers, but in no case could they seize (say) the bales of cotton collateral that might have been mentioned on the bill.[7] Hence, the "value" of a bill of exchange consisted of the names written on it and of those names alone. Exposure was exposure to names, and this meant that – willy-nilly – the Bank actually *had to know and to care about* who was on the other side of the discount window: "what" and "whom" were the two sides of the same coin.

This helps explain the sophisticate system the Bank of England developed in order to monitor discounting risks. First, not anybody could be a discounter. This was a privilege and admittance in the discounters' list required being presented by other members of the club and provide material guarantees.[8] Second, risk management took the shape of a system of ledgers that permitted a real time control of exposure: Each bill that the Bank took in portfolio gave rise to two entries – one for the acceptor who had underwritten the bill, and one for the discounter who had presented it.[9] By examining its ledgers, the Bank could see at a glance its exposure to any given signature. The quality of acceptors was periodically reviewed and

[7] Seyd (1868, pp. 81-3).

[8] "Membership" shrank dramatically throughout the 19th century (Bignon, Flandreau, and Ugolini 2012). However, it seems that this owed to the consolidation of the banking system, not to the Bank striking out previous customers.

[9] It also recorded information on drawers. See Flandreau and Ugolini (2013) for details.

recorded in so-called "rating books". The evidence from the rating books also suggests that there were thresholds for exposure to any single risk (Bignon, Flandreau, and Ugolini 2012).

The arrangement, which if we are to believe ledgers expanded after 1844, allowed the Bank to implement a close monitoring of the financial system. This monitoring was hardly anonymous. It enabled the Bank to keep a close eye on both the origination and the distribution of bills of exchange across the system (Flandreau and Ugolini, 2013). Critically, this allowed the Bank to observe when potentially speculative positions were in the course of being built by abnormal drawing or accepting of bills. Suppose for instance that some acceptor relaxed its standards and began accepting more paper than its capital permitted. The signature, thus indiscriminately thrown upon the market would have flowed back to the Bank of England, who would have immediately noticed the problem. For instance, in 1890 the Bank realized that Barings were getting into trouble long before the crisis, because the amount of Baring-accepted bills flowing into its portfolio through third-party discounts had become unusually large. The result were exchanges whereby the Bank of England pressured Barings to fall into line.[10] The strategy may not have worked, but such monitoring made sure that the Bank would not be caught sleeping at the wheel (more on this in the conclusion).

This sheds light on the Bank's attitude towards the financial system and in particular, towards Overend, Gurney & Co. during the crisis of 1866. By controlling its exposure it limited the amount of credit that could be granted to any single individual: It was not enough to present paper on an acceptable signature, one had also to make sure that not too much of this paper would be presented to the Bank. Thus, if for any reason one financial agent had excess exposure to another, it would find itself on the hook for the excess. If such rules were understood by all participants, then no single failure could be a serious threat for the system at large. On the other hand, all those who had behaved "well" (by the Bank of England's standards, which meant – among other things – being properly diversified) were eligible for assistance – assistance of the "ordinary" variety, through the discount window[11]. Under the new "regime" that was definitively established with the Crisis of 1866, the Bank was happy to

[10] While in October 1889 the Bank had had in its portfolio no more than £80,000 in bills accepted by Baring Bros, in early October 1890 its exposure had climbed to £500,000. At this date, George J. Goschen, then Chancellor of the Exchequer, noted down in his diary: "Went to the Bank, things queer! Some of the first houses talked about" (Clapham 1944, pp. 327-8). At the peak of the crisis (18th November 1890), the Bank's exposure to Barings would reach £715,000 (Bank of England Archive, C22/43). The "anomalous" supply of acceptances by Barings is also manifest from the figures reported in Chapman (1984, p. 121).

[11] It is crucial to note that the Bank never refused "ordinary" assistance to Overend, Gurney & Co.: because they were probably short of eligible securities, Overends never showed up at the discount window in the period preceding the crash, and only went to Threadneedle Street – when things were already beyond repair – to ask for "extraordinary" assistance (Bank of England Archive, C24/1).

discount proportionate amounts of bills guaranteed by all those signatures which were considered eligible in ordinary times (including those whose solvability was at risk of getting into trouble afterwards). Given the detailed knowledge that the Bank had of the money market and the redundant guarantees that it took from acceptors and discounters, given also the extreme division of risks in a system where the biggest exposure remained limited (as seen, the top acceptor was only 6% of the Bank's portfolio) the policy was a very narrowly calculated risk. And this does not even include the strong interest discounters had in doing whatever they could in order not to lose access to the discount window.

Thus, the sophisticate supervisory system put in place by the Bank of England around the mid-19th century allowed it to extend lending-of-last-resort operations without provoking an increase in moral hazard. As a matter of fact, throughout the 19th century the amounts-at-risk for the Bank experienced a secular decline, and by the late 1860s they had become basically negligible (Bignon, Flandreau, and Ugolini 2012). This, we argue, was Britain's 19th-century recipe for financial stability. It consisted neither in reliance on abstract market discipline, nor on automatic and anonymous lending of last resort. It had little to do with the Gold Standard, and nothing at all with rescue operations. Rather, it rested on a strict monitoring system or, if one prefers, on a *de facto* central bank regulation. To this *de facto* regulation banks and money market participants had to submit, if they wanted to be in good terms with the central bank. Such good terms were valuable when crisis hit and the Bank was the last lender around – literally, the lender of last resort.

