Britain’s money supply experiment, 1971-73

On 8 September 1980 Bank of England Director John Fforde was summoned to Downing Street to explain why UK money supply growth was overshooting the government’s published target. There he received a Prime Ministerial lecture on the importance of controlling the money supply in the battle against inflation, then running at 16 per cent. Following Milton Friedman’s dictum that ‘inflation is always and everywhere a monetary phenomenon’, the Thatcher government had recently launched the Medium-Term Financial Strategy (MTFS), placing a four-year series of declining target ranges for broad money (£M3) growth at the heart of economic policy. Despite £M3 growth overshooting all these initial targets, inflation did fall below 4 per cent by the time of the 1983 election. But this came at a heavy price. The 1980-81 recession was the deepest in the UK since the 1930s. With nominal interest rates peaking at 17 per cent, and sterling above $2.40, British firms struggled to compete in international markets. Manufacturing output declined by 15 per cent. Manufacturing investment shrank by 26 per cent. GDP fell by nearly 5 per cent, and unemployment reached levels not seen since before the war. As the head of Margaret Thatcher’s Policy Unit, John Hoskyns, later admitted, the government had

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* The author is grateful for comments on earlier versions of this article from the late Lord Croham, Sir Samuel Brittan, Sir Alan Budd, Sir Douglas Wass, William Allen, Tim Congdon, Charles Goodhart, Anthony Hotson, Peter Jay, William Keegan, and two anonymous referees for this journal. Earlier drafts were presented at the Financial History Seminar, the Economic and Social History Seminar and the Contemporary History Workshop in Cambridge, the Monetary History Seminar in London, the Winton Seminar on Monetary History in Oxford, and the Economic History Society Conference in York.

1 £M3 comprised currency in circulation with the public and the sterling deposits of UK residents with UK banks.

2 In this article ‘1980-81’ means the two calendar years 1980 and 1981. ‘1980/81’ means the financial year ended April 1981.

‘accidentally engineered’ a major recession with its misguided attachment to monetary targets and ‘done the economy a great deal of damage by mistake’.

Fforde was an ironic choice for a lecture on the importance of controlling £M3. In 1971, he had designed a previous attempt to control the money supply, Competition and Credit Control (‘CCC’), identified by the Bank of England’s historian, Forrest Capie, as ‘the biggest change in monetary policy since the Second World War’. Since the war, the authorities had sought to control the largest counterpart of the broad money supply (M3), bank lending to the private sector, with a raft of quantitative and qualitative controls. CCC swept these away. Henceforward, bank lending would be controlled on the basis of cost i.e. through interest rates. Loans would be granted to those companies and individuals that could pay the highest rate, rather than to those that fulfilled the authorities’ qualitative criteria within the overall quantitative restrictions previously imposed on the banks. By allocating bank credit on the basis of cost, CCC replaced years of credit rationing ‘by control’. Out went the restrictions on lending to less-favoured sectors and ceilings on bank advances that had long been a feature of British banking. In came the ‘interest rate weapon’ – more active use of Bank Rate to control the broad money supply.

Capie identifies three strands behind CCC: dissatisfaction with lending controls, a desire for a more competitive banking sector, and a renewed emphasis on controlling monetary growth. He prioritises the first two, arguing: ‘it was 1976 when something drastic needed to be done and International Monetary Fund (IMF) financing was needed and the knowledge that this time the IMF would demand determined action on containing monetary growth before serious attention to monetary targets

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6 M3 comprised currency in circulation with the public and UK residents’ deposits with UK banks.
took place. This article agrees that Bank frustration with lending controls provided the impetus for monetary reform. But this was a longstanding concern that had already generated a number of unsuccessful proposals. In 1970, Prime Minister Ted Heath’s refusal to raise interest rates in the face of rising inflation, and the prospect of prolonged lending controls at tighter levels, provided the final spur. The IMF did play a critical role. But this was several years earlier than Capie believes. In 1968, the Fund provided the theoretical catalyst for the change that produced CCC with a monetary seminar involving UK officials. It also, inadvertently, added to the practical reasons for change. The credit squeeze imposed on the banks after the 1967 sterling devaluation tested the existing monetary framework almost to destruction. In 1971, after a thoroughgoing review, the Bank believed it had identified a stable demand-for-money function and that it could control monetary growth by manipulating interest rates. This gave officials the confidence to sweep away the post-war system of controls and focus on the money supply instead.

CCC was not a success. The unpublished M3 target for 1972/73 was 20 per cent. The outturn was 27 per cent. Two years later, inflation peaked at 26.9 per cent, apparently vindicating Friedman’s claim that excess monetary growth leads inexorably to higher prices after a long and variable lag. Seemingly unaware of this attempt to control the money supply by a government of which she was a member, Thatcher claims that her own administration ‘broke’ with post-war economic planning by seeking to regulate ‘those things which government could control – namely the money

supply and government borrowing’. The principal architect of the MTFS, Nigel Lawson, suggests that its purpose was ‘to confirm and consolidate the complete change of direction on which we had embarked’. Geoffrey Howe is more measured, recognising that the MTFS was ‘a logical development of the ‘letters of intent’ which our Labour predecessors had been obliged to send to the IMF’. Howe’s former adviser Adam Ridley has referred to the MTFS as ‘the embodiment of a rejuvenated IMF framework’. The MTFS was a less-radical departure than some of the memorialists claim, however unwittingly. As Steve Ludlam had to remind an academic audience, published money supply targets preceded the IMF’s arrival in 1976. This article shows that unpublished targets predate the 1976 IMF loan by four years. It explains why the Heath government had as much difficulty hitting its unpublished M3 targets in the 1970s as the Thatcher government had hitting its published £M3 targets in the 1980s. The target range for £M3 growth in 1980/81 was 7-11 per cent; the outturn was 19.1 per cent. This time, rapid monetary growth was not followed by rising inflation. This dealt a sizeable blow to the monetarist theory underpinning the MTFS. Treasury ministers invoked Goodhart’s Law – ‘any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes’. But Goodhart’s Law was not new in the 1980s. It was first outlined in 1975 in response to the authorities’ failure to hit their money supply objectives

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9 In 1975, Mrs Thatcher asked Alan Greenspan ‘why is it that we in Britain don’t have an M3?’ Quoted in C.H. Moore, Margaret Thatcher: the authorized biography (London, 2013), p. 319; M.H. Thatcher, The Downing Street years (New York, 1993), p. 97.
14 C.A.E. Goodhart, Monetary theory and practice (London, 1984), p. 96; Lawson, View from no. 11, p. 646.
between 1971 and 1973. Conservative policymakers, Bank officials, and Treasury civil servants drew different lessons from the failure of the 1971-73 money supply experiment. This would have profound consequences for British economic performance in the early 1980s.

I

British monetary policy in the decade before CCC was guided by the findings of the 1959 Radcliffe Report. The Report rejected the idea that the Bank should seek to control the money supply. In an open economy with a sophisticated banking system, it was not within the Bank’s power to control the amount of money in circulation. Nor, given the ‘haziness’ of the links between the money supply and final economic objectives, such as growth and price stability, was it clear that it should even try. In any event, with sterling fixed under the Bretton Woods exchange rate system, monetary policy was primarily directed towards defending the pound. If there was a domestic role, it was to support fiscal policy in managing aggregate demand.

