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The Bank of England, 1694-2017

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1. Introduction

There have been four, officially commissioned, histories of the Bank of England, covering different, but overlapping, historical periods, by Sir John Clapham, 1694-1914, (2 Volumes), Prof. Richard Sayers, 1891-1944, (3 Volumes), John Fforde, 1941-1958, and, most recently, Forrest Capie, 1950s to 1979. For a review of the latter and a brief comparison with the earlier three histories, see Goodhart (2011). A further official history, covering the period from the 1970s to 1998 has now been commissioned; Harold James will be its author. Moreover, there are 20, or so, books, besides these official histories, with Bank of England in their title available on Amazon. So there is no lack of historical coverage.

So what can additionally be done now both briefly and of some potential interest, one might hope, to both reader and author? The twist adopted here is not to take the story of the Bank chronologically, but to take each of the functional relationships and activities of the Bank separately and to explore how each of these relationships has developed over time, though giving most attention to their evolution since 1945, a 70 year period during much of which (1968-2000) I was myself directly involved with the Bank.

¹ The author would like to thank the following for their constructive comments: Susan Howson, Mervyn King, David Learmonth, Ben Norman, Brian Quinn, Paul Tempest, Ryland Thomas, Marilynne Tolle, and Geoffrey Wood, and a special mention for Forrest Capie, my discussant at the earlier Stockholm Conference, who saved me from numerous errors.

We start with the crucial relationship between the Bank of England and the Government. Like most other Central Banks, the Bank of England was, and has remained, a creation of Government. It was founded in 1694 on the basis of a *quid pro quo*; in exchange for providing finance, in the shape of bond purchases, to conduct war with France, the Bank of England was given certain special advantages; it was the only joint stock bank then allowed in England (unlike Scotland), and it was, very clearly, the Government's preferred bank. As Capie and Wood note (2015), "When the Bank of England was founded in 1694 it was not founded as a central bank. The concept of a central bank did not exist in the seventeenth century". It was established by a Parliamentary Charter, which had to be reconsidered and renewed at discrete intervals, e.g. 21 years in the 1742 Act, (Clapham, pp 95/96); such occasions of renegotiation of the Bank's privileges naturally led the Bank to focus on its continuing relationship with the Government.

We shall divide up analysis and discussion of the Bank's on-going relationship with Government (Section 2) into three main parts, these are:-

- (i) Governance;
- (ii) Debt and cash flow management;
- (iii) Macro-monetary policy.

Then we shall turn to the Bank's relationship with people (Section 3), under four headings:-

- (i) The public as clients of the Bank as a commercial bank;
- (ii) The public as users of Bank of England note issue;
- (iii) The Bank's Proprietors, shareholders;
- (iv) The Bank's Directors, Governors, Court and Staff.

Finally, we review the Bank's relationship with the other commercial banks, under the headings:-

- (i) Managing the Payment System;
- (ii) Lender of Last Resort;
- (iii) Supervising the Banks;
- (iv) Bank Resolution.

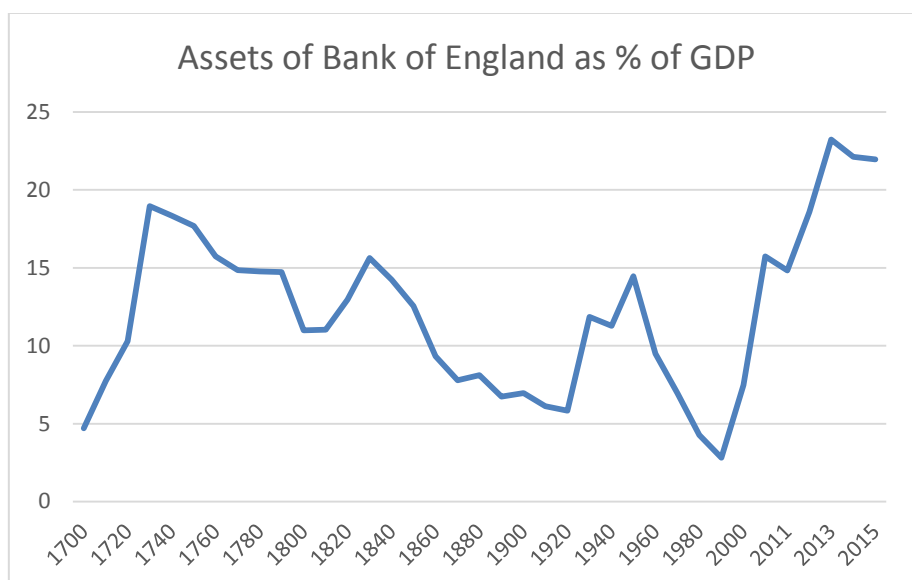
Since there are no less than 11 functional sub-headings to review, over a period in each case of some 322 years, the attention and detail given to each is, perforce, quite limited.

2. Relationships with Government

2(i) Governance

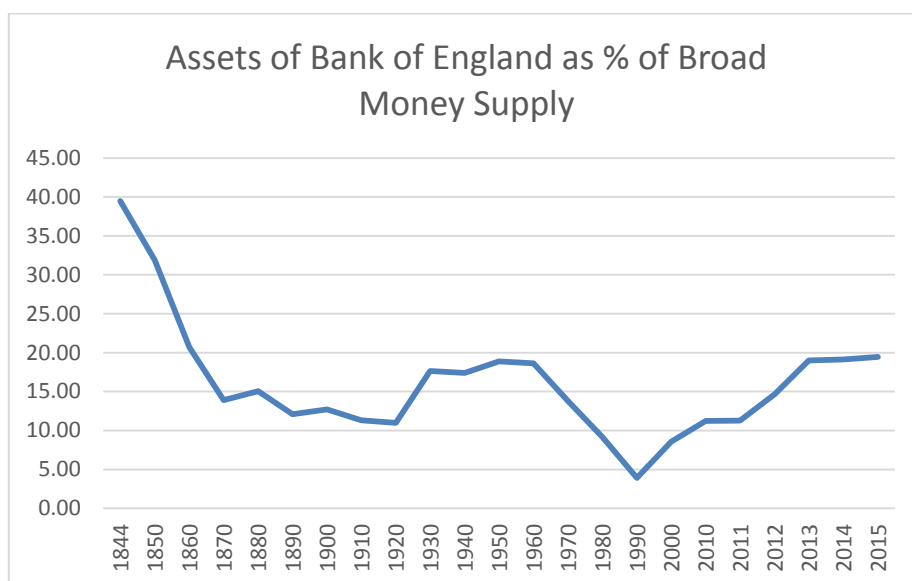
The Bank of England was established in 1694, by Act of Parliament, as a private joint stock, limited liability, company, with a Charter subject to periodic renewal and renegotiation. Each such occasion provided an opportunity for the Government of the day to try to extort further favourable financing. On the other hand the Bank's privileges and its role as the Government's preferred bank gave it a pre-eminent position amongst all other commercial banks in England and Wales, and its note circulation and deposits soon became large, prior to the second half of the 19th Century, both as a proportion of GDP and in relation to the broad money stock, see Figures 1 and 2 below:-

Figure 1



Source: <http://www.bankofengland.co.uk/research/Pages/onebank/threecenturies.aspx>

Figure 2



Source: <http://www.bankofengland.co.uk/research/Pages/onebank/threecenturies.aspx>

It was the large profits that the Bank made on the seignorage from its note issue that raised the ire of David Ricardo in his long pamphlet on 'Proposals for an Economical and Secure Currency' (1816), see later Section 3(i). Ricardo believed that the provision of the bank note circulation and the seignorage profits thereby arising should be a public, not a private, function. Although his analysis of the cause and extent of the depreciation of the pound from gold during the suspension of gold specie payments from 1797 to 1821 (during the Napoleonic Wars) differed from that of the Banking School, see Fetter (1978), Chapter 1, Ricardo thought that the Bank had *not* taken undue advantage of the Suspension to expand its balance sheet unduly.