This qualifies the oral tradition that in the late 19th century, supervision was minimal and dealt with the "Bank of England Governor's eyebrow".[12] According to this view, it was enough for the Governor of the Bank to raise an eyebrow for bankers to put their house in order. There was, of course, much more to the raised eyebrow than the inconvenience of a stern look. There was detailed information by the Bank, and there was the Bank's power to act by denying discounting facilities. For those needing a reminder, the corpse of Overends could be shown.[13]

[12] For a printed variant, Withers (1910, p. 56) has an intriguing digression on the Bank of England being the "final arbiter" when the credit of a house came under suspicion.

[13] Another interesting case discussed in Flandreau and Ugolini (2013) is that of the House of Vagliano, who after a dispute with the Bank of England was excluded from the discount window and had to leave banking (Chatziioannou and Harlaftis 2007, pp. 38-9)

4. **Twin Success: International Aspects of the Crisis of 1866**

But the panic of 1866 did not have solely domestic significance. As already indicated, the London market was relied upon by non-residents. London was a place where international supply and demand for short-term credit were cleared[14]. Foreign balances were held and funding was sought, notably – as indicated – trade finance. Figure 5 illustrates this, showing the breakdown of the Bank of England's portfolio of bills according to the geography of drawers: It shows totals drawn by domestic ("inland") vs. foreign drawers (i.e. foreign and colonial). We see the predominance of foreign originations. In May 1866, 65% of the bills discounted by the Bank in May had been drawn by agents residing outside the country. As a result, both the crisis and the Bank of England's actions to handle it were bound to have a significant impact on sterling as an international currency.

The crisis translated into increased risk aversion on behalf of international investors, and contemporaries pointed to what is today known as a "sudden stop" (Calvo 1998). The mechanism they had in mind is today known as that of twin crises: In the instance, a credit crisis that was becoming a currency crisis. The sterling confidence crisis that developed was triggered by the surge in credit risk associated with the failure of Overends (Patterson 1870, pp. 227-8 is perhaps the most articulate illustration).[15] Unsure about the prospects of the London market, foreign investors liquidated positions and repatriated balances. The consequence was, in the immediate aftermath of the crisis, a weakening of sterling in spite of the exceptionally high interest rates the Bank maintained. In fact, if we use market rate differentials to compute the "forward" sterling-franc exchange rate and compare it to the gold points (Figure 6), we see that the credibility of sterling which was already under (mild) suspicion before the crisis came under serious doubt during the panic (a "forward" rate below the gold export point suggests that sterling suffered a credibility crisis and indeed, in April, the forward exchange rate raced away from the gold points). As for the spot rate it stayed discouragingly close to the gold export point following the Overend collapse, despite a baffling 6% interest rate differential between London and Paris.[16]

Thus the 1866 crisis was also a currency crisis. It was arguably the worst experienced by sterling during the whole "classical" gold standard period (1821-1913), at least if we are to

[14] For an account of the international foreign exchange market in the mid-19th century, see Ugolini (2012).
[15] See also Juglar (1889, p. 368); Wirth (1890, pp. 434-5); Macleod (1891, pp. 833-4).
[16] Hawtrey (1919, pp. 149-50) argues that foreign investors were questioning the viability of the gold standard. This may be exaggerated: After losing £1.3m in the first two weeks after 11th May, the gold reserve surpassed its pre-crisis level in June, and never sank below it in spite of the fact that an additional drain took place in July (figure 6). Thus, the case for a confidence crisis is strong (Ugolini 2010).

evaluate this from the length and extent of the "high rates" period: Faced with reserve losses, the Bank of England had to keep the interest rate at a record level (10%) for more than three months, the longest period ever (Clapham 1944, pp. 429-32). Many observers saw the crisis as a blow to the reputation of London as an international money market. The shock was deterring foreign creditors from investing in English money market instruments despite the high rates. This opinion was taken seriously by the British Foreign Office, which felt it was necessary to send a circular to all diplomatic representations reassuring foreigners about the solidity of the English financial system[17]. Indeed, the policy followed by the Bank of England resulted from the same reading of the crisis – i.e., that the currency crisis would be resolved if the credit crisis was resolved. Such was also the logic of Bagehot's exhortations for generous lending against good collateral, while the "high rates" he also advised would take care of the currency crisis.

The consequences of this policy were equally important. At the end of the day, those investors who had not panicked and kept their money in London fared very well compared, say, to a counterfactual investment in Paris. Consider for instance an investor who would have converted his sterling into French francs bills with short maturities one month before the crisis (mid-March 1866) and then reinvested the bills as they matured, say week after week, during 6 months (until mid-September 1866) and then converted the proceeds in sterling again, and compare this investment with a similar one this time in sterling all the way through. At the end of the period the difference in yield between franc and sterling was 2.14% in favour of sterling, or an annualized differential of 4.28%.[18] This is one measure of the extent to which the more versatile – those who had fled to seek safety abroad -- were encouraged to be faithful in the future. We conclude that the Bank of England's adoption of lending-of-last-resort policies in 1866 was one aspect of the process through which the role of sterling as a key reserve asset was established.[19] In successfully dealing with the financial shock, the Bank of England acquired enormous financial clout, and this cannot have been an irrelevant aspect of its subsequent triumphs.