It took the IMF’s intervention in the 1960s for the UK authorities to elevate the role of monetary policy. Initially, this took the form of quantitative ceilings on bank lending to the private sector. The Radcliffe Report warned that ceilings were inimical to a competitive banking system. They froze aggregate lending at an arbitrary date and stifled innovation in the economy – banks were more likely to extend rationed

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16 Radcliffe committee on the working of the monetary system (‘Radcliffe’), Cmd 827 (London, 1959), para. 504.
17 Radcliffe, para. 523.
18 Radcliffe, para. 527.
Credit to firms with which they enjoyed longstanding relationships. Yet, ceilings were in place for most of the 1960s. This is because attempts to run the economy at full employment led to a succession of balance-of-payments crises as imports increased and exports were diverted to the domestic market. With a chronic shortage of foreign currency reserves in the 1960s, current account deficits often meant recourse to the IMF. Credit facilities in 1961, 1962, 1963, and August 1964 came with few conditions. The shift in emphasis came after loans to the Labour government in November 1964 and May 1965. This second loan was granted only after the Chancellor, James Callaghan, agreed to the Fund’s request that a ceiling be placed on bank advances to the private sector.19 As the Treasury points out, ‘the Government’s undertakings to the IMF as a result of the extensive use of the Fund’s facilities during this period compelled the authorities to modify their approach to monetary policy’.20 As a result, ‘greater attention was paid to money supply and to domestic credit creation’.21

Devaluation in November 1967 was accompanied by a request for a further $1.4 billion IMF stand-by. Callaghan agreed to limit the government’s borrowing requirement to £1 billion in 1968/69 and acknowledged ‘the expectation at present that bank credit expansion will be sufficiently limited to ensure that the growth of the money supply will be less in 1968 than the present estimate for 1967’.22 This passage was carefully drafted to avoid the impression that the British had been forced to accept a money supply objective.23 It certainly fell short of the conditions imposed upon developing nations, whose loans were phased according to their meeting

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19 Control of credit in the private sector 1965-1971, Treasury Historical Memorandum no. 21, TNA, T267/30, p. 5.
20 ibid., p. 3
21 ibid.
performance targets. But with sterling forming the first line of defence for the entire Bretton Woods system, the British were allowed to draw down the full $1.4 billion immediately.\textsuperscript{24}

British officials were uneasy with this increased emphasis on monetary policy, and particularly with the IMF’s preferred aggregate, Domestic Credit Expansion (DCE), which adjusted £M3 for official financing of the balance-of-payments. DCE ceilings required strict limits on the growth of bank lending to the private sector. But British banking is traditionally reliant on overdrafts, which can be drawn at the convenience of the borrower. This makes it difficult for banks to predict the exact size of their future lending. Also, within the sophisticated British financial system, it is relatively easy for borrowers to find other sources of finance, thus bypassing lending controls applied to the major banks.

There was also a problem with the gilt market. With over £1 billion of new sales required each year to fund maturing debt, management of the gilt market was perceived to be a fine art. The Bank felt it essential to maintain the marketability of gilt-edged by smoothing price movements. This meant ‘leaning into the wind’. When the market was weak, the Government Broker would buy gilts to maintain price stability and investor confidence. This was the practical consequence of a belief that the gilt market was driven by ‘extrapolative expectations’, that higher interest rates would create the expectation of yet higher interest rates. As the Bank explained, ‘a downward movement, once started, may feed upon itself and threaten to go much further than the authorities would desire, perhaps even to the extent of risking serious demoralisation to the market’.\textsuperscript{25} This was the ‘cashier’s theory’ of the gilt market,

\textsuperscript{24} Britain drew its full quota on 19 May 1968.
whereby lower prices meant lower demand, until the market fell to a level at which buyers could be confident of making capital gains as prices rebounded. The Bank believed that published targets would exacerbate the problem. If the market knew the authorities were missing an IMF target, they could be held to ransom, forced to pay a higher rate on the new issues required to get DCE back on track. By contrast, Fund staff subscribed to the ‘economists theory’, whereby lower prices meant increased demand for gilts. This, they explained, was how bond markets worked elsewhere.

After four days of negotiations following devaluation, and flatly refusing to accept a DCE ceiling, the Permanent Secretary to the Treasury, Sir William Armstrong, proposed that the two sides discuss DCE at a future date, outside the pressurised atmosphere of a loan negotiation.26 A seminar was arranged for October 1968. This came a month after the Fund responded to developing nations’ concerns about the easy terms applied to the UK’s 1967 loan by harmonising the conditions attached to loans to developing and industrial nations. Given the persistent current account deficit, it was likely that Britain would require another loan in 1969. The seminar would help British officials to understand the DCE conditions that would be applied.

The seminar was also the catalyst for a monetary policy review within the Bank.27 The Times reported on 15 October 1968 that the Bank was undertaking a ‘close study’ of the money supply.28 Bank officials had prepared papers for the seminar, but these were largely restatements of the Radcliffian orthodoxy. But, as Fforde pointed out, given the interest generated by the seminar, and the fact that the

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28 ‘Understanding the role of money supply’, Times, 15 October 1968.
Governor intended to emphasise the importance of the money supply in his Mansion House speech two days later, perhaps it was time for a review.\textsuperscript{29} Thus was born the Money Supply Group, comprised of Kit McMahon, Leslie Dicks-Mireaux, Andrew Crockett, and, newly arrived from the London School of Economics, Charles Goodhart. This marked the onset of a fertile period of monetary research within the Bank, mirroring the theoretical investigations underway in academia.

There were few indications at the outset that the exercise would produce a major rethink. In an earlier submission, Crockett had argued that the simple link between the money supply and nominal income assumed by the monetarists and the IMF did not hold for the UK with its sophisticated financial system and variety of close substitutes for money. He concluded, ‘in all, the theoretical case against the money supply is formidable’.\textsuperscript{30} However, as the Group’s work progressed in 1969, the central tenets of Radcliffe collapsed, one by one.

First to go was the Keynesian assumption that money was at one end of a liquidity spectrum of financial assets. Keynesians believed that monetary disturbances ‘rippled through’ financial assets before impacting the real economy. There should, therefore, be a high interest elasticity of demand-for-money. Small changes in interest rates should have a large effect on the money stock. But as Crockett reviewed the recent investigations into the British data, he found a low interest elasticity of demand-for-money in the UK.\textsuperscript{31} Individuals were equally likely to respond to a change in their preferred (real) money balances by changing their purchases of goods and services, as their holdings of financial assets. Goodhart reported that ‘the general conclusion from these results must be that, certainly in the

\textsuperscript{29} Fforde, ‘The money supply’, 15 October 1968, BOE, 5A175/1.
short run of under two years, the direct link between the quantity of money and interest rates on financial assets is much less strong than many Keynesians expected’.\(^{32}\) This might just mean that ‘Keynesian’ demand-for-money equations had been mis-specified. The transmission mechanism could still be along a liquidity spectrum; it may just be that financial assets were less sensitive to short-term interest rates than had been believed. In any event, if the relationship between the money supply and incomes was weak i.e. if the velocity of circulation was unstable, and causality ran from incomes to money, there still seemed little point in trying to control the money supply.

The Radcliffe Committee had assumed that interest rate changes were offset by changes in the velocity of circulation, leaving incomes largely unaffected. In April 1969, Crockett showed instead that interest rates were a minor factor in determining velocity which was ‘fairly stable’ in the long term.\(^{33}\) If the velocity of circulation was stable, then so was its analogue, the demand-for-money. Indeed the results suggested that the Bank could predict, with a high degree of confidence, the demand-for-money to within three percentage points. With the caveat that the relationship might break down if the authorities stopped leaning into the wind, Crockett stated that ‘the conclusions of this piece of work are generally consistent with the quantity theory point of view as expounded by Friedman’.\(^ {34}\)

In July 1969, the Group’s draft report showed members still holding to the Keynesian belief that the demand-for-money was primarily driven by incomes and not the other way round, as the monetarists insisted.\(^ {35}\) But by October, Crockett had ‘definite evidence that movements in the money supply tend to lead changes in

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\(^{32}\) ibid.


\(^{34}\) ibid.

Applying ‘spectral analysis’, a technique developed in the physical sciences to analyse the relationships between long time series, he had isolated a lead of 2–3 months between changes in the money supply and incomes. The relationship was weak, indicating that the results should be ‘treated with some caution’. Nonetheless, when the Group published its final report, The Importance of Money, a year later, this became: ‘in the United Kingdom movements in the money stock have preceded movements in money incomes’ and ‘in the absence of evidence to the contrary, a consistent lead is a prima facie indication of causation’. This was a major development. But there was one more hurdle to cross. As long as the Bank believed it had to stabilize the gilt market, tight control of the money supply through more frequent changes in interest rates was ruled out. It would take another year for the Bank to modify its approach to the operation of the gilt market.