But there was always a danger that a privately run Bank might do so. Ricardo then expanded his previously extremely brief comments on the appropriate institutional arrangements for note issue, into a later pamphlet, his 'Plan for the Establishment of a National Bank' (1824), published posthumously. In this he argued for a separate public sector Currency Board to control the note issue, expanding in line with the availability of gold-backing at a fixed conversion price. Since most commentators then would have defined 'money' as synonymous with notes and coin, and since Ricardo's currency board would have had a monopoly of note issue, this was akin to proposing that

transactions balances, i.e. notes, should be issued by a 'narrow bank', while other bank assets, e.g. loans and securities, should be backed by non-strictly-monetary bank liabilities.

After Ricardo's death (1823), proposals to concentrate note issue in England were continued by his supporters, e.g. Colonel Torrens and his brother, Samson Ricardo, amongst what became known as the Currency School. Following on some macro-economic disturbances in the 1830s, and dissatisfaction with the Bank of England's policies at the time, (plus agreement that seignorage should accrue to the taxpayer, not to bankers), it did seem then possible that Ricardo's idea for an independent Currency Board might get adopted, (see Fetter, Chapter VI, 1978).

Fetter attributes the fact that this did not happen almost entirely to one man, Sir Robert Peel, the Prime Minister at the time. Peel wrote a paper to his Cabinet colleagues offering three alternatives:-

- a) Leave everything as it was.
- b) A Ricardian independent Currency Board.
- c) Divide the Bank of England into two parts, with the Issue Department being, in effect, a Currency Board, and a separate Banking Department on top of that.

Not surprisingly his Cabinet colleagues voted, virtually unanimously, for the compromise option (c). It had the virtue of avoiding unsettling institutional disruption, and of being more acceptable to the Bank.² It also seemed to go sufficiently far to meet the demands of the Currency School.

What is much less clear is whether Peel, or anybody else at the time, realised the crucial difference between having an independent Currency Board and imbedding the Issue Department within the Bank. This was that the cash reserves of the whole British banking system would continue to be centralised in the Bank of England under the Bank Charter Act of 1844, whereas they would have been (much more likely) dissipated more widely amongst the individual banks, including the Bank of England, under an independent Currency Board.

² According to Fetter, Peel had had prior talks with Cotton and Heath, the Governor and Deputy Governor of the Bank of England, (op cit, page 183), "Out of their discussions came a memorandum from Cotton and Heath that was in effect an outline of the act that finally emerged, plus a provision not in the final act that would have permitted the fiduciary issue to be exceeded on the authorization of three Ministers of the Crown."

The key was that the unissued notes held in the Banking Department provided the margin of flexibility which allowed the Bank, under normal circumstances, both to maintain the Gold Standard and to manage the regular workings of the financial system, see Sayers, op cit. In practice the Bank had a reaction function, much the same as the Taylor reaction function under an inflation target. Thus if the 'Proportion', (of unused bank notes to liabilities), fell, it would start being restrictive and seek to raise Bank rate, and vice versa, see the papers by Dutton (1984) and Pippenger (1984), and the comment by Goodhart, in 'A Retrospective of the Classical Gold Standard, 1821-1931', eds. Bordo and Schwartz (1984).

Thus, just as the Inflation Target has been applied flexibly, so was the Gold Standard in the UK. But despite such flexibility, there were, and remain, abnormal occasions when a panic ensued, and there is a rush for cash. After 1844 this led to the need to suspend the Bank Act; in the context of an Inflation Target, it led to unconventional monetary policy; again rather similar.

So, under normal circumstances the conduct of monetary policy could be delegated to the Bank, but in a crisis, e.g. when the available cash reserves at the Bank were near exhaustion, the Bank had to seek support from the Government, and both Bank and Government had to work closely together, with the Government taking the lead. The biggest crisis, by far, was the outbreak of war in 1914, in some large part because it was unexpected, right up to the last week, or so, and thus the financial system was caught unprepared. This has now been well documented by Roberts (2013). The ramifications of this crisis were so extensive and threatening that the Government had largely to take over the conduct of the monetary response, even going so far as to print and issue its own note liabilities,³ (known as a Bradbury, who was the Permanent Secretary of the Treasury), partly because the lowest denomination Bank note was £5, and, to conserve gold, the public needed lower denomination notes).

During the war, 1914-18, the conduct of monetary policy, e.g. interest rates, exchange rates, borrowing both abroad (i.e. in the USA) and at home, became matters of Government policy, with the Bank acting as agent and adviser. A problem then arose that the then Governor, Walter Cunliffe

³ The Bank could have done this itself, but the Treasury insisted that it took the lead.

(described by Sayers (1976) as autocratic (p. 67, Vol. 1), and a bully, (p. 101), refused to accept that he would have to act under the direction of the Treasury, and in 1917 tried to countermand some Treasury orders about the use of gold reserves held in Canada. That led Lloyd George, then Prime Minister to threaten to 'take over the Bank' and to present a statement for Cunliffe to sign,⁴ Sayers (ibid, pp 101-109),

"10 July 1917

That during the War the Bank must in all things act on the directions of the Chancellor of the Exchequer whenever in the opinion of the Chancellor National interests are concerned and must not take any action likely to affect credit without previous consultation with the Chancellor."

So, it had now become clear that in any crisis situation, and throughout any major war, the Bank was strictly subservient to the Government in general, and to the Chancellor and HM Treasury in particular. But quite what represented a crisis? In particular the 1931 foreign exchange crisis, and its aftermath of international disturbances and then rearmament, did. Increasingly through this inter-war period, pushed on by the collapse of the Gold Standard, the locus for decisions on all the major strategic issues of monetary policy shifted from the Bank to the Treasury; the Bank was becoming the agent and adviser to Government, rather than the decision maker on monetary policy, either domestically or externally. This process was, of course, greatly reinforced by the exigencies of WWII, so by the end of 1945 the Bank was agent and adviser on all policies such as exchange control, exchange rate management, interest rates, quantitative controls over banks, etc., but the strategic decisions were taken by the Chancellor. On the main issues of the day, the Bank had become, in effect, subservient to the Government, though on the tactical implementation of such strategic policies the Bank usually made most of the running.

When the Labour party took over the reins of Government in 1945, it then proceeded to nationalise the Bank in March 1946. In practice this was a purely symbolic gesture; this is exemplified by the fact that the Act said absolutely nothing about the purposes and objectives of the Bank; working relationships between Bank and the Chancellor/Treasury remained exactly as before, with the Bank acting as key agent and adviser, but subservient to the Chancellor/Government in respect of all key decisions.

⁴ Cunliffe refused to sign, but subsequently wrote a letter of apology in which he agreed that he 'must not attempt to impose my own views on you'.

That continued, largely unchanged, until 1997. The Bank occasionally chafed at such subservience, and its influence depended on its knowledge of the workings of financial markets, since the Chancellor was inevitably closer to the advice of HMT economists, than to Bank economists. In some large part, the working interactions depended on the personal relationships amongst those at the top in the Bank and in HMT, which were notably good between Governor Richardson and Chancellor Healey, and bad between Richardson and Thatcher and Lawson.

Macro-economic outcomes were bad in the 1970s, a decade of stagflation, as bad, or worse, than in the years after 2008/9, the Great Financial Crisis (GFC). The attempt to apply monetarist theory, in the guise of monetary targets, did largely succeed, during the 1980s, in reducing inflation, but the targetry itself appeared fallible, and was succeeded, (after a brief flirtation first with shadowing the Dm and then with joining the ERM, 1990-92), in the early 1990s by the adoption of (flexible) inflation targets.