Figure 5 about here

[17] The text of the circular is found in Patterson (1870, pp. 234-5).
[18] Authors computations from data in Ugolini (2010). Details available from authors.
[19] The fact that a central bank should be expected to behave in such a way could not have been taken for granted at the time: for instance, the Bank of France's inability to do so after the events of 1870 seriously compromised the fate of the franc as an international currency. Bagehot himself noted this with satisfaction, but not without preoccupation: High-minded concern about the increased responsibility falling upon the Bank of England after the French debacle may have been a key motivation for *Lombard Street* (Bagehot 1873, pp. 31-2).

Figure 6 about here

5. Conclusion

Relying on new statistical evidence (Flandreau and Ugolini 2013) this chapter has surveyed crucial elements of the management of the crisis of 1866. First, our assessment sheds new light on how Britain found her path towards financial stability in the second half of the 19th century. By investigating the structure of the money market and the central bank's actions during the crisis, we have shown that Britain's recipe for financial stability consisted of a combination of generous liquidity provision and strict monitoring, made possible by the credible threat of exclusion from the central bank's standing facilities. The Bank's decisive adoption of this approach in 1866 reflected the end of credit rationing that had characterized crisis management until in 1857 (Bignon, Flandreau, and Ugolini 2012) and paved the way for the establishment of a more resilient financial system in the following decades.

Second, we have emphasized the significance of the new policy beyond Britain and the British financial system. The successful handling of the situation by the Bank of England, we argued, had implications at the international level. The Bank had dealt with a twin crisis: The seizure experienced by the London money market in the few hours that followed the collapse of Overend, Gurney & Co. tested the resilience of British trade credit institutions and the stability of sterling. Therefore, the Bank's eventual success contributed to establishing the role of sterling as an international currency.

Last, in a volume devoted to British financial crises, it seems natural to end this chapter on the crisis of 1866 with a comparison. We suggest one with the Baring crisis of 1890. One major difference between the two crises is that, while the Bank let Overends fail, it did organize a rescue of Barings – although it made sure that the bankers paid dearly for it, so that the frequently used wording "bail out" is inappropriate. We can think of one main difference between the two crises that may account for the contrasted behaviour. The fall of a bill broker was bound to inflict losses to commercial banks but, since bill brokers did not play a first-stage role in the origination of money market instruments (see figure 1), there was nothing in Overends' fall that would impair the operation of the money market: If cash was needed, the Bank could always provide it, and no large amount of information would be destroyed. By contrast, the fall of a first-order merchant bank such as Barings shattered the foundations of the London money market. Barings, unlike Overends, were large acceptors whose paper was

"normally" received by the Bank of England: Refusing Barings' paper would undermine the London money market and send shockwaves throughout the system.[20] There was this, and there was also the large exposure that the Bank of England had to Barings – in contrast with the lack of exposure it had to Overends.

[20] The systemic importance of merchant banks will again be proved by another crucial event in British financial history – i.e., the crisis of 1931 (Accominotti 2012).

References

- Accominotti, Olivier (2012), "London Merchant Banks, the Central European Panic, and the Sterling Crisis of 1931", Journal of Economic History, 72:1, pp. 1-43.
- Bagehot, Walter (1873), *Lombard Street: A Description of the Money Market*, London: King.
- Batchelor, Roy A. (1986), "The Avoidance of Catastrophe: Two Nineteenth-Century Banking Crises", in Forrest Capie (ed.), *Financial Crisis and the World Banking System*, London: Macmillan, pp. 41-76.
- Bignon, Vincent, Marc Flandreau, and Stefano Ugolini (2012), "Bagehot for Beginners: The Making of Lender-of-Last-Resort Operations in the Mid-Nineteenth Century", Economic History Review, 65:2, pp. 580-608.
- Calomiris, Charles W. (2011), "Banking Crises and the Rules of the Game", in Geoffrey Wood, Terence C. Mills, and Nicholas Crafts (eds.), *Monetary and Banking History: Essays in Honour of Forrest Capie*, London: Routledge, pp. 88-132.
- Calvo, Guillermo A. (1998). "Capital Flows and Capital-Market Crises: The Simple Economics of Sudden Stops". Journal of Applied Economics 1 (1): 35–54.
- Capie, Forrest (2002), "The Emergence of the Bank of England as a Mature Central Bank", in Donald Winch and Patrick K. O'Brien (eds.), *The Political Economy of British Historical Experience 1688-1914*, Oxford: Oxford University Press, pp. 295-315.
- Chapman, Stanley (1984), *The Rise of Merchant Banking*, London: Allen & Unwin.
- Chatziioannou, Maria-Christina, and Gelina Harlaftis (2007), "From the Levant to the City of London: Mercantile Credit in the Greek International Commercial Networks of the 18th and 19th Centuries", in Philip L. Cottrell, Even Lange and Ulf Olsson (eds.), *Centres and Peripheries in Banking: The Historical Development of Financial Markets*, Aldershot: Ashgate, pp. 13-40.
- Clapham, John (1944), *The Bank of England: A History*, II, Cambridge: Cambridge University Press.
- Fetter, Frank W. (1965), *Development of British Monetary Orthodoxy 1797-1875*, Cambridge (Mass.): Harvard University Press.