The delay was caused by the imposition of a DCE ceiling as a condition for the anticipated IMF loan in 1969. The 1965 and 1966 drawings from the Fund were falling due and, with the current account taking an inexorably long time to recover, the Bank had insufficient dollar reserves to repay. There was little alternative to another stand-by arrangement. Given the harmonisation of stand-by criteria the previous September, and the monetary seminar in October, there was no doubt that further assistance would require a DCE ceiling. Nonetheless, when the negotiations began in earnest in May, the British made their objections plain. Labour backbenchers had reacted bitterly to even the weak conditionality imposed in November 1967. They would certainly take issue with performance targets in 1969. The Chancellor, Roy Jenkins, knew that if he overshot a published ceiling, the

37 ibid.
markets would demand higher interest rates, confident that the Bank would have to accept whatever terms were offered to guarantee the gilt sales necessary to continue drawing from the IMF. But if he undershot the ceiling, his backbenchers would demand reflation, as would the more expansionary-minded Conservatives. Given the margin for error in the forecasts, there was a real danger of missing the ceiling on either side.

Confronted with these political and technical difficulties, the new Permanent Secretary, Sir Douglas Allen, formulated a compromise. The British would agree to a published £400 million DCE ceiling for 1968/69, comprised of an unpublished £250 million target, derived from the Treasury forecasts, and a £150 million margin for error with quarterly performance targets laid out in a secret memorandum of understanding. And, instead of a breach of the ceiling triggering a visit from the Fund, Jenkins agreed to three further surveillance missions. These would take place regardless of the DCE outcome. As the Economist pointed out, ‘the most important feature of Mr Jenkins’s letter of intent to the International Monetary Fund is the thinness of the fig leaf that has been stretched over the trigger clause’. Nonetheless, Bank, Treasury, and IMF officials were in no doubt that the DCE numbers were performance criteria and that the number to ‘hit’ was the £250 million target rather than the £400 million ceiling. When the July 1969 forecasts showed annualised DCE of £448 million, the Treasury immediately drew up contingencies to get back below the £250 million target.

Technically, DCE does not qualify as a money supply target, since it incorporates the balance-of-payments. However, as the Treasury explained, ‘a money

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supply objective is implied by the official commitment to a DCE ceiling and to a balance-of-payments target’. A DCE target of £250 million in 1969 implied an M3 growth objective of £550 million (3.7 per cent), assuming the desired £300 million current account surplus was achieved. In the event, the improvement in the current account during the summer of 1969 meant the government had little difficulty in meeting the DCE ceiling. However, as Goodhart points out, the fact that the external balance improved during a period of monetary targeting contributed to ‘a tendency to turn towards other monetary indicators as a guide to the appropriate policy for achieving domestic internal objectives’. The authorities may have been sceptical, but monetary aggregates were now more respectable than at any time since the Radcliffe Report.

If the IMF provided the theoretical catalyst for CCC, it also helped to provide the practical catalyst. As part of the austerity measures announced in November 1967, the banks were told to freeze aggregate lending to the private sector. A year later, with the current account still in deficit and another IMF mission due, the ceiling was lowered to 98 per cent of its immediate pre-devaluation level. With inflation running at nearly 5 per cent, this was a significant tightening of policy and caused friction with the clearing banks. By the autumn of 1969, the banks had been in breach of their ceilings for nearly a year. This led to the formation of the Bank-Treasury Working Group on Control of Bank Credit which, after re-forming as the Monetary Policy Group (MPG), was charged with formulating an alternative to ceilings in time

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44 Goodhart, Monetary theory, p. 72.
45 The ceiling was raised to 104 per cent in May 1969 to include previously-exempt export and shipbuilding finance. In November 1969, export and shipbuilding finance were re-exempted, so restricted lending dropped by 4 per cent, ‘The clearing banks and 104%’, 1 October 1968, BOE, 3A8/1.
for the 1970 Budget. Given the short timescale, the MPG had to limit itself to recalibrating existing instruments. This meant that the Bank could not yet feed in the results of the work done by the Money Supply Group.

The MPG submitted its interim report to the Chancellor in March 1970.\footnote{Interim report on controlling bank lending to the private sector, March 1970, TNA, T326/1065.} Having discounted the alternatives, members settled on abolishing ceiling controls in favour of ‘guidance’ on lending in the year ahead, coupled with more active calls for special deposits to control bank liquidity. (Special deposits required the banks to post a percentage of their gross advances at the Bank during periods of credit restraint). Accordingly, in his April Budget, Jenkins removed the 98 per cent ceiling, while requesting that the clearers restrict their lending to ‘a gradual and moderate increase over the coming year: of the order of, say, 5 per cent’.\footnote{HC Deb., 14 April 1970, vol. 799, c1233.} He also announced a new DCE ceiling of £900 million. The surveillance period for the 1969 IMF loan had expired, so this was not forced upon him. But to the IMF’s pleasant surprise ‘the Chancellor appear[ed] to have fallen in love with DCE’.\footnote{‘Fleming to Finch’, 18 February 1970, IMF, EUR Divisions, UK country desk files, United Kingdom - review of stand-by, January - July, 1970, Box 78, File 1.} To the chagrin of the Bank, and many in the Treasury, Jenkins said he had found DCE useful in imposing discipline on economic policy.\footnote{Finch, ‘UK Stand-By Review Mission – February 1970’, IMF, EUR Divisions, UK country desk files, United Kingdom - review of stand-by, January - July, 1970, Box 78, File 1.} Within the Treasury, this was ‘widely glossed as implying a 5 per cent money supply target’.\footnote{Nagler, ‘Money supply in April/June quarter’, 1 December 1970, TNA, T326/1253.}

After the Budget, the prospect of an imminent General Election meant the MPG had to put concrete policy considerations aside. The Permanent Secretary set it the more abstruse task of investigating the latest developments in monetary theory. The Bank could now feed in the conclusions of its Money Supply Group. At the first
MPG meeting after the Budget, members considered the Group’s report, *The Importance of Money*. The paper was given a sympathetic hearing, with the Treasury briefing noting that ‘a stable demand [for money] function seems well established’.\(^{51}\) There was also ‘some feeling that as a medium-term aim it might be sensible to establish a money supply objective rather than an interest rate objective’.\(^{52}\) But as long as the Bank believed that the gilt market was driven by extrapolative expectations, and was therefore inherently unstable, then more frequent changes in interest rates continued to be ruled out. The Government Broker could not lean into the wind and control the money supply at the same time. *The Importance of Money* did not challenge this assumption, suggesting that ‘aggressive actions by the authorities in markets subject to volatile reactions could cause exaggerated and excessive fluctuations in financial conditions’.\(^{53}\) Nonetheless, Sir Douglas Allen concluded that, ‘the present policy regarding DCE, and the Chancellor’s public announcement of the annual rate of domestic credit expansion expected, had something of the flavour of a money supply objective’.\(^{54}\) The authorities had to devise some way of ensuring that the gilt market did not frustrate their increasing emphasis on the money supply.

The key work was done over the summer of 1970. In early September, Michael Hamburger, on secondment to the Bank from the New York Federal Reserve, reported that approximately 50 per cent of the price volatility of undated gilts could be explained by Eurodollar rates, anticipated inflation, and the forward differential between sterling and US dollar rates. If this were true, then expectations extrapolated from recent changes in Bank Rate were less important than had long been believed.

Hamburger concluded, ‘it is difficult to find any evidence whatever that the increased stress placed on controlling monetary aggregates has led to a deterioration in the behaviour of the gilt-edged market’.\textsuperscript{55} As Fforde explained, ‘if greater flexibility of short-term interest rates were to result in a rise in rates to a level which could clearly be regarded as a peak unlikely to be sustained, expectations could be set up which could lead to a demand for longer-date securities’.\textsuperscript{56} This reconciliation between the ‘economists theory’ and the ‘cashier’s theory’ would become known as the ‘Duke of York theory’. The Bank would march gilt investors up to the top of the hill by raising interest rates. It would then march them down again with successive cuts. This would hopefully allow the authorities to wield the interest rate weapon without imperilling their ability to fund the national debt.