In principle such inflation targets could be pursued by a Ministry of Finance, advised by a subservient Central Bank. But the general perception, transformed by academic economists into the technical language of 'time inconsistency', was that the political authorities would regularly be tempted to adopt excessively expansionary policies, most likely in advance of elections. Although the empirical evidence for this syndrome is, in the UK at least, weak, it panders to the public's general distrust of politicians. So, expectations of future inflation would, indeed, fall if governments, especially left-wing governments, gave operational independence to Central Banks, subject to an Inflation Target set by Government. And this is what happened in 1997 in the UK.

From 1997 until 2007 this new regime worked perfectly. The GFC (2008/9) then forced the Bank to take unconventional policy measures, as the official short term interest rate fell towards the zero lower bound (ZLB). Such measures, such as Quantitative Easing and various asset swaps with commercial banks, had implications for CB profitability, for debt management and for the workings of financial markets that seemed to lie on the boundary between monetary and fiscal policies. Consequently the prior clear separation of policy space between Bank and Treasury has become fuzzier.

Nevertheless, not only was disaster averted in 2008/9 by the strong actions of Central Banks, but also the Inflation Target objective has remained intact, (although inflation dipped below target, it was not by much, with no deflationary spiral occurring). But the experience of the GFC has led to a second objective, of achieving financial stability, coming back into prominence.

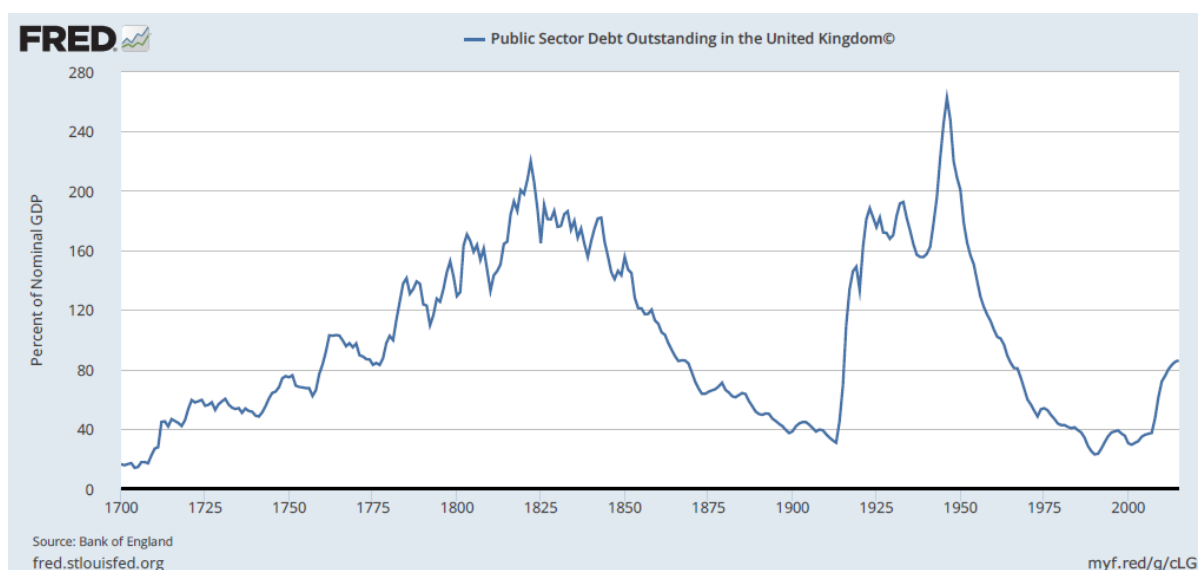
More generally, the more severe the crisis, and the less successful the Central Bank in defusing that, the more likely will it be that the Government will take back into its own hands the conduct of monetary policy. For the time being the Bank of England, like most other CBs, has done well enough to maintain operational independence. Whether that can continue is yet to be determined.

2(ii) Debt and Cash Flow Management

Since the Bank of England was the creature of the Government, the Government naturally used it as its usual bank, with the Bank doing for this client what it would do for other clients, that is to manage its cash flow, receipts and expenditures, in the most economical fashion, and to advise on financing, especially debt management. Although debt issuance was always the ultimate responsibility of the principal, the UK Government, nevertheless the Bank, with its market savvy and close connections to markets and market players, was from the outset the key agent and adviser to the Government on debt management.

Indeed, it was essential for the Bank's wider monetary management that it did have this central role in debt management. The Bank was created initially to finance war, and the series of subsequent wars dominated the time series of the ratio of debt to GDP, with peaks of around, or over, 200% after each of the major wars (Napoleonic 1797-1815, WWI 1914-18, WWII 1939-45), as shown in Figure 3 below:-

Figure 3



Source: <https://fred.stlouisfed.org/series/PSDOTUKA>

This massive (post-War) scale of debt had several direct monetary consequences. First, the occasions of debt issuance, debt redemptions and dividend (interest) payment became the main seasonal factors influencing cash injections, and, in the case of new issues, cash withdrawals from the market. The Bank had to develop mechanisms for smoothing such discrete, and relatively huge, (seasonal) cash flow factors in order to keep control of money market rates; Sayers (1936) is particularly good on this.

Second, the Bank was always acutely aware that an arising inability to roll-over the debt, even for relatively short periods, as it became due, could flood the system with money, and lead to a combined collapse of the Gold Standard (foreign exchange market) and domestic inflation. Preserving the health of the gilt-edged market was, hence, always a priority for the Bank, even if that could lead at times to temporary monetary control problems.

When debt ratios rise over 100% (or thereabouts; there are no key trigger points), debt and monetary management become absolutely inseparable and intertwined. There have been periods when the debt ratio fell sufficiently for this close link to be relaxed. Mid 19th century until 1914 was one such, with most of the debt held in undated Consols. The unexpected inflation of the 1970s

extinguished much of the debt burden of WWII, so the period 1980-2008/9 has been another. Nevertheless the removal of debt management from the Bank to a separate, Treasury controlled, Debt Management Office (DMO) in 1997 was a hostage to fortune. In thinking about the consequences of Quantitative Easing (QE), it proved problematic to have an independent DMO. The separation would seem to assume the continuance of a debt ratio that would remain low relative to the market's funding capacity. Should the debt ratio continue its current steady rise, previously unparalleled in peace-time, this institutional re-arrangement would need reconsideration.

Normally, in peace-time, the scale of the public sector borrowing requirement has, on average, been quite low, though the automatic stabilizers push it up during recessions. Thus concern about inflation has related more to the problems of rolling over the existing debt, (especially in the immediate aftermath of wars), and of lengthening the duration of that debt, than about avoiding any monetary finance of the current deficit. Indeed, the Bank has always been prepared to finance unexpected public sector shortages through Ways and Means Advances. But these have been meant to be temporary.

Over the centuries, the Bank has smoothed out medium term fluctuations in the Government's cash requirements, from the end of the 19th century onwards largely via variations in Treasury Bill issue, and it encouraged structural changes, such as its support for the London Discount Market, from the 1870s to the 1990s, to achieve that. Major movements in the ratio of TBs to the monetary base and to the broad money supply were, however, a signal and a warning that the underlying liquidity of the monetary system was changing. It was just this kind of analysis that led Sayers, in the later editions of *Modern Banking* (e.g. 1967), and in the Radcliffe Report, to put more weight on a fuzzier concept of liquidity than on a (or the) monetary aggregate.

Currently, with interest now being paid on commercial bank deposits at the BoE, the distinction between bank holdings of TBs and bank cash reserves has narrowed considerably, and the overall liquidity of the banking system, and of the wider economy, has rocketed upwards. The only comparable occasion was in the immediate aftermath of WWII. Now, as then, when the time comes to reverse engines, there may be a need to re-impose direct controls on banks, since sizeable increases in interest rates would be too disruptive (in present over-indebted conditions).