- Flandreau, Marc, and Stefano Ugolini (2013), "Where It All Began: Lending of Last Resort and Bank of England Monitoring during the Overend-Gurney Panic of 1866", in Michael D. Bordo and William Roberds (eds.), *The Origins, History, and Future of the Federal Reserve: A Return to Jekyll Island*, Cambridge: Cambridge University Press, pp. 113-61.
- Giannini, Curzio (1999), *"Enemy of None but a Common Friend of All"? An International Perspective on the Lender-of-Last-Resort Function*, Princeton: Princeton University.
- Hawtrey, Ralph G. (1919), *Currency and Credit*, London: Longmans.
- Juglar, Clément (1889), *Des crises commerciales et de leur retour périodique en France, en Angleterre et aux États-Unis*, 2nd ed., Paris: Guillaumin.
- King, Wilfred, T.C., (1935), "The Extent of the London Discount Market in the Middle of the Nineteenth Century", Economica (New Series), 2:7, pp. 321-6.
- King, Wilfred T.C. (1936), *History of the London Discount Market*, London: Routledge.
- Macleod, Henry D. (1891), *The Theory of Credit*, II.2, London: Longmans.
- Mahate, Ashraf A. (1994), "Contagion Effects of Three Late Nineteenth Century British Bank Failures", Business and Economic History, 23:1, pp. 102-15.
- Patterson, Robert H. (1870), "On Our Home Monetary Drains, and the Crisis of 1866", Journal of the Statistical Society of London, 33:2, pp. 216-42.
- Roberts, Richard (1992), *Schroders: Merchants and Bankers*, Basingstoke: Macmillan.
- Schwartz, Anna J. (1987), "Real and Pseudo-Financial Crises", in ead. (ed.), *Money in Historical Perspective*, Chicago: University of Chicago Press, pp. 271-88.
- Schwartz, Anna J. (1995), "Why Financial Stability Depends on Price Stability," Economic Affairs, 15:4, pp. 21-5.
- Seyd, Ernest (1868), *Bullion and Foreign Exchanges, Theoretically and Practically Considered*, London: Effingham Wilson.
- *The Economist*, 1857, 1865-6.
- Ugolini, Stefano (2010), "The International Monetary System 1844-1870: Arbitrage, Efficiency, Liquidity", Norges Bank Working Paper 2010/23.
- Ugolini, Stefano (2012), "Foreign Exchange Reserve Management in the Nineteenth Century: The National Bank of Belgium in the 1850s", in Anders Ögren and Lars F.

Øksendal (eds.), *The Gold Standard Peripheries: Monetary Policy, Adjustment and Flexibility in a Global Setting*, Basingstoke: Palgrave Macmillan, pp. 107-29.

- Withers, H. (1910), "The English banking system" In R. H. I. Palgrave, E. Sykes, and R. M. Holland, *The English banking system* (Sixty-First Congress, Second Session, Senate Document No. 492, pp. 3–148). Washington, DC: U.S. Government Printing Office.
- Wirth, Max (1890), *Geschichte der Handelskrisen*, 4th ed., Frankfurt am Main: Sauerländer.
- Wood, Elmer (1939), *English Theories of Central Banking Control 1819-1858*, Cambridge (Mass.): Harvard University Press.
- Xenos, Stephanos T. (1869), *Depredations: or, Overend, Gurney & Co., and the Greek and Oriental Steam Navigation Company*, London: Author.

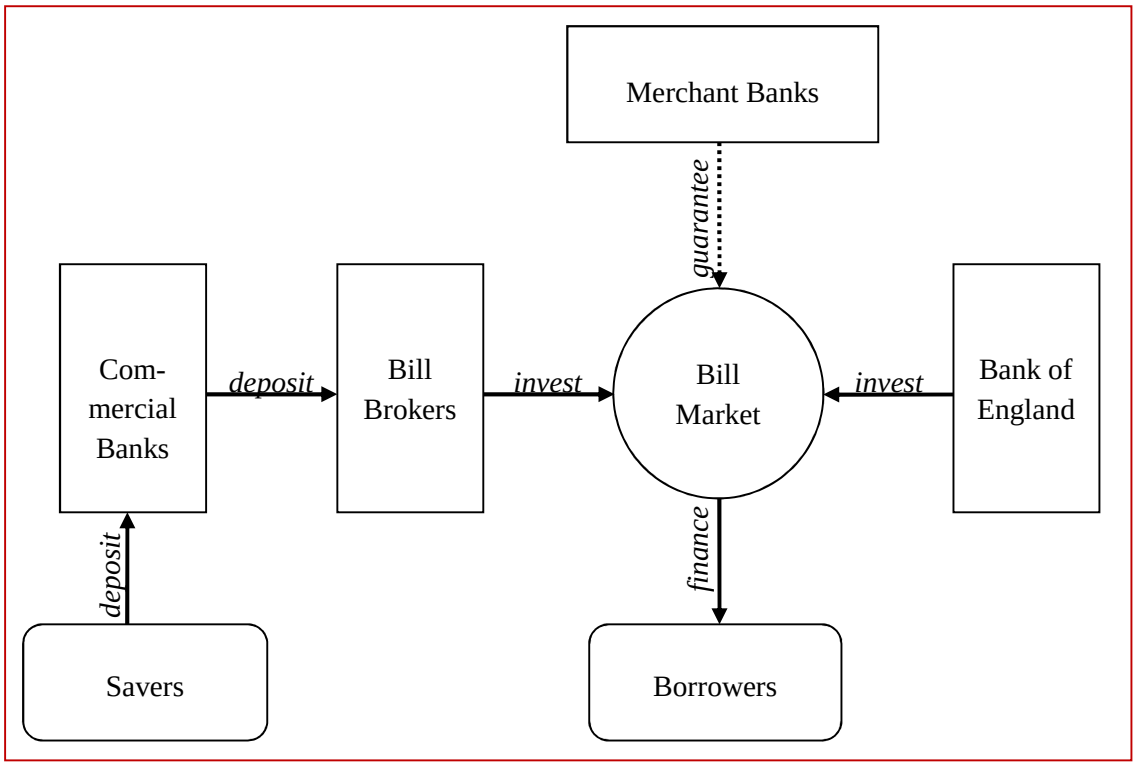

Figure 1: Stylized structure of the English financial system in the 19th century.