The Bank was already armed with its demand-for-money equations, published in the June 1970 \textit{Quarterly Bulletin}. It could now unleash the ‘interest rate weapon’. As Goodhart points out: ‘The demand-for-money functions appeared to promise that credit and money could be controlled by price (interest rates), so that ceilings could be abandoned. Although some older and more experienced officials doubted all the econometrics (quite rightly as it happened), they wished to embrace this latter message’.\textsuperscript{57} One of those older and more experienced officials was Fforde who, a year earlier, had referred to monetarism as ‘wishful primitivism, born of exasperation with certain intractable economic problems of modern society’.\textsuperscript{58} Yet, in October 1970, he reacted to what he termed ‘the adoption of fairly precise targets for certain monetary aggregates as an object of policy’ by feeding some of monetarism’s key

\textsuperscript{57} Goodhart, \textit{Monetary theory}, p. 11.
\textsuperscript{58} Fforde, ‘Special deposits’, 11 February 1969, BOE, 3A8/2.
principles into his latest proposal for monetary reform.\textsuperscript{59} Instead of prolonging ceiling controls, he proposed to end credit rationing ‘by control’ in favour of rationing ‘by cost’. Capie finds it ‘surprising’ that Fforde should have advocated ‘more frequent and larger variations in short-term interest rates’ in October 1970.\textsuperscript{60} It was not at all surprising. The Bank’s work on the gilt market suggested that the final obstacle to managing the money supply had been overcome.

II

Fforde believed that the arrival of a Conservative government in 1970, committed to injecting more competition into the economy, provided an opportunity for monetary reform. Before the election, the Conservatives had announced that ‘competition is the key principle which distinguishes the Conservative from the Socialist outlook on economic policy’.\textsuperscript{61} In March 1970, Sir Keith Joseph had placed increased clearing bank competition on a list of measures designed to improve economic performance.\textsuperscript{62} Fforde recognised that the likelihood of permanently dismantling ceiling controls would be enhanced by stressing the competitive aspects of monetary reform. There would certainly be no sympathy for anything that smacked of ‘monetarism’ amongst the Conservative leadership. As Joseph’s biographers point out, Heath was ‘a Keynesian by instinct and by intellectual conviction’ who upon meeting Friedman found him to be ‘wholly unconvincing’.\textsuperscript{63} Fforde tailored his approach accordingly.

\textsuperscript{60} Capie, \textit{Bank of England}, p. 486.
Heath’s first Chancellor, Iain Macleod, suffered a fatal heart attack within a month of the 1970 election. The Prime Minister imposed his authority over the Treasury by appointing the economically inexperienced Anthony Barber. Shortly before his first Autumn statement, Barber asked his officials for ‘a basic paper’ explaining DCE and the money supply, ‘subject[s] which he had not yet had time to study carefully’.⁶⁴ With the money supply growing by an annualised 16 per cent, the Chancellor was advised to raise Bank Rate forthwith:

Tightening monetary policy this autumn will require an increase in interest rates…If the rates of growth of the money supply and DCE are to be slowed down by monetary means the authorities must either secure a lower rate of expansion of bank lending than has prevailed recently, or they must sell more gilt-edged stock to the non-bank public. Or they must do both.⁶⁵

On 20 October, ‘feeling uneasy about the expansion of the money supply’, the Governor pressed for an immediate two-percentage point rise in Bank Rate (to 9 per cent).⁶⁶ Barber replied that ‘he was keenly aware of the criticism of the expansion of the money supply in the press and elsewhere’ but 8 per cent would be perceived as a ‘crisis rate’, 9 per cent would be ‘an entirely new policy’.⁶⁷ The Governor pressed him again:

Inflation was the main problem, and the control of the money supply must contribute to the solution of that problem. Recently the control of the money supply had not been adequate. He could certainly not guarantee that an

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⁶⁷ ibid.
increase in Bank Rate would solve the problem of inflation, but it should make things easier. 68

Two days later Barber asked the Prime Minister for a one percentage point rise. He was rebuffed:

The Prime Minister thought that an increase in Bank Rate at this point in time would seriously diminish the good effect of the Chancellor’s statement as well as being inconsistent with everything which he and Mr Macleod had said in Opposition. An increase would simply not be understood, at a time when there was no external outflow, and would give rise to the suspicion that the external position was not as satisfactory as it seemed. 69

Heath’s refusal to raise Bank Rate in the face of rising inflation explains the urgency the Bank attached to overhauling the monetary system in late 1970. Inflation, which had averaged just over 5 per cent since devaluation, was at nearly 8 per cent. More ominously, earnings had risen 14 per cent over the year, and were forecast to rise by another 15.5 per cent over the next. 70 This threatened to reverse the competitive advantage British exports had gained from devaluation, and three years of austerity.

With incomes policies precluded at this stage, the orthodox reaction to what was perceived to be a wage-push inflation was tighter fiscal policy. But major tax changes were ruled out until the spring Budget and would, in any case, represent a reversal of the government’s growth strategy. With higher Bank Rate also ruled out by the Prime Minister, tighter monetary policy would mean prolonging ceiling

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68 Ryrie, ‘Note of a meeting’, 26 October 1970, TNA, T326/1062.
controls, perhaps at an even tighter level. Fforde ‘foresaw grave difficulties in attempting to force banks – in effect by directive – to bankrupt some of their customers’ if ceilings were lowered and set to work, sending what he himself called ‘a curious and rather emotional note’ to the Governor on Christmas Eve 1970. The note had a galvanising effect inside the Bank. Within a month, the draft outline of CCC had been presented to the Chancellor.

The Bank’s proposal was predicated on shifting the emphasis from bank lending to the broader money supply. This may not be obvious from a simple reading of the document, but after several years of discussion there was near-universal agreement amongst Bank and Treasury officials that control should be directed towards the money supply. Indeed, Treasury adviser Michael Posner’s first reaction to the proposal was to criticise the lack of a precise money supply target: ‘the complete absence of numbers is a major weakness of the paper. To buy the scheme for an extra 1 or 2% in the supply of money would be most attractive: but if we were to fear 5% extra for two or three years, it would not seem worthwhile.’ Sir Douglas Allen agreed, declaring that ‘it should be assumed that it was still desired to have a numerical target for the monetary aggregates’. He expanded two weeks later:

It was likely that the borrowing requirement in the coming financial year would be very large and this raised the question whether the Chancellor should announce any target for DCE and the money supply. Any figure he might give would be in marked contrast for those in the most recent years. On the other hand, the IMF was keen on targets for money supply and DCE and we might, if we had to borrow from them again in 1972, have to produce one.

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73 Harding, ‘Minutes of a meeting’, 22 February 1971, TNA, T326/1261.
There could therefore be advantage in producing one of our own accord this year.\textsuperscript{74}

The Bank’s demand-for-money equations indicated that M3 would have to increase by 11-12 per cent in 1971/72 to accommodate the government’s GDP growth objectives.\textsuperscript{75} Officials considered whether to publish a monetary target. DCE ceilings continued to be ruled out on technical grounds. However:

To publish a percentage target figure for the money supply would raise less problems (sic). But any percentage figure for the year, such as 11% or 12%, would be linked with the Chancellor’s statement at the Finance Houses Association that his policy was to keep the growth of the money supply rather below the going rate of inflation, and the conclusion would be drawn that the Government were expecting a very rapid rate of inflation. Against this background it was felt that the Chancellor’s best course would be to give no figure for the money supply either.\textsuperscript{76}

There was a widespread view that the most useful weapon against what was generally agreed to be cost-push inflation was wage restraint or ‘de-escalation’. As Second Permanent Secretary Sir Alan Neale pointed out, ‘the de-escalation must come first and we do not believe that it can be brought about by restricting the money supply’.\textsuperscript{77} Instead, Barber announced in his 1971 Budget that ‘there would be dangers for liquidity and employment if we sought immediately to reduce the growth of money

\textsuperscript{74} Ryrie, ‘Note of a meeting’, 3 March 1971, TNA, T326/1261.
\textsuperscript{75} Edwards, ‘Note of a meeting’, 17 March 1971, TNA, T338/39.
\textsuperscript{76} ibid.
\textsuperscript{77} Neale, ‘Monetary policy’, 30 April 1971, TNA, T326/1254.
supply to much below 3 per cent per quarter’. The *Daily Telegraph* simply multiplied this quarterly ‘guideline’ by four and assumed that the government was now working with an annual 12 per cent M3 target. This caused consternation amongst officials trying to get away from hooking themselves on published numbers.

In his next public speech, Barber stressed that:

I deliberately set very short-term guidelines for the increase in bank lending and in money supply – 2.5 per cent and 3 per cent per quarter respectively. It would be quite wrong to multiply these figures by four, as some commentators have done, and apply them to the next twelve months.