2(iii) Macro-Monetary Policy

For the greater part of the Bank's first 300 years, the macro-monetary policy objective of the Bank was to maintain an external standard. From 1694 until 1919, apart from the Suspension, 1797-1821, this was maintenance of the Gold Standard⁵; from WWI until 1925, it was to return to the GS, and then from 1925 to 1931 to maintain the GS; and from 1945 until 1971, it was to hold the exchange rate pegged against the dollar (and gold). The periods when the GS was in suspension, 1797-1821, 1919-1925, 1931-45, were treated as abnormal, due to exceptional war-time (or depression) pressures. Each of these periods led to intense soul-searching, about how we got into this unnatural and undesirable state; and how best we could get out of it, especially the exchange rate at which the UK should re-peg.

In this context, with an external objective, the standard reaction function was straightforward; raise interest rates to protect the peg when the Proportion (available fx reserves) was falling, and lower interest rates, in support of the domestic economy, when the reverse was happening. Perhaps for historians, the more interesting question was what else the Bank, and the Government, (because here, even more than with Debt Management, the Government was, and remains, the principal and the Bank the agent), could do to prop up the pound at times of pressure.

The two standard measures to do so were exchange controls over capital movements and borrowing in foreign currency to augment the reserves. Both measures became increasingly used over time, hardly at all before 1900, some foreign currency borrowing in the disturbed period between 1914 and 1939; and then from 1939 until 1979 exchange controls were comprehensively and continuously in place, (the Exchange Control Department had more staff than any other Department of the Bank in the 1960s), while the efforts of successive Governors of the Bank to arrange temporary fx financing from their colleagues at the BIS fill up several of the Chapters in both Fforde and Capie (op cit).

⁵ Strictly speaking, it was supposed to be a 'bimetallic standard' initially, with a de facto gold standard emerging in the early 18th century.

All this changed after the B.W. system collapsed in the early 1970s, ushering in a 'non-system' of floating (but sometimes managed) rates between major zones, and pegged, or fixed, rates within zones, such as the Eurozone. In this latter context, how was a 'floater', such as the UK, to manage macro-monetary policy?

After a confused, and disturbed, few years, 1972-77, the answer in the UK was to become a 'pragmatic monetarist' with targets for broad money, £M3. The Government switched from unwilling acceptance (Labour 1977-79) of such a monetarist approach to zealous adherence (Thatcherite Conservative 1979-85), whereas the Bank remained pragmatic and sceptical throughout. While the effects on policy outcomes, 1981-85, were much as desired, i.e. falling inflation and a strong recovery from the deep recession of 1980-82, monetary targetry itself performed poorly, with velocity proving to be unstable and an inability either to forecast or to control £M3. Doubts were cast over which was the 'best' aggregate to track, and subsequent targets for multiple aggregates were not conducive to credibility. This led Lawson, when Chancellor, to return to a form of pegging, first shadowing the Dm and then joining the Exchange Rate Mechanism.

Fortunately, when the UK was ejected from the ERM in September 1992, a much more robust monetary control mechanism had become available, in the guise of a (flexible) Inflation Target. This was successfully introduced in 1992 and from then onwards became the touchstone of monetary policy. This new macro-monetary regime played a significant part (quite how much is debatable) in making the years 1992-2007 into a NICE (non-inflationary continuous expansion, to use Mervyn King's phrase) period.

Since 2008/9 the Bank has, however, struggled, like many other Central Banks, despite unparalleled expansionary policies, including a four-fold expansion in its own liabilities (i.e. the monetary base) to bring about a strong recovery or to return inflation to its 2% target. Since the problem has been an inability of instruments to hit the target, it is not clear why this might indicate that the target itself needed reconsideration. Nevertheless some unhappiness with current macro-economic outcomes has been leading to some (but not yet much) questioning both of monetary mechanisms and targetry; though there has been much greater discussion about the appropriate conduct of fiscal policies.

3. The Bank of England and People

3(i) The Bank of England as a commercial bank, and its connections with the public

The Bank began as a commercial bank, albeit with some special privileges and the advantages of being the Government's preferred bank. It extended normal (for its day) services of a bank to all clients, whether Government (as already discussed), other (country) banks (to be discussed in the next Section) or non-bank private clients. Given this status, it rapidly built up a comparatively large balance sheet. In Table 1 below, we show data taken from Bank of England for each twentieth year from 1700 to 2000. Unfortunately we cannot split either deposits, nor obviously notes in circulation, into the sectoral holdings by government, other banks and non-bank private sector, until 1833, when we could use estimates from Huffman and Lothian, JMCB (1980). But even these are of limited value since they cannot split deposits at the Bank into bank and non-bank categories, and make no allowance for Bank notes, or specie held within other banks rather than by the public. Thus their estimated fall in velocity of high powered-money could have been mainly due to a relative fall in non-bank deposits at the Bank.

Table 1

	Liabilities, £			
	Notes In circulation	Capital	Rest	Deposits
1700	1,616,839	2,201,172	94,767	118,030
1720	2,493,968	5,559,996	145,062	1,638,821
1740	4,349,366	8,959,996	307,652	3,906,527
1760	4,809,102	10,780,000	297,447	3,104,315
1780	8,032,060	10,780,000	1,347,409	3,154,893
1800	16,122,102	11,642,400	3,661,150	4,265,575
1820	22,082,909	14,553,000	3,520,879	3,347,555
1840	15,720,413	14,553,000	2,878,073	7,801,320
1860	20,645,310	14,553,000	3,680,876	21,401,325
1880	26,305,410	14,553,000	3,365,771	33,808,763
1900	28,437,985	14,553,000	3,752,158	55,550,312
1920	96,526,440	14,553,000	3,509,269	190,146,815
1940	531,215,913	14,553,000	3,582,920	184,009,879
1960	2,111,915,274	14,553,000	3,898,192	340,800,115
1980	9,651,000,000	14,553,000	0	1,376,447,000
2000	24,918,000,000	14,553,000	0	55,811,447,000

Source: <http://www.bankofengland.co.uk/research/Pages/onebank/balancesheet.aspx>

Deposits from the general public always represented a small proportion of Bank liabilities, and they became smaller over time, both relative to notes in circulation, and to the aggregate money stock. There were a variety of reasons for this. First, as Clapham noted (Vol. 1, p. 215), the Bank traditionally focussed its private business and operations in London; thus “In the conduct of its private business the Bank... lived up to its old nickname of the Bank of London. Only a London resident could have a discount account, and very few non-Londoners... deposited money with it.” As the amalgamation movement (see Sykes, 1926) among small country banks took place in the latter half of the 19th Century, the Bank of England stood aside. This resulted in the establishment of comparatively huge joint-stock, limited liability, commercial banks, whose individual size ultimately came to dwarf that of the Bank of England.⁶ As they all had their headquarters in London, (apart from the Scottish banks, Royal Bank of Scotland, Bank of Scotland and Clydesdale), they became known generically as the London Clearing Banks.

Second, those who managed the Bank, the Court of Directors, never saw it as a profit-maximising institution, particularly after Ricardo’s attack on its seignorage profits in 1816 (ibid). It had special responsibilities and obligations, e.g. to maintain the Gold Standard and to support and to advise the Government. So long as the conduct of these duties was consistent with a sufficient return to satisfy the shareholders, there was no drive to maximise returns or to expand business. So few conscious steps were taken to drum up new deposit business.

Third, and most important, the role of the Bank as a Central Bank (e.g. in setting money market rates and quality standards in bill markets, and in seeking to maintain financial stability, as in the first Baring crisis (1891)), was considered by the increasingly (self) important London Clearing Banks from about 1900 onwards to be inconsistent with the Bank’s residual role as competitor with those same banks for commercial business, (see Goodhart, 1972, pp 100-117). Indeed, the London Clearing Banks even considered establishing a rival Central Banking body in the years around 1910. In the event, however, an unpublished concordat was reached whereby the Bank would allow its existing commercial business to run off, and not tender for any such new business, while the Clearing Banks in return would accept the Bank of England’s leadership as Central Bank. Thus, from 1914 onwards

⁶ Though, with the advent of QE, the Bank’s balance sheet has ballooned recently, while that of some of the Clearing Banks, e.g. RBS, has declined.

the Bank effectively ceased to be a commercial bank, though vestiges of its prior commercial business hung on for several decades.