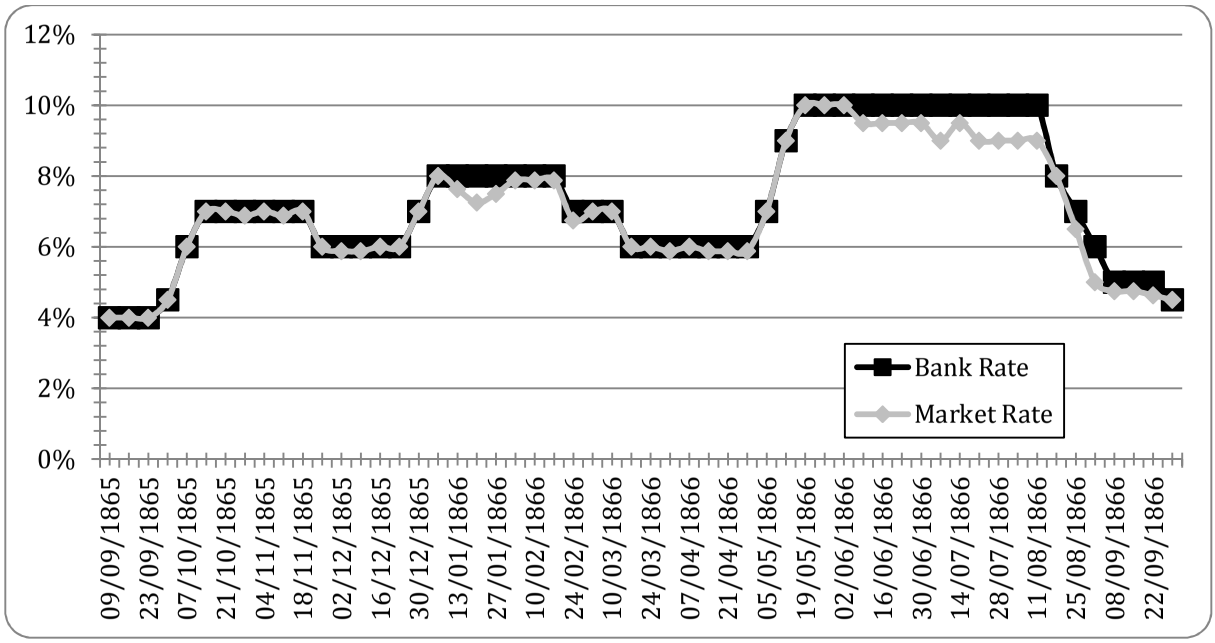

Figure 2: Bank and market interest rate in London. Source: *The Economist* (1865-6)