This sounded hollow when the Bank published the consultative document for CCC a month later. As the Governor revealed, ‘we have increasingly shifted our emphasis towards the broader monetary aggregates – to use the inelegant but apparently unavoidable term: the money supply’.

The Bank also announced an immediate reduction in the liquidity provided by the Government Broker. As the Chief Cashier explained:

Some time before the reappraisal of monetary policy which led up to *Competition and credit control* had been completed, the conclusion had been reached that the Bank’s operations in the gilt-edged market should pay more regard to their quantitative effects on the monetary aggregates and less regard to the behaviour of interest rates.

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80 ‘Speech by the Chancellor of the Exchequer’, 23 April 1971, TNA, T326/1254.
This press seized upon the Government Broker’s partial withdrawal. *The Guardian* stated, ‘we are back to money supply, pure and simple…The Bank will not support the market…If this causes prices to collapse and thus a sharp rise in interest rates, so be it. That is what a money supply policy is all about’. The *Daily Telegraph* questioned ‘the Bank’s timing of its final conversion to the theories of the money supply school when those theories are being called more and more into question’. *The Times* was much happier:

> The new gilt-edged policy is the logical culmination of a process which began in the autumn of 1968, when the International Monetary Fund and independent critics began to place increasing emphasis on the money supply as a weapon of economic policy rather than on the level of interest rates, which had previously been the touchstone of the Bank of England’s operations in the gilt-edged market.

But what of the IMF, which had sparked off the monetary policy review with its October 1968 seminar? The consultative document for CCC was released during the 1971 annual consultation. British officials explained that monetary policy now meant ‘an increase in money supply of roughly 3 per cent in the first one or two quarters of the fiscal year’ and that the new system was ‘well suited to operate towards money supply targets’. The Fund’s subsequent report was clear: ‘the principal aim of the

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83 ‘Has the Bank really eaten its words?’ *Guardian*, 17 May 1971.
85 ‘Simpler plan to control the money supply’, *Times*, 15 May 1971.
new arrangements is to operate toward money supply targets’. But Fund staff, still wedded to DCE, were sceptical: ‘monetary policy should continue to be directed in such a way as to safeguard the foreign position’. They were also concerned that the implied 12 per cent M3 growth target would do little to moderate wage rises, which they agreed were at the root of rising inflation. The Fund may have provided the catalyst for the review that ultimately produced CCC, but in the intervening years the work of, first the Bank’s Money Supply Group, and then the joint Bank-Treasury MPG had taken British monetary policy down a different path.

III

CCC became fully operational in September 1971. Credit rationing by cost replaced rationing by control. The 2.5 per cent quarterly guideline for bank lending announced in the March budget was suspended and the banking cartels were dissolved. What followed was one of the most intense periods of monetary chaos in recent British history. By the time the policy was _de facto_ abandoned in December 1973, M3 had grown by 72 per cent. Britain’s highest-ever inflation, and the worst banking crisis since 1914, followed hard on the heels of CCC. Failure to control the money supply in 1972-73 would shape the Bank’s attitude to monetary policy for years to come.

After launching CCC the next practical consideration was the construction of the autumn 1971 financial forecasts. Previously, the Treasury had incorporated a set of interest rate assumptions into both the financial forecasts and the National Income Forecasts. The head of the Treasury’s Monetary Policy Division, Frank Cassell,

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explained the implications of the increased emphasis on the money supply to the Chancellor:

The financial forecasts were constructed so as to explore the implications of following a particular growth target for money supply; and it has to be decided in the light of the forecasts as a whole whether the chosen monetary policy assumption is one that it would be appropriate for us to adopt as an objective.\(^89\)

At this stage, sterling was still within the Bretton Woods system of fixed exchange rates. This leads Susan Howson to conclude that monetary targets ‘could not be seriously adopted until the government had given up the commitment to the fixed exchange rate’ in June 1972.\(^{90}\) However, after December 1971, sterling was permitted to fluctuate within a wider 4.5 per cent band against the dollar. This provided a larger ‘shock absorber’ for the money supply, since capital flows could increasingly be accommodated by the exchange rate.\(^91\) Also, as both J.H.B. Tew and Peter Browning point out, the return to current account surplus was an important factor in the timing of CCC.\(^92\) With less strain on the currency reserves, monetary policy could increasingly be directed towards the domestic economy.\(^93\) In 1971, Treasury economists were keenly aware of the constraints placed upon monetary policy by the exchange rate:

if we want to hold the exchange rate around a certain level and keep the inflow of funds from abroad within certain limits, we have already in effect determined monetary policy. We cannot have targets for the exchange rate, the reserve inflow and the money supply. We can choose any two of these; and the third then falls out as the residual.\(^94\)

The Bank had sterilised a large capital inflow in 1970/71 by selling gilts to the non-banking private sector, holding M3 growth to 13 per cent. In late 1971, officials were anticipating further external surpluses which they hoped to continue sterilising with gilt sales. With a fixed exchange rate and a money supply growth objective, this meant that the reserve inflow had to fall out of the forecast as the residual. They just had to decide what the M3 objective would be. Since the 1971 Budget represented the last official ministerial pronouncement on monetary policy, the Treasury chose to ‘take at face value the government’s pronouncements’ and fall back on the 3 per cent quarterly guideline, derived from the demand-for-money equations, and announced by Barber in March.\(^95\)

The November 1971 forecast started with a 12 per cent per annum guideline for M3, and finished with gilt sales to the public as the balancing item. As Cassell explained:

\[\text{the main residual in constructing this financial forecast is gilt-edged sales to non-bank investors. We have allowed bank lending to the private sector to be effectively demand-determined, and hence, given the public sector borrowing requirement and the external flow, the figures inserted for gilt edged (or more}\]

\(^95\) Riley, ‘Monetary assumption’, 1 October 1971, TNA, T338/68.
widely, sales of public sector debt as a whole) are simply those that would be
required to keep money supply to its assumed growth rate.\textsuperscript{96}

Treasury officials were uneasy at the emphasis being placed on the Bank’s
demand-for-money equations. This stemmed largely from the Bank’s finding that the
income elasticity of demand-for-money for individuals was 2.1, i.e. for every £1
increase in their income, individuals would demand an extra £2.10 in cash or near
substitutes. Treasury economists felt this was ‘improbably high’; they doubted
whether money could be such a ‘luxury good’.\textsuperscript{97} Consequently, they were not yet
able to recommend a formal money supply target. Nonetheless, the Bank’s interest
elasticity numbers were used to construct the 1972 Budget forecasts and were
published in the March 1972 \textit{Quarterly Bulletin}. The accompanying article stated that
the equations ‘provide a sufficiently accurate statistical explanation of past
movements in the stock of money to be a useful guide for monetary policy’.\textsuperscript{98} This
rested on the assumption that ‘past relationships between income and the demand-for-
money embodied in the Bank’s equations are applicable to the future’.\textsuperscript{99} But the
Heath government was about to embark on an economic experiment that would take
the PSBR and nominal income growth ‘outside the range of previous experience’.\textsuperscript{100}
The dash for growth would force officials to overcome their scruples about money
supply targets.

While the Treasury was rebasing its financial forecasts onto a money supply
objective, the Prime Minister was worrying about how to generate faster economic

\textsuperscript{96} Cassell, ‘Financial forecasts’, 26 November 1971, TNA, T338/68.
\textsuperscript{97} Cassell, ‘Monetary policy and the short-term forecasts’, 25 January 1972, TNA,
T326/1562.
\textsuperscript{98} L.D.D. Price, ‘The demand for money in the United Kingdom: a further investigation’,
\textit{BEQB}, 12, 1972, p. 46.
\textsuperscript{100} ibid.
growth. Barber had announced a 4 – 4.5 per cent real GDP growth target in July.\textsuperscript{103} By the autumn, the economy was growing at half that rate. More ominously, registered unemployment was just below the politically-sensitive one million mark. At a meeting of cabinet ministers, senior civil servants, and businessmen in December 1971, Heath warmed to Sir William Armstrong’s suggestion that ‘we should think big, and try to build up our industry onto a Japanese scale. This would mean more public spending. We should ask companies what they needed in the way of financial and other help, and give it to them’.\textsuperscript{102} As the financier Jim Slater pointed out at the meeting, what companies wanted was lower interest rates.\textsuperscript{103} Heath asked the Treasury how they might engineer a drop in long-term rates. He was advised that ‘a reduction in interest rates by, say, 1%, might … raise the total growth in money supply in the year to around 20%. This compares with the last figure given by the Chancellor, namely 3% a quarter, in the Budget’.\textsuperscript{104} It was also pointed out that long-term rates were off their recent highs. Heath agreed that ‘we should not take any drastic steps to accelerate the present downward trend in long-term rates’.\textsuperscript{105} But his instincts were clearly still against higher interest rates.