3(ii) The Bank as Chief Note Issuer

The main connection that the Bank has always had with the general public has been in its role as note issuer. From the start, almost all other London bankers ceased issuing their own notes, (see Clapham, Vol. 1, p. 162; 'they found that the Bank note and the cheque met their needs'). But outside London the Country Bankers continued to issue notes, with notes and coins rather than deposits being then treated as 'money'. Although the greater prestige and solidity of the Bank will have meant, almost certainly, that BoE notes will have gained share, possibly considerably so, of total bank note issue in England and Wales prior to 1844, (but not in Scotland and probably not in Ireland), even so the procyclicality tendency of country bank note issue in England remained a continuing concern, (Thornton, 1802).

Naturally the Currency School, aiming to control monetary growth (which in this case was assumed to be synonymous with note issue), wished to halt such country bank note issue. This was done in the 1844 Bank Charter Act. As Clapham notes, Vol. 2, p. 183:-

“No one but a banker who issued notes on 6 May 1844 may issue in future, and Parliament may at any time stop such issue entirely: no bank's notes may exceed their average in the twelve weeks ending 26 April 1844; a lapsed issue cannot be resumed; and a partnership the number of whose partners rises above six may no longer issue.”

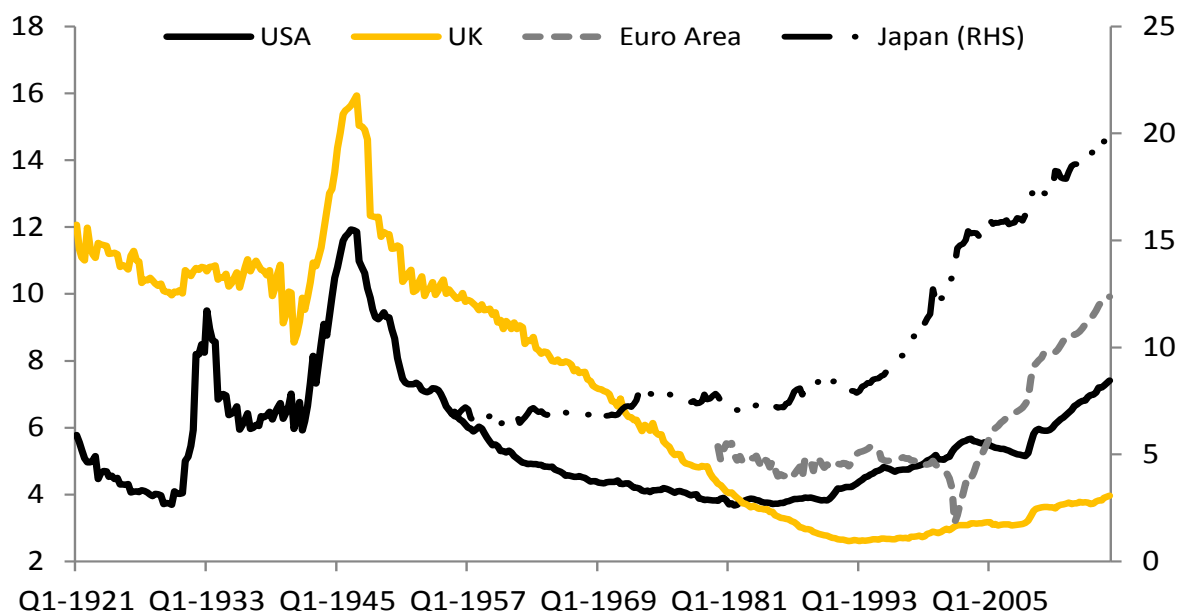
Effectively from 1844 onwards, with the exception of the Treasury (Bradbury) issue in WWI (already noted) the note issue of England and Wales was concentrated solely in the hands of the Bank of England. But the Bank's lowest denomination note was £5, so for the ordinary working family money took the form of coins.

Bank note issue remains entirely passive, meeting demand, (now mainly from banks to fill ATMs), from the store of available, but unissued, notes in the Banking Department of the Bank. The main concern with note issue nowadays is the prevention of counterfeiting, (e.g. by holograms), durability, (e.g. by now substituting polymer for paper), and symbolism, (e.g. in the choice of portraits). Also the Bank has been careful to restrict the value of the top denomination to £50, in

order to make the use of currency in facilitating black and grey economy less easy, see Rogoff (2016), *The Curse of Cash*.

Currency usage surges during war-times, owing to dislocation and the inability to establish repeat use credit and trust relationships. Figure 4 below shows the ratio of currency to deposits from 1921 to 2016. Unlike the USA, where there was widespread concern about the solvency and safety of US banks, the C/D ratio did not increase sharply during the 1930s in the UK. For a brief period in 2008/9 there was a surge in the demand for £50 notes that was probably related to nervousness about UK bank solvency. From 1945 until about 1995 the C/D ratio declined steadily, under the influence of technological improvements in payments transactions, starting with greater usage of banks and cheque payments, followed by plastic (debit and credit) cards, and later electronic payment mechanisms. More recently, however, the C/D ratio has been rising again, under the influence of sharply falling interest rates and the growing use of cash in the grey economy to evade higher levels of taxation, see Ashworth and Goodhart (2017, forthcoming).

Figure 4: Currency-to-GDP ratios (%)



Source: Ashworth and Goodhart (2017), Friedman & Schwartz (1963), US Bureau of Economic Analysis, US Federal Reserve Board, Bank of England, Bank of England Three centuries of macroeconomic data – version 2.2, July 2015 (UK GDP data annual prior to 1955), UK Office for National Statistics, European Central Bank, OEF, Bank of Japan, Cabinet Office of Japan. For Japan we use Gross Domestic Expenditure until the end of 1979 and Gross Domestic Product subsequently.

3(iii) The Bank's Proprietors (Shareholders)

In his Appendix presenting the dividends on Bank of England stock, Clapham, (op. cit., Appendix A, p. 428), notes at the bottom that "Steady dividends aimed at before 1847 and from 1897: the intervening half-century is that of maximum competitive activity and fluctuating dividends." Perhaps in the early period, pre 1847, the Bank kept dividends steady, partly to counter criticism about seignorage being siphoned off to the benefit of wealthy insiders and, in the good years, to build up the strength of the Bank. But after 1847 the Bank Charter Act forced it to hold a high proportion of non-interest bearing notes in the Banking Department, where its profits could mostly be made. After 1844 most, and after 1928 all, of the seignorage income arising in the Issue Department went straight to the Treasury. Meanwhile, its macro-monetary policy role led it to push up interest rates during dangerous periods, when fewer clients wished to borrow, except as a Last Resort, and to lower rates when funds were flowing into the UK. On such occasions the Bank often had difficulty in keeping money market rates in line with Bank rate (Sayers, 1936), so the Bank would lose business to the joint stock banks. So, its most profitable periods tended to be in crisis years.