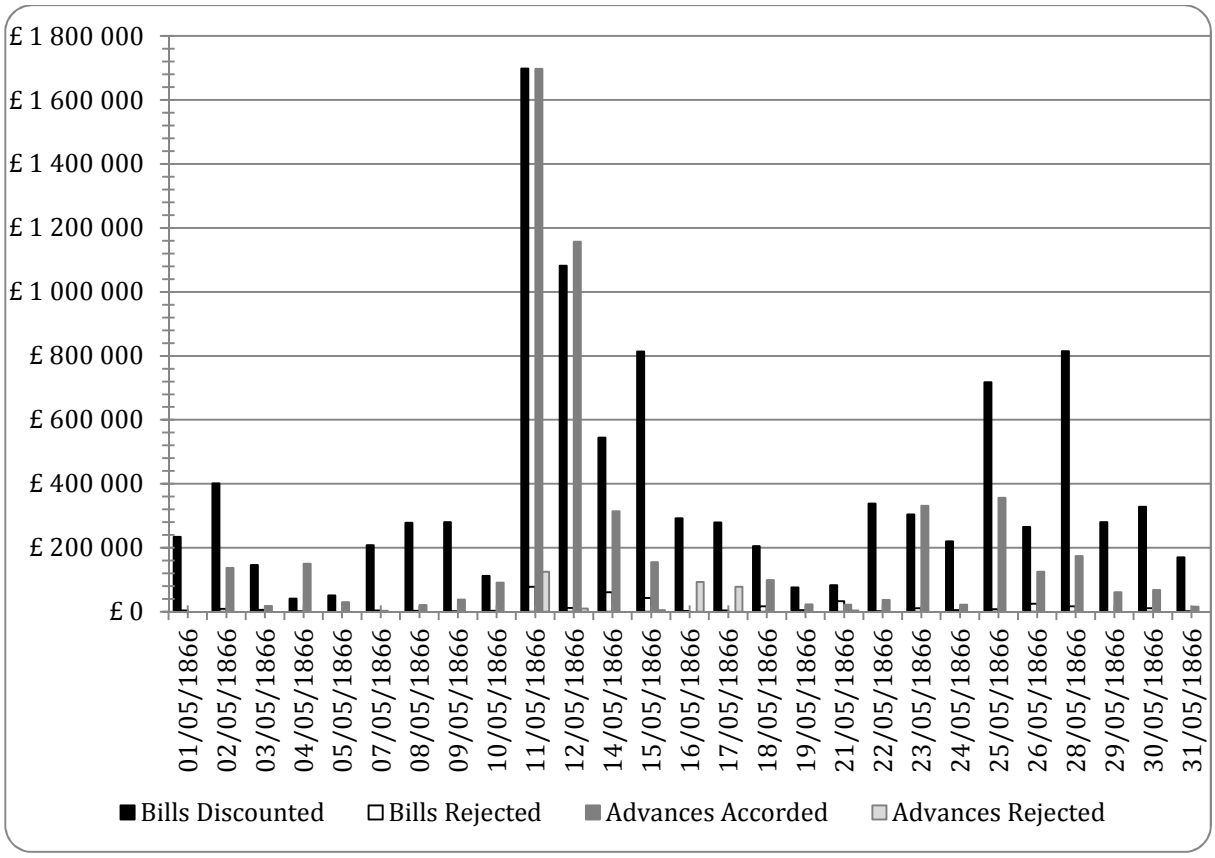

Figure 3: Daily discounts and advances by the Bank of England in May 1866. Source: Flandreau and Ugolini (2013).

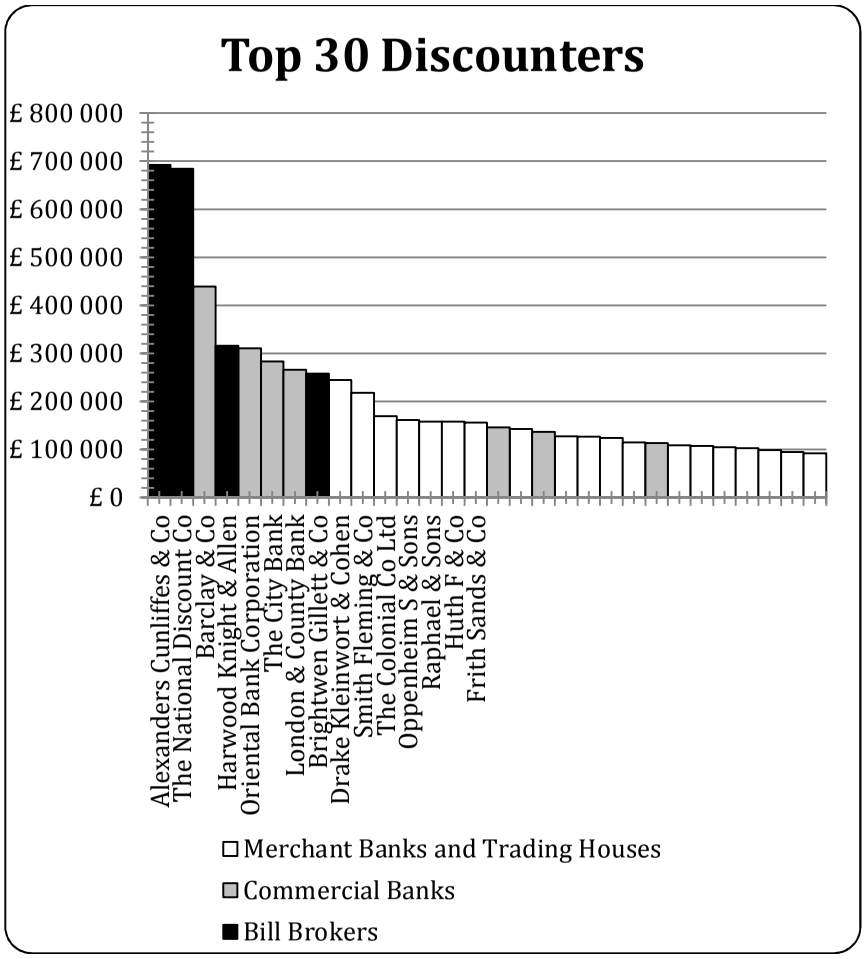

Figure 4a: Top 30 discounters from the Bank in May 1866. Source: Flandreau and Ugolini (2013).