With the economy stagnating during the three-day week in early 1972, the Treasury estimated that there was room to grow real GDP by 5 per cent in the year ahead.\textsuperscript{106} Officials had recently increased their estimate of the economy’s annual growth potential by half a percentage point to 3.5 per cent, citing supply-side

\textsuperscript{101} HC Deb., 19 July 1971, vol. 821, c1041.
\textsuperscript{103} Armstrong, ‘Note of discussions at Chequers’, 6 December 1971, TNA, T326/1254.
\textsuperscript{104} ‘Draft minute to Prime Minister from Chancellor’, January 1972, TNA, T326/1562.
\textsuperscript{105} ibid., annotation by Armstrong, Heath’s Principal Private Secretary.
improvements. The British economy appeared to be operating with a large output gap. This is important to understanding why Heath and Barber believed they could grow the economy at more than twice its post-war average. In his 1972 Budget, the Chancellor boosted demand by an estimated 2 per cent of GDP. He also reversed the 1969 decision to disallow interest on personal loans against income tax. Officials warned that ‘the move would result in a big increase in lending by the banks for private consumer spending’. Nonetheless tax relief for interest was a manifesto pledge. It was included in the 1972 Budget.

This could hardly have come at a worse time for monetary policy. Six months after predicating monetary control on the interest rate weapon, that weapon was blunted by making interest payments deductible against tax. For a basic rate taxpayer, the cost of servicing a loan was immediately reduced by 30 per cent. For the highest rate taxpayers, it was reduced by 90 per cent. This measure alone meant it would take much higher interest rates to control bank lending to the private sector and, therefore, M3. It also meant that, far from generating the investment boom the Prime Minister was looking for, the dash for growth would produce an asset and property boom that would crash in 1973 with terminal consequences for a number of British banks.

In his Budget speech, Barber also uttered what The Times called ‘the most important words to be spoken by any Chancellor for a decade’: ‘the lesson of the international balance of payments upsets of the last few years is that it is neither necessary nor desirable to distort domestic economies to an unacceptable extent in order to retain unrealistic exchange rates, whether they are too high or too low’.

The Conservatives were not going to let the pound, re-fixed at $2.60 just three months

107 ibid.
108 Interest payments below £35 remained disallowed.
109 Ryrie, ‘Note of a meeting’, 15 March 1972, TNA, T326/1261
earlier, stand in the way of their growth objectives. The stage was set for the ‘last Keynesian fling’.

The 1972 Budget created an immediate monetary policy problem. The forecast Public Sector Borrowing Requirement (PSBR) for 1972/73 was £3.35 billion (5 per cent of GDP). The Bank estimated that long-term interest rates would have to rise by 1.5 percentage points to induce investors to take up the gilts necessary to fund the deficit, taking them through the politically sensitive 10 per cent level. The alternative was to finance the PSBR by selling more Treasury Bills to the banks. But Treasury Bills were a reserve asset under CCC, and this would increase the banks’ lending capacity, and therefore the money supply. Heath’s opposition to higher long-term rates could mean an estimated £700 million of additional Treasury Bill issuance in 1972/73. This could take M3 growth to an unprecedented 20 per cent. Nervous officials tried to build in some future interest rate flexibility by turning the money supply forecast into a target:

we believe that the right course is to adopt a quantitative (but unpublished) target for money supply, and not to feel that we must at all costs hold to a certain level of interest rates … At the moment, given the present prospects for prices and the intention for output set out in the Budget, the appropriate target for money supply would be a rise of 20% in 1972/73.

The Permanent Secretary wrote to the Chancellor on the day of the 1972 Budget to

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111 After floating for four months between August and December 1971, the pound was re-fixed at $2.60.
114 Ibid.
116 Ibid.
‘recommend the adoption of a quantitative (but unpublished) target for money supply, which in the light of present forecasts and objectives we would put as a rise of 20 per cent in 1972/73’. Barber agreed:

Numerical targets for money supply were not given in the Budget Speech. But the Chancellor has accepted our advice that for the present policy should be directed towards a target rate of growth of money supply of about 20% in the financial year 1972/73 – 20% being the growth which the Bank of England’s demand-for-money equations suggest will be required, given the outlook for real output and prices, if there is to be no significant rise in interest rates from their present levels.

Capie quotes this submission but still maintains that there were no numerical targets for the money supply in 1972. He calls it ‘a truly extraordinary objective’. It is only extraordinary if one believes that the Bank and Treasury were trying to target interest rates and the money supply at the same time. They were not. As we have seen, the reason for Fforde’s urgency in seeking to overhaul the monetary system in December 1970 was Heath’s refusal to raise interest rates in the face of rising inflation. The 20 per cent M3 target agreed by Barber in March 1972 was entirely consistent with this. Far from capping interest rates, officials were trying to ensure the interest rate flexibility that CCC required. Without higher interest rates, the Bank did not believe it could rein in bank lending to the private sector, or sell sufficient gilts to mop up the additional liquidity created by the dash for growth. The Bank

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119 The Governor discussed the 20 per cent target with the Prime Minister at lunch on 5 May 1972, ‘Downey to Cassell’, 5 May 1972, TNA, T326/1563; Capie, Bank of England, p. 646.
120 Capie, Bank of England, p. 646.
estimated that M3 would have to rise by 20 per cent in 1972/73 to accommodate the fiscal stimulus announced in the Budget. Less than 20 per cent and the government might not achieve its 5 per cent real GDP growth target. More than 20 per cent and there might be an additional, unwanted, monetary stimulus. This would run the risk of overheating the economy.

IV

Having secured the Chancellor’s agreement to an unpublished money supply target, the Treasury convened a series of meetings to coincide with the release of the monthly money supply figures. The first took place in May 1972. By then the Bank hoped the distortions associated with the transition away from ceiling controls would have worked their way through the system. By May, it was clear that monetary policy was off-track. The Budget had fuelled inflationary expectations and the gilt-market was thoroughly demoralised. The Government Broker had been a net buyer of gilts and, as Cassell explained, M3 was ‘rising considerably faster than the 20% rate we took as our objective’. The policy implications were clear: ‘a rise in interest rates would follow naturally from holding to the objective of a 20% growth for money supply’. Fforde agreed, opening the meeting by noting that ‘money supply continued to rise at an annual rate of at least 20%, with bank lending to the private sector the dominant expansionary factor’. With a consensus in favour of tighter monetary policy, Barber was advised that:

123 Ibid.
In previous submissions to the Chancellor it has been emphasised that it may be necessary for interest rates to rise if we are to hold the growth of money supply to 20% whether through restraint on the demand for credit or through sales of public sector debt outside the banking system…If the rate of expansion were to be allowed to rise to well over 20%, there would be a serious danger that the monetary boost to demand, combined with the effects of the fiscal stimulus given in the Budget, would make it very difficult to keep the economy under control in 1973.\textsuperscript{125}

The Chancellor agreed; the Prime Minister did not. Despite acknowledging that M3 was growing faster than the 20 per cent ‘envisaged at the time of the Budget’, Heath still refused to raise Bank Rate.\textsuperscript{126} He was concerned that a hike would be construed as a return to the ‘stop-go’ policies of the 1960s.\textsuperscript{127} On 16 June, the Governor and the Permanent Secretary pressed the Prime Minister, once again, for a one-percentage point rise in Bank Rate to be announced five days later, alongside the latest money supply figures. Heath prevaricated, arguing that ‘an increase in bank rate at this point in time would seem to public opinion to be a contradiction of the Government’s policies for encouraging a high rate of economic growth’.\textsuperscript{128} He finally agreed to raise rates on 22 June against the backdrop of the sterling crisis that saw the pound ejected from the European currency ‘snake’.\textsuperscript{129}