I had always thought from my reading of the literature, (e.g. Sayers, op cit, Vol. 1, p. 11), that there were some general problems involved in *both* managing the financial system *and* maintaining the dividend in the decades prior to 1914. Certainly the commercial banks and the Treasury would have liked the Bank then to hold more gold reserves, in order to avoid sharp movements in interest rates as external conditions altered (i.e. to be more like the Banque de France). But that would have meant that the Bank would have needed a larger balance sheet to maintain its profits, and that would have led to more competition with those same commercial banks. Moreover, how did the Bank reconcile its dual duty to the country and to its proprietors? An Inspector of Branches, Edey, see Clapham, Vol. 2, p. 372, wondered ,

"whether the Bank's dual position could be maintained. Was it to be "duty to the public" and care of gold, or duty to the proprietors – mostly "trustees, spinsters and clergymen" – and the dividend? If the former, the Bank might as well be nationalized and its stock turned into Consols; to him a drab prospect. To what the latter might lead he did not stay to consider."

In effect, I had believed that it was the former choice that was adopted around that time; so that Bank stock became treated as a (riskless) bond with a quasi-constant dividend, and nationalisation in

1946 led, in practice, to the transformation of one version of riskless debt into another. But some recent research by my discussant, Forrest Capie, with his co-author, Mike Anson, the Bank's archivist, (2017), shows that the profitability of the Bank, and with that the returns and dividends on Bank stock in the years up until 1946, were a good deal greater than I had appreciated.

3(iv) The Bank's Directors, Governors, Court and Staff

The proprietors, i.e. the shareholders, of the Bank ceased, after the first few years of its existence, to play any significant role in the selection of management of the Bank. Instead, the management, in the form of the Court of Directors, was a self-selecting body, choosing candidates from amongst the financial aristocracy of the City, (with the exception of commercial bankers, who were excluded since they competed with the Bank and were also held to be, prior to about 1890, of lower status). The Directors generally held full-time roles in their main jobs, e.g. in the Accepting Houses, and worked only part-time at the Bank. Once they had served long enough as Directors, and both wanted to do so, and were viewed as sufficiently capable, they would become first Deputy Governor, and then immediately the next Governor, each for two-year full time stints. Prior Governors, having 'passed the Chair' would often remain on the Court for quite a few years to provide experienced advice.

All things considered, this system worked better than might have been expected. It lasted until 1914. Then the problems of war-time finance became so complex that it was felt right to continue with Cunliffe, until his personal shortcoming became too great. Shortly thereafter he was followed by Montagu Norman. In the difficult financial conditions of the post-war period, his expertise and command of the issue was viewed as irreplaceable, and he became a fixture, (Sayers, 1976). After his departure, and nationalisation, the Governor and the Deputy Governor(s) became appointed by the Government, normally for a five year period, once renewable. This has now changed once again with the arrangements made for the present Governor, Mark Carney, involving a single period of office, potentially lasting eight years.

Until the interwar years, there was a huge gulf between the Court, the managing body, made up of (mostly part-time) upper-class gentlemen⁷ (no ladies, of course); and the staff of the Bank, the clerks, usually from a middle-class background. Members of staff could rise to leadership roles, rather like non-commissioned officers (NCOs) in the army, such as Chief Cashier, Secretary, etc., but no further. Perhaps the best known Bank official ever to work there was Kenneth Grahame, author of *The Wind in the Willows*, who became the Bank's Secretary, but he left under a cloud for daring to express some criticism of Cunliffe.⁸

During the interwar period this gulf between the Court and the Directors on the one hand, and the Bank's Staff narrowed considerably. About a decade after WWII, the relationship reversed. There had been a claim that a Bank rate change had been leaked, and used for insider dealing, by a member(s) of Court, who, of course, mostly had other City jobs. Although nothing was ever proven in the Bank Rate Tribunal (1955), it was agreed that the Court could no longer be consulted in *advance* of policy changes. So the Court became a somewhat honorific body, a 'sounding board', and a means of checking on the Governors and on the efficiency and structure of the Bank, but largely divorced from policy making. In recent years, however, the growing emphasis on financial stability and prudential issues, where the procedural structure was less clearly defined, has led to a revised role for the Court as an independent arbiter of the process, alongside the Treasury Select Committee (TSC) of Parliament.

Even with such a narrowing gulf, the first Governor to be appointed who had worked his way up through the Bank's staff was L.K. O'Brien (1968-73), to be followed in this by Eddie George (1993-2003). King (2003-13) went into the Bank, as Chief Economist, in 1991. Several of the recent Deputy Governors have previously come from the Staff, but the majority of the current Deputies have been outside appointments, many from the Civil Service, especially the Treasury. The staff are now professionals, rather than clerks, with a sizeable proportion of them being trained economists.

⁷ Though Ricardo dismissed them as a group of traders, and Bagehot described them as 'merchants'.

⁸ There is an apocryphal story that Grahame got his own back by modelling the character of Mr. Toad on Cunliffe.

4. The Bank and the Banking System

4(i) Managing the payment system

Once the Bank of England had been established, its privileged position soon made it into the dominant (commercial) bank in London. So, a pyramid of inter-bank relationships then developed, with the other London banks holding deposits with the Bank of England, and the myriad of small country banks in turn holding correspondent relationships with their own London bank contact, in each case to provide for them what they did for their own clients in their own locality, for example to hold deposits with the Bank (or London correspondent bank) and to borrow from it at times of need. Perhaps the most important of such banking services was to facilitate payments. Rather than transport gold specie, at great cost and some risk, around the country, a country bank, or indeed any depositor, at the Bank could arrange for a payment to be made by drawing on (their deposit at) the Bank or their correspondent. Economies of network scale rapidly led almost all the major financial intermediaries in the UK (including in this case the major Scottish and Irish banks) to establish correspondent relationships with London, so payments could be effected over the books of the Bank.

So the Bank became the manager of the UK's payment system, and has remained such throughout its history, see Norman, Shaw and Speight (2011). From time to time it has introduced various technical improvements, such as Real Time Gross Settlement (RTGS), but these have been essentially methods of speeding up, and/or reducing settlement risk, in a process which remains one of clearing payments over the ledger pages (once on paper, now electronic) of the Central Bank. Now, however, there is a possibility that, rather than clearing payments over a *central* ledger (at the Central Bank), this could be done over a *distributed* ledger, using blockchain technology. Whether this latter would still need a trusted Central Party to run, and what role a Central Bank, such as the BoE, would have in that process, assuming that it does go ahead, are questions whose answer lies in the future.

4(ii) Lender of Last Resort

In some ways it is a pity that the term 'Lender of Last Resort' has become so universally used. Country, and other commercial banks, would in the early days, apply to the Bank, as their London

correspondent, for a loan, just as any client would go to their own bank to borrow. Under normal circumstances such a correspondent would choose alternative sources of funding, e.g. from the Bank, the money market, discounting Bills, etc., depending on terms and conditions.

The phrase Lender of Last Resort, coined by Sir Francis Baring (1797), referred to panic conditions, when other usual (market) sources of liquid funds had dried up, and the Bank was (as the strongest bank in the country) the sole remaining source of additional cash and liquidity. The initial and proper meaning of LOLR related to occasions when the whole banking and financial system might become dysfunctional, as in 2008/9. Unfortunately its meaning has become misinterpreted, so that a bank seen to be borrowing from a Central Bank is often assessed to be only doing so as a Last Resort, which naturally has carried with it the danger of massive reputational loss, i.e. serious stigma, and has become a self-reinforcing equilibrium.

The role that the Bank *should* play in panic conditions was, however, problematical. Most often the panic would lead *both* to an external (over the foreign exchanges) and to an internal drain of gold from the Bank. As guardian of the Gold Standard, the natural response of the Bank would be both to raise interest rates *and* either to refuse, or to toughen the terms on, requests for loans. Instead, both Thornton (1802) and Bagehot (1873)⁹ argued that the Bank must seek to stem the panic by combining increased interest rates with ample lending (though after 1844 this might involve suspension of the Bank Charter Act).

But at a time of panic, when asset prices in markets were tumbling and everyone was struggling to increase liquidity, how was the Bank to avoid risking its own solvency and to prevent those who did not really need extra liquidity from borrowing? The answer that Bagehot gave was to combine high interest rates (n.b. he *never* uses the word 'penalty') with the requirement that such lending only be done on the basis of first-class collateral, basically government debt or best bank bills.