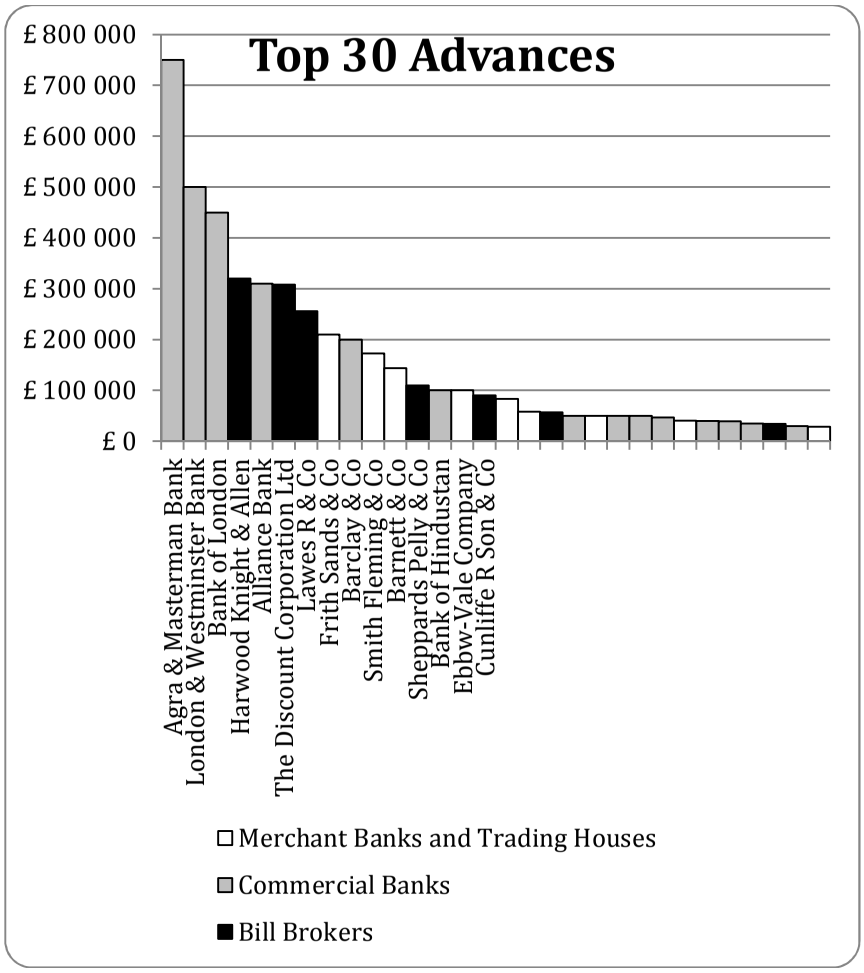

Figure 4b: Top 30 advances from the Bank in May 1866. Source: Flandreau and Ugolini (2013).

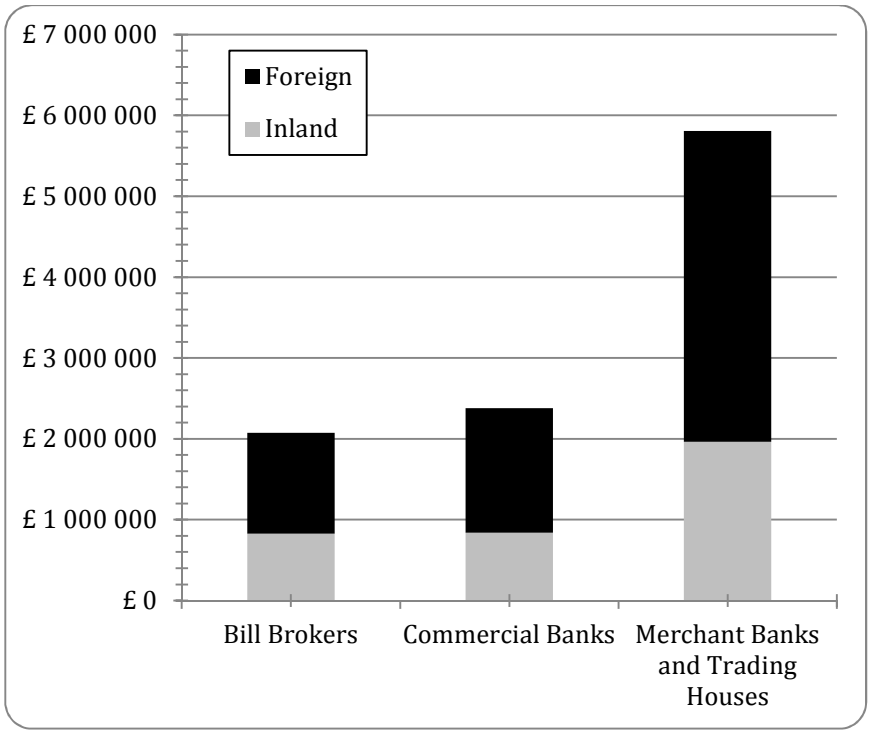

Figure 5: Geographical origin of the bills discounted by the Bank in May 1866 (per kind of discounter). Source: Flandreau and Ugolini (2013).