\textsuperscript{125} Fogarty, ‘Monetary policy’, 24 May 1972, TNA, T326/1563
\textsuperscript{127} ibid.
\textsuperscript{128} ibid.
\textsuperscript{129} The European currency ‘snake’ was established in April 1972 to enhance currency stability by limiting variations between the major European currencies to within 2.25 per cent.
day. The primary purpose was to curb the rate of increase in the money supply and so damp down inflationary pressures. The fact that the higher rate would help to remedy the weakness of sterling was a secondary consideration – almost an afterthought.\textsuperscript{130}

As the Bank explained in the September 1972 \textit{Quarterly Bulletin}: ‘The move was seen as consistent with the official monetary policy objective of restraining the growth in the money stock – which was currently very rapid – to a rate which was adequate, but not excessive, to finance the 5\% annual rate of expansion in real output expected at the time of the Budget’.\textsuperscript{131}

Theory suggests that floating the pound should have marked a fundamental change in the operation of monetary policy. In truth, little changed. Barber had effectively pre-announced the float in his March Budget, the Treasury had drawn up contingencies, and the Governor was not obliged to interrupt his summer holiday.\textsuperscript{132}

In any event, the Bank would continue to intervene in the currency markets for another five years. This was not a ‘clean’ float. Nonetheless, six months after the realignment of currencies in December 1971, and just two months after the birth of the currency snake, international cooperation was not yet dead. In June 1972, the leading central banks spent $2.6 billion defending the pound. As sterling sank, the Bank had to compensate its international partners for their losses. Having announced with much fanfare that the previous Labour government’s debts to the IMF had been

\textsuperscript{130} The collapse of the Bretton Woods system, Treasury historical memorandum no. 30, TNA, T267/36, p. 55.
\textsuperscript{131} BEQB, 12, 1972, p. 315.
\textsuperscript{132} Capie, Bank of England, p. 711.
settled in April 1972, the Conservatives now drew $630 million from the Fund to repay the central banks.\(^{133}\)

Despite the outflow of capital, early indications showed record monthly M3 growth of 3.5 per cent in June 1972. Barber was advised that with the pound now floating, ‘the importance of the external confidence factor in the new situation adds weight to the already strong domestic arguments for holding down the expansion of money supply during 1972/73 to a maximum of 20%’.\(^{134}\) Once again, political considerations prevailed. The government’s strategy of tackling wage inflation by pressing down on successive public sector pay settlements was in disarray after the miners were awarded a 30 per cent pay rise. Having ruled out a statutory incomes policy in its 1970 manifesto, the government spent much of 1972 engaged in ‘tripartite’ talks with the TUC and CBI. Negotiations were at a delicate stage, with a national strike planned for 26 July. Higher debt servicing and mortgage charges would make agreement on prices and incomes controls harder. As the President of the CBI pointed out, ‘the recently announced further increase in bank base rates to 7% will damage the prospects of agreement on a package to contain inflation’.\(^{135}\) The CBI had clearly not been bitten by the monetarist bug.

Nor had the Prime Minister. On 31 July, Heath ruled out higher interest rates on ‘confidence’ grounds while expressing ‘the hope that the fullest attention was being given to the money supply problem and to action that might help it, without involving an increase in Bank Rate’.\(^{136}\) Heath’s refusal to raise Bank Rate was not the only monetary problem experienced in the summer of 1972. By July, the Bank was


\(^{134}\) Hawtin, ‘Monetary policy’, 11 July 1972, TNA, T326/1564.


\(^{136}\) Downey, ‘Monetary policy’, 17 August 1972, TNA, T326/1564; ‘Note of the Governor’s conversation with Sir Douglas Allen’, 4 August 1972, BOE, 7A139/4.
reporting ‘considerable problems with the equation used to predict the demand-for-money by persons’. The re-worked equations indicated that M3 growth, 7.75 per cent in the three months since the Budget, should be restricted to 17 per cent for the year. That would mean even tighter monetary policy. The Bank and Treasury were having problems enough keeping Heath to a mis-specified 20 per cent target. By that stage, the Treasury had so little confidence in the Bank’s equations that the forecasters reverted to interest rate rather than money supply assumptions for the summer forecasting round.

At the August money supply meeting, Fforde described annualised M3 growth of 25 per cent as ‘alarming’. But, with higher interest rates ruled out, the Treasury seized upon his suggestion of a call for special deposits, the second leg of CCC. The Treasury had initially hoped that, faced with a call for special deposits, the banks would trim their loan books. In practice, they simply sold down second-line reserves, such as gilts, to meet the cash call. In August 1972, the gilt market was still in fragile condition after the June currency crisis. A call for special deposits might simply generate further selling, forcing market rates further above Bank Rate. This would exacerbate another problem. Bank Rate was the ‘penalty rate’ at which the Bank injected liquidity into the market via the Discount Houses. But if the penalty rate was below wholesale rates, the market could borrow from the Bank and immediately invest in, for instance, certificates of deposit, to earn an arbitrage profit. Until the Bank could develop a workable alternative to Bank Rate, further calls for special deposits were ruled out.

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138 ibid.
139 ibid.
140 ‘Monthly meeting on monetary policy’, 18 August 1972, TNA, T326/1564.
Bank Rate was finally replaced with the more flexible Minimum Lending Rate (MLR) in October 1972. MLR tied the Bank’s discount rate to Treasury Bill rates prevailing in the market, by taking the rate at the previous weekly tender, adding 50 basis points and rounding up to the nearest 25 basis points. It was hoped that changes in MLR would have a smaller ‘announcement effect’ than changes in Bank Rate, allowing for greater flexibility. As the Chief Cashier explained, ‘we adopted the Minimum Lending Rate technique basically because it was better than having Bank Rate completely frozen by Ministers, not because we thought it was technically a superior arrangement’.  

Finally, more than a year after CCC was launched, it appeared that the Bank had achieved the interest rate flexibility that the policy required. On 11 October 1972, the Chancellor was advised that ‘the Bank’s current view is that if the provisional estimate of a 2\% increase in money supply in banking September is confirmed, a call of 1% should be recommended’. Once again, politics intervened. Talks with the TUC and CBI were continuing, and while officials were attempting to deal with inflation by tightening monetary policy with calls for special deposits, the government was edging toward a statutory prices and incomes policy. The situation was summarised by the Treasury’s Gordon Downey: ‘a favourable outcome from the Chequers talks could lead to big sales of gilts: on the other hand, if it implies a much lower rate of inflation, our target for money supply will need to be well below 20%’. 

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142 Downey, ‘Special deposits’, 11 October 1972, TNA, T326/1565.
Downey’s own calculations pointed to an M3 target for 1973/74 of 12.5 per cent.\textsuperscript{144} Given that ‘the equations themselves have been unable to cope with the recent structural changes in the money supply’, Treasury officials were still against publishing a target.\textsuperscript{145} However, their ministers were becoming increasingly enthusiastic. On 6 November, Heath announced a new prices and incomes policy, commencing with a 90-day freeze. The next day, Financial Secretary Terence Higgins wrote to the Chancellor:

we should try and restrict the growth in the money supply during the 90 day period to the 5% growth target. I am more doubtful if we should announce this. We have not previously given quantitative targets which can be seen to be missed and it might be interpreted (quite wrongly) as conversion to the Powell heresy. There may however be advantages in giving a qualitative indication of our intentions.\textsuperscript{146}

To accommodate the ongoing 5 per cent GDP growth target, the Bank now estimated that M3 would need to increase by 13 per cent in the year ahead, a long way from the 20 per cent estimated in March.\textsuperscript{147} Cassell suggested ‘the target might better be set as a range with 13% towards the upper end’, while at the monthly money supply meeting, Bank and Treasury officials discussed a target range of 10-15 per cent.\textsuperscript{148} The Minister of State, John Nott, was only persuaded against publishing this target range because it would look high compared to the Europeans, who had agreed

\textsuperscript{144} Downey, ‘Monetary policy in the light of the Chequers proposals’, 29 September 1972, TNA, T326/1565.
\textsuperscript{145} ibid.
\textsuperscript{146} The ‘Powell heresy’ referred to Enoch Powell’s enthusiastic monetarism, Higgins, ‘Control of the money supply’, 7 November 1972, TNA, T326/15686.
\textsuperscript{147} Cassell, ‘Group on monetary policy’, 17 November 1972, TNA, T326/1566.
\textsuperscript{148} ibid; Hawtin, ‘Monthly meeting on monetary policy’, 23 November 1972, TNA, T326/1566.
to limit monetary growth to 6 per cent, albeit on a narrower measure than M3.\textsuperscript{149}