⁹ Thornton's book on *The Paper Credit of Great Britain* not only precedes Bagehot's *Lombard Street*, but it also is more profound. It is a minor scandal that Bagehot fails to cite his predecessor.

In their study of the 'Political Foundations of the Lender of Last Resort', Calomiris, Flandreau and Laeven (2016) state that "the 1833 Act was a watershed". Prior to that, notably in 1825, the Bank had failed to act as an effective LOLR, partly because of the usury ceiling on interest rates, partly because it may have been trying to maximise profits. They further note that "The parliamentary discussion of the decision to make the Bank's notes legal tender made it clear that legal tender status was intended to empower the Bank to act as an effective LOLR", p. 22.

With the Bank being competitive with other banks for commercial business in the 19th Century, there was no question of it acting as a direct supervisor of other banks, either on or off site. So the Bank then had no direct evidence of the solvency of those approaching it for loans, and in any case, then and now, solvency is a fuzzy concept, depending, *inter alia*, on the actions taken by the Bank to stem the panic. So the idea that the Bank should only lend to solvent, but illiquid, borrowers is a misconception. What determined whether it would lend was the quality of the collateral on offer.

Of course, the Bank, being a major player in the money market, especially in rediscounting bills of exchange, had access to a some generalised appreciation, and the normal gossip, about the business of the financial institutions with whom it was dealing. So, if it had reason to believe that a financial institution seeking assistance was in really bad shape, then it could, and would, as in the case of Overend Gurney in 1866, refuse to lend. Equally a financial intermediary, subject to adverse rumours, preventing it from borrowing in the market, could, at its own initiative, open its books to the Bank, to enable the Bank to mount a rescue, as with Barings in 1891. Also note that almost all the participants in the London money market, and many participants in other London financial markets, were technically insolvent after the outbreak of war in 1914. The idea of shutting them down, and with them much of the City, was never seriously considered.

Subsequent history, of the inter-war and post WWII years, is filled with accounts of rescues, some overt, some covert, of financial intermediaries in trouble, see Sayers, Fforde and Capie. Often this involved the thinly capitalised discount houses; again it often involved a considerable degree of forbearance. The life-boat rescue of financial institutions involved in the Fringe Bank crisis, 1973/74, is one of the wider, and better known, such events, (Reid, 1983).

There is no simple dividing line to draw between deciding whether to rescue or to close down a bank in severe difficulties. It depends on circumstances, and weighing up the relative dangers of moral hazard and contagion. In part, perhaps, because this latter is such a difficult exercise, that King in his book, *The End of Alchemy*, (2017), Chapter 7, has suggested reverting back to the original Bagehot position, that Bank of England lending should be done *solely* on the basis of pre-positioned collateral on pre-arranged terms, thereby abstracting completely from the difficult questions about whether the bank/intermediary is currently solvent and would deserve help.

4(iii) Supervising the banks

In the field of macro-monetary policy, the aim of achieving price stability has been a constant. What changed was the intermediate means (the target) for doing so, from Gold Standard, to Bretton Woods peg, to monetary target, to inflation target. In pursuit of financial stability, however, ideas about, (and following on from that the structure of), regulation and supervision have changed dramatically over the centuries and in recent decades.

Until quite recently, large scale government deficits have almost always been connected with war-time. Since war destroyed, rather than created, productive capacity, it was inflationary. So monetary finance of government deficits was anathema to Central Banks.^{10 11} Instead, banks should finance (self-liquidating) bills of exchange, and loans, relating to trade and production; under the quantity theory of money financing such 'real' bills could neither be inflationary, nor dangerous to stability, since the proceeds of trade/output would pay them off. The 'real' bills theory, particularly beloved by the Banking School, reigned supreme until the 1930s.

Under this theory the key to supervision lay in monitoring the quality of the bills of exchange passing through the money market in London, and in discouraging speculative, or 'finance' bills. Meanwhile the institutions that needed most direct, hands-on, supervision were the London Accepting Houses, whose acceptances of bills transformed them into the marketable two-name bills (Nishimura, 1971),

¹⁰ Though the need to finance such wars was often the trigger that led the government to establish a 'central' bank in the first place, as in the case both of the Bank of England and the Banque de France.

¹¹ The editors of this book noted that 'the Swedish Riksbank was superceded by the Riksgäldskonstoret in the 1990s due to war with Russia'.

and the Discount Houses, who made the prime market for such bills. The London Discount Houses had been fostered by the Bank in the second half of the 19th century to provide a buffer between the Bank and the increasingly large London Clearing banks. Neither the Bank nor these banks were keen to deal face-to-face. So the banks lent short-term to the Discount Houses. When base money became tight, the banks would withdraw such funds, and the Discount Houses would borrow from the Bank. Later on, in the 20th century, the Discount Houses also organised themselves always to cover the Treasury Bill tender. Later in the 1990s the arrival of many foreign banks in the City and the development of much more developed wholesale money markets, made the need for the Discount House buffer redundant and they disappeared.

Even so, still in 1974, at the outset of the Fringe Bank Crisis, the *only* financial intermediaries directly supervised by the Bank, in the person of the Principal of the Discount Office, were the Discount and Accepting Houses! Commercial banks were not directly supervised by the Bank before 1979. Initially this was because the Bank and the banks were competitors, but from the 1930s, when the 'real bills' theory broke down during the Depression, until 1971, another theory and structural arrangement took pride of place.

This latter theory was that the root cause of the (US financial and UK industrial) crisis in the 1930s was excessive competition, driving down profitability and making financial institutions reach for yield by taking on riskier assets. And the way to counteract this was to encourage cartels, where pricing competition would be prevented, and interest rates set by some formula or by the cartel. Rather than encouraging small 'challenger' entrants, smaller and/or weaker participants were persuaded to merge with bigger (and safer) members. Montagu Norman followed this general line enthusiastically with all kinds of industry, (see Sayers).

But it was in finance that such cartelisation was most marked. The Building Societies, Finance Houses, London Discount Market were all regimented into Associations, and the London Clearing Banks had their own cartel. Rates were all pegged (relative to Bank rate) at net interest margins that guaranteed reasonable (not far off average), but unexciting, profit margins. Capital ratios and solvency were not seen as a problem. If, at the official interest rate chosen for other macro-economic purposes, credit expansion was too fast, then direct controls, e.g. on hire purchase terms, would be applied. One of the side effects of this system was to make housing finance counter-

cyclical. The BSA's authorised interest rate changes would lag behind money market rates, so when such rates were moving up, funds would flow out of the building societies, and there would be a mortgage famine.

There is more truth to this theory that it is the ultra-competitive challenger banks that represent the main danger to financial stability, than current received wisdom allows, as Northern Rock and Anglo-Irish Bank exemplify. Nevertheless the old cartelised, controlled system had serious weaknesses. It restrained innovation, raised costs, benefited the 'fringe' institutions not subject to a cartel and to direct controls (at the expense of the core), and anyhow was increasingly breaking down by the end of the 1960s under the influence of international competition and technology (that facilitated globalisation), of which the euro-dollar market was the most tangible feature, (Johnston, 1982). Such was the context in which the old system was abandoned in 1971 with the introduction of Competition and Credit Control (C&CC).

Neither the Bank nor the banks in the UK had had prior experience of unfettered competition; C&CC opened a financial Pandora's Box. The big UK banks opted to go for expansion in 1971-73, for market share and glory, rather than profit maximisation and safety. In the early 1970s as in the years before 2007, there are almost always sufficient bank CEOs like Fred Goodwin (of RBS) to force staid bank managers to go along with the dance, and the result can be an exaggerated boom/bust cycle.