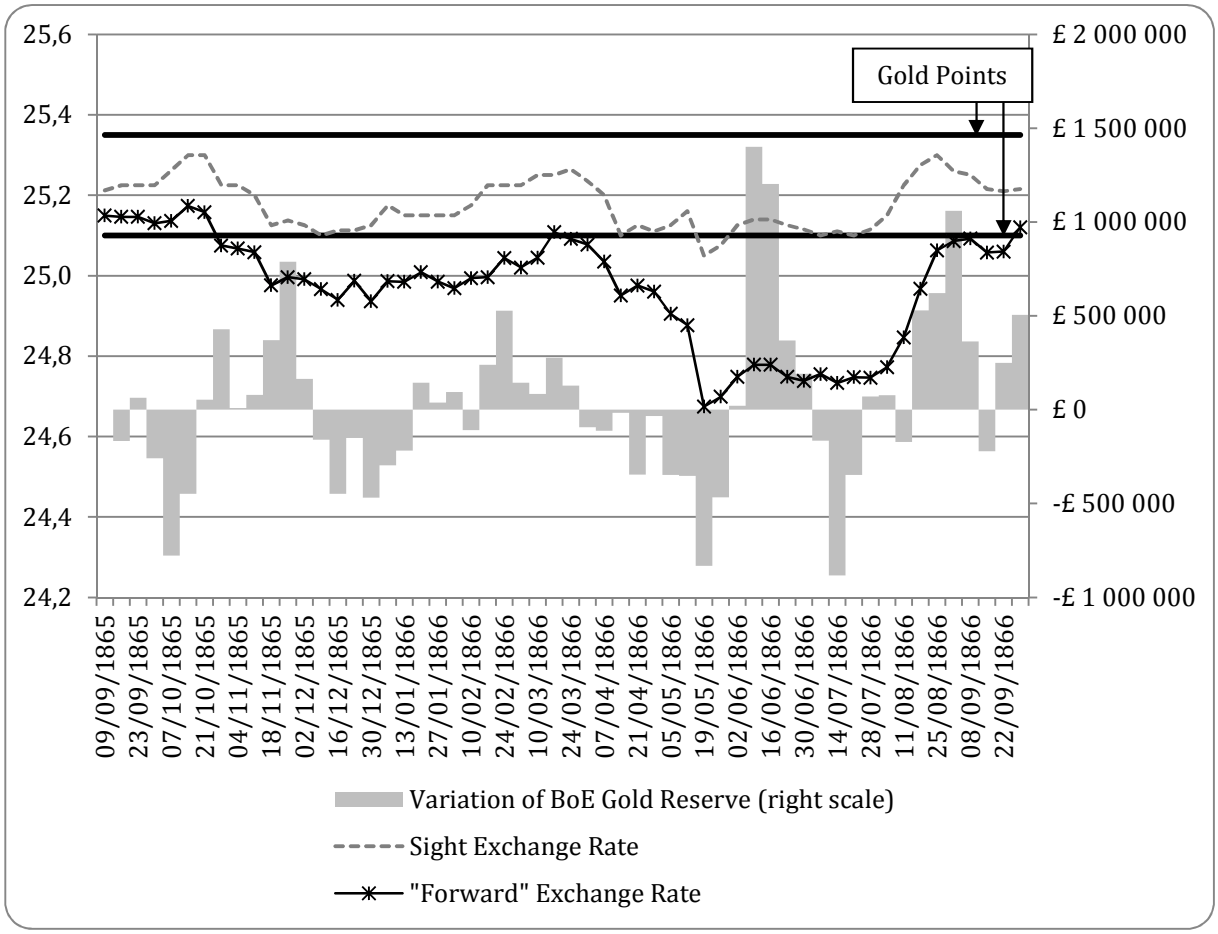

Figure 6: International aspects of the 1866 crisis: variation of the Bank of England's gold reserve, and spot and "forward" franc-pound exchange rates. Sources: Ugolini (2010); *The Economist* (1865-6); Seyd (1868).

May 1865			
1	**London Joint Stock Bank**	166'862.66	7.75%
2	**Union Bank of London**	84'419.34	3.92%
3	**London & County Bank**	69'317.37	3.22%
4	**City of Glasgow Bank**	52'555.49	2.44%
5	Imperial Ottoman Bank	42'580.81	1.98%
6	**Frühling & Goschen**	42'560.03	1.98%
7	**The City Bank**	39'170.67	1.82%
8	**Drake Kleinwort & Cohen**	29'261.21	1.36%
9	Bank of London	26'359.61	1.23%
10	**Agra & Masterman's Bank**	24'504.00	1.14%
11	**Baring Brothers & Co**	21'635.55	1.01%
12	**Finlay Campbell & Co**	19'216.32	0.89%
13	**F Huth & Co**	19'029.89	0.88%
14	**The National Bank**	15'793.46	0.73%
15	**Finlay Hodgson & Co**	14'456.01	0.67%
16	NM Rothschild & Sons	12'853.00	0.60%
17	Union Bank of Australia	12'498.68	0.58%
18	Dadalhai Naoroji & Co	12'000.00	0.56%
19	**Glyn Mills Currie & Co**	11'956.26	0.56%
20	**Mercht Bkg Co of London**	11'264.87	0.52%
21	**Oriental Bank Corporation**	11'139.60	0.52%
22	Moses Brothers	10'200.00	0.47%
23	Colonial Bank	10'179.34	0.47%
24	Alliance Bank	9'101.34	0.42%
25	JH Schroder & Co	8'421.57	0.39%
	TOTAL	*777'337.08*	*36.13%*

May 1866			
1	**London Joint Stock Bank**	637'028.01	6.21%
2	**Union Bank of London**	474'520.92	4.62%
3	**The National Bank**	321'824.83	3.14%
4	**Frühling & Goschen**	279'321.03	2.72%
5	**Agra & Masterman's Bank**	191'511.83	1.87%
6	**The City Bank**	188'088.95	1.83%
7	North Western Bank	175'129.64	1.71%
8	**London & County Bank**	150'793.66	1.47%
9	**Baring Brothers & Co**	147'425.16	1.44%
10	Royal Bank of Liverpool	146'905.89	1.43%
11	**Drake Kleinwort & Cohen**	144'033.20	1.40%
12	**F Huth & Co**	125'467.88	1.22%
13	**Finlay Hodgson & Co**	123'896.58	1.21%
14	**City of Glasgow Bank**	96'051.60	0.94%
15	JS Morgan & Co	95'764.03	0.93%
16	Bank of Liverpool	85'577.62	0.83%
17	Ebbw-Vale Company Limited	80'771.80	0.79%
18	Smith Fleming & Co	80'741.91	0.79%
19	Consolidated Bank	80'253.50	0.78%
20	R & J Henderson	77'485.63	0.76%
21	**Oriental Bank Corporation**	77'025.64	0.75%
22	**Finlay Campbell & Co**	75'030.05	0.73%
23	**Mercht Bkg Co of London**	72'484.53	0.71%
24	Dickinson W & Co	62'141.31	0.61%
25	**Glyn Mills Currie & Co**	61'882.74	0.60%
	TOTAL	*4'051'157.91*	*39.5%*

Table 1a-b: Top 25 acceptors of the bills discounted by the Bank in May 1865 and in May 1866. Source: Flandreau and Ugolini (2013). Note: Institutions in the top 25 at both dates are shown in bold characters. That makes 16 out of 25.