Although the application of the 'Corset' in the 1970s represented a partial reversion to the prior regime of direct control, the experience of the 'fringe bank crisis' 1974/75 led to direct supervision of the banks. With the trend being away from direct controls to market mechanisms, the experience of banks failing to control themselves in a socially satisfactory fashion implied that there would need to be external supervision from the authorities.¹²

¹² There is a school of thought, mainly in the US, that attributes the excessive urge by bank managers for expansion to deposit insurance. This was not the case in the UK where (limited) deposit insurance was not introduced until the mid 1970s, and was not made more general until 2007.

There was already a patchwork of supervision in place in the early 1970s. Existing large banks had to abide by certain Bank of England rules, especially re exchange controls; new and smaller banks were authorised, and supposedly looked after, by the Department of Trade; building societies and finance houses had their own oversight bodies. But the main functions of such supervision related to consumer protection, prevention of fraud and adherence to the rules of the relevant association. There had been little, or no, concept that supervision was needed to achieve overall financial stability.

All this changed in the 1970s. The Bank set up a new department, Banks and Money Market Supervision (BAMMS) in 1974 under George Blunden (Capie, Chapter 12), to supervise UK banks. The legal basis for this came later in the 1979 Act. Meanwhile Governor Richardson encouraged the establishment of an equivalent international Basel Committee on Banking Supervision in 1974, initially chaired by Bank officials, Blunden and then Peter Cooke, and often described as the Blunden/Cooke Committee (Goodhart, 2011). The Bank played a pioneering role in the establishment of international regulation and supervision.

There was very little theoretical (nor empirical) underpinning for such new supervisory practices. The general, pragmatic, approach then was to try to identify what were generally accepted to be best practices, often how the most admired banks operated, in the industry, and then to seek to bring all other participants to behave in the same way. It was a micro-prudential exercise to try to raise the standard of behaviour of each individual bank. The idea that enhancing self-similarity might have macro-prudential dangers was not entertained until much later.

It was the 1980-82 Less Developed (Mexico, Argentina, Brazil) Crisis (LDC/MAB crisis) that focussed the attention of regulators/supervisors on capital adequacy. The potential loss from international loans to MAB borrowers then seriously threatened the solvency of the main City Centre banks in NY and some large international banks in Europe. So the Basel I and Basel II Accords focussed on capital adequacy. Prior to the 1970s, concern about systemic stability focussed mainly on cash and liquidity adequacy, with capital largely taken for granted; after the 1970s that reversed, with liquidity, increasingly available in wholesale markets, largely taken for granted.

Governor Richardson had hoped to limit the Bank's direct supervisory involvement to the big banks, with his distinction between banks, as a first tier, and licensed deposit-takers, the second tier, in the 1979 Act. That proved unsuccessful, and the Bank was increasingly forced, for example by the problems of JMB (Johnson Matthey Bankers) and BCCI (Bank of Credit and Commerce International) to expand its supervision to all banks. Also with the arrival of foreign banks in London and the ability of Building Societies to become, or be taken over by, banks, both in the 1980s, the remit of the Bank to act as supervisor to banks in the UK, having been almost non-existent up until 1974, suddenly exploded to being one of the main functions of the Bank, in terms of use of staff and attention.

Then suddenly, and without any prior warning (or subsequent justification), this whole function (and most of the relevant prior staff) was removed by the incoming Chancellor of the Exchequer Gordon Brown in May 1997 to a new Financial Services Authority (FSA), which was to cover all prudential and conduct of business issues for the *whole* financial system, including all non-bank financial intermediaries, as well as banks, such as insurance companies.

But the FSA could not handle a crisis by itself. In any such crisis the Bank would be needed to provide liquidity and the Treasury to cover losses and inject extra capital. So a Troika of all these three parties was established (HMT, Bank, FSA), to monitor and to maintain systemic stability. But when a crisis did arrive, in 2007/8, the Troika did not appear to work well. The FSA seemed fixated on ensuring Basel II capital ratio compliance for banks, and failed to anticipate, or to check, other developing causes of financial fragility, such as excessive leverage, shortages of liquidity, the property boom (and inappropriate LTV and LTI ratios) and RBS' ill-fated purchase of ABN-Amro. The crisis caught the FSA unaware. When it first arrived, in the guise of Northern Rock's difficulties, Governor King cited moral hazard as a reason for limiting assistance. Whether the resulting delay played much of a role in the affair is moot, and the assessment of responsibilities for that whole saga remains contentious.

Be that as it may, the working of the Troika in the crisis was held to have failed, at least in the eyes of the Conservative opposition and their supporting Press. So when the Conservatives returned to power, in 2010, they decided, once again, to revamp the structure of bank supervision. Under their new Financial Services Act, 2012, prudential regulation, both micro and macro, again for the whole financial system not just for the banks, was returned to the Bank, initially in the form of its wholly

owned subsidiary, (but now part of the Bank), the Prudential Regulation Authority (PRA), while all conduct of business issues were hived off into a separate body, the Financial Conduct Authority (FCA). The PRA (and FCA) in turn answer to the Financial Policy Committee (FPC), with external members, which sets the strategy and makes the key policy decisions for the PRA, in the sense that the FPC can issue Directions and Recommendations to them.

Since 2009, bank regulation, especially for capital, but also for liquidity, and for business structure (the Vickers Report), has been tightened, at a time of sluggish recovery and minimal inflation. In this context banks have been casting off leverage and struggling to remain profitable. Banking in the UK remained closer to 'bust' than to 'boom', so the FPC has so far had a relatively easy ride. The need, perhaps, is to succour rather than to constrain the banks. And the immediate concern will be how to cope with Brexit.

Basically, there is no consensus, yet, on how best to manage the problems of maintaining financial stability.

4(iv) Resolving bank failures

Prior to the Great Financial Crisis, the last *major* bank failures in the UK had been in the 3rd Quarter of the 19th Century, Overend Gurney in 1866 and City of Glasgow Bank in 1873. Proponents of a 'moral hazard' viewpoint claim that allowing such failures warned banks thereafter to be more careful: Opponents argued that the Bank and HMT became cleverer in discovering ways of rescuing banks (and discount house) running into difficulties, not only in 1914 but on numerous other occasions, such as the 1974/5 lifeboat.

Be that as it may, Northern Rock in 2007 was followed by RBS and HBOS in 2008, when the latter were bailed out by the injection of public funds. This led to a political storm, not so much because the banks were saved, but more because the *bankers'* bonuses and pensions continued to be paid. So there was a general revulsion from the use of public funds to support banks in difficulties. The new idea is that a wider range of (bond-holding) creditors will be bailed in, to meet bank losses.

Whether this switch of loss-bearing from taxpayers to a narrower segment of bank creditors will prove any more successful, either economically or politically, has yet to be seen. But this new resolution process has to be managed. Under the law as it stood up to the GFC, banks that failed were subject to the standard general bankruptcy law. In the crisis that was seen to be too slow and inappropriate for banks. So the law, applying to banks, has been changed. The Bank has now been also given the responsibility of handling any, and all, instances requiring Resolution, but there was little, or no, prior public discussion in the UK whether it was better to place the 'Resolution Authority' within, or outside the Central Bank.

We will have to wait and see how it works.

End-Note

The years of the 'Great Moderation', 1992-2007, were very successful, almost triumphant, for most Central Banks, notably including the Bank of England, which largely escaped from decades of subservience to HMT and to the Government. But the Great Financial Crisis, 2007-9, has led to change in, and uncertainty about, the proper functions of the Bank. Such change has been most marked for giving Central Banks a further major objective, that of achieving financial stability besides their primarily objective of price stability, but has also led to questions both about the definition of such price stability and the instruments for achieving that. Meanwhile, and quite remarkably, such Central Banks have mostly proved, as yet, unable to bring back inflation to target, (usually 2% p.a.), despite the most expansionary policy measures ever adopted.

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