There was also pressure from the small group of Conservative backbenchers who \textit{had} been bitten by the monetarist bug. Sir Douglas Allen pointed to:

\begin{quote}
    a change in the political stance on monetary policy, which was associated with growing criticism from back bench Conservative MPs. One result of this might be more discussion of the possibility of reverting to a quantitative policy. The attitude of the EEC to monetary policy was also likely to be an increasing influence on Ministers.\textsuperscript{150}
\end{quote}

The December 1972 forecast suggested that M3 would increase by 18 per cent in 1973/74, versus the unpublished target of ‘not more than 15%’.\textsuperscript{151} Barber played to Heath’s pro-European instincts to press for an ‘over-call’ of special deposits:

\begin{quote}
    in the absence of further restraining action money supply is likely to grow at a rate which would carry considerable dangers for the economy and for sterling – and which would expose us to increasing criticism from our European partners, many of whom have already taken resolute action to slow down the growth of money supply.\textsuperscript{152}
\end{quote}

Heath agreed to the largest (2 per cent) special deposit call to date. It quickly became apparent that the authorities had overdone this call, as bank reserves again fell below the statutory minimum in early 1973. A swift re-release of special deposits would be politically embarrassing. The Government Broker explained: ‘the obvious remedy is

\begin{footnotes}
\textsuperscript{149} ‘Haig to Bailey’, 22 January 1973, TNA, T233/2505.
\textsuperscript{150} Hawtin, ‘Monthly meeting on monetary policy’, 23 November 1972, TNA, T326/1566.
\textsuperscript{151} Cassell, ‘The options’, 14 December 1972, TNA, T326/1567.
\textsuperscript{152} ‘Barber to Heath’, 19 December 1972, TNA, T326/1567.
\end{footnotes}
to pay back sufficient of the Special Deposits to set the position right and apologise for having made a mistake. However, the powers that be, particularly the political ones, will not hear of it and once again [Fforde] says they are being run by politics against their better judgement'. Just as the interest rate weapon was blunted by political concerns during 1972, so the authorities were constrained in their ability to manipulate bank reserves through more flexible use of special deposits in 1973.

Nor was there much help from the third main monetary policy instrument – sales of gilt-edged to the non-bank private sector – where the Bank consistently missed its forecasts. Even allowing for Heath’s unwillingness to let the Bank use the interest rate weapon to ‘signal’ to gilt investors when they should start buying again, it was clear that some officials had never bought into the ‘Duke of York’ strategy. In February 1973, the Chief Cashier, John Page, doubted whether ‘there is a rate of interest determinable by the authorities in abstraction from the behaviour of the market at which investors will buy gilt-edged in large quantities’. Page felt that substantial sales would come only after a successful conclusion to the tripartite talks on prices and incomes with the TUC and CBI. And any attempt to force gilts onto a reluctant market would mean higher yields, which the Prime Minister continued to rule out.

The issue came into sharper focus as the 1973 Budget approached. Barber restated his 5 per cent real GDP growth target. This would mean an even higher deficit in the year ahead. As Downey explained to the Chancellor, ‘with a public sector borrowing requirement of, say, £4,350 million in 1973-74, and a target growth of money supply (M3) of not more than 15%, it seemed likely that sales of public

sector debt to the non-banks would need to be of the order of £3,000 million. This is a formidable objective”.

By this stage, junior Treasury ministers were pressing for the M3 target to be published. Financial Secretary Terence Higgins wrote: ‘We are obviously going to have a frightful presentational problem when the size of the borrowing requirement becomes apparent. I have never been in favour of public as against internal targets but it is arguable that one is necessary in this case’. Treasury officials were more cautious. Downey noted that:

We are under increasing pressure to follow our European partners in setting targets for money supply, and it is doubtful whether we can for long avoid disclosing a target figure to the EEC (which might quickly become public knowledge). For our own purposes we might take as a target for 1973-74 a growth of money supply (M3) of not more than 15%. This worried the Bank. In February 1973, Fforde warned that ‘Ministers and officials of HM Treasury might feel compelled to announce a money supply target for the forthcoming financial year. But from the experience of last year any such commitment would be fraught with danger’.

When dealing with the Treasury, Fforde was now careful to refer to M3 as an indicator rather than a target. Within the Bank, he was more emotive: ‘if you are not sure where you ought to be going, and are guided by an unreliable map, you are inclined to feel lost’. As he explained:

M3 has been officially acknowledged as important and has grown far more rapidly than might normally be thought desirable. So it has attracted great attention and is thought, not without some reason, to have provoked the authorities into a high-key policy that encouraged the recent rise in nominal interest rates to yet higher historical highs.\footnote{ibid.}

The first \textit{public} admission that all was not well came in an often-misinterpreted speech by the Deputy Governor, Jasper Hollom, in April 1973. In private, Fforde was lamenting that ‘the defects of M3 as a simple aim have become manifest’.\footnote{ibid.} In public, Hollom was more circumspect: ‘relationships that appeared to be established in the past have not held good more recently’.\footnote{‘Does the money supply really matter?’ \textit{BEQB}, 13, 1973, p. 196.} Sir Douglas Wass naturally cites this speech as ‘a statement of the Bank’s attitude to the money supply at the time’.\footnote{D.W.G. Wass, \textit{Decline to fall: the making of British macro-economic policy and the 1976 IMF crisis} (Oxford, 2008), p. 64.} However, to suggest that the speech was representative of a continuing Radclifffian scepticism towards the monetary aggregates, as Capie does, is to miss the significance of the first eighteen months of CCC.\footnote{Capie, \textit{Bank of England}, p. 508.} As Wass points out, ‘CCC had by then been killed by the hostility ministers showed to any suggestion that short-term interest rates should be increased to meet the monetary targets they had earlier been persuaded to accept’.\footnote{Private correspondence with Sir Douglas Wass, 16 April 2012.}

Hollom’s speech coincided with the completion of a Bank review of CCC, ordered by Heath after the 1973 Budget. The Bank highlighted a number of technical problems. The money supply, released from quantitative controls under CCC, had
immediately departed from the estimates. This was partly because of ‘reintermediation’. Lending that had been pushed out to the ‘fringe’ banks by quantitative controls on the clearing banks before September 1971 returned to be counted in the statistics. In principle, the Bank welcomed this. Helping the clearers to win back market share at the expense of the fringe was one of the drivers of CCC. However, it was impossible to calculate precisely how much M3 growth was simply reintermediation. This created a statistical fog, which made it difficult to operate monetary policy predicated on precise targets. There was also the problem of the ‘merry-go-round’. As long as wholesale interest rates remained above Bank Rate, it was possible to arbitrage the system by drawing down overdrafts at pre-agreed (lower) rates, and placing the money in the wholesale market at current (higher) rates. Finally, there was the ‘CD tax loophole’. Tax was only paid on the proceeds from certificates of deposit if they were held to maturity. But after the 1972 Budget, the interest cost of financing the certificates was tax-deductible. Therefore, a top-rate UK taxpayer paying a marginal rate of 90 per cent could borrow £100,000 at 12 per cent, invest in a certificate of deposit yielding 2 per cent less, and sell it one day before maturity to net an almost risk-free £8,776. Given the rudimentary state of banking statistics, it was difficult for the authorities to calculate how much M3 growth was due to ‘reintermediation’, how much was generated by the ‘merry-go-round’ and how much was created by tax loopholes.

But the main problem was the Prime Minister. Having been mis-sold CCC on its supposed competitive merits, Heath had failed to grasp the implications for interest rates. In July 1972, he ‘repeated his inability to understand the new system’ saying
that he ‘distrusted the argument that higher interest rates would help us’.\textsuperscript{166} Heath was still complaining in May 1973: ‘I am repeatedly hearing that interest rates at present levels are inhibiting the growth of investment, and that we are paying more for Government borrowing than we need. And the recent action of the authorities in actually pushing short-term rates up seems incomprehensible to a great many people’.\textsuperscript{167} He may, unwittingly, have hit upon an important point. The unprecedented nominal interest rates of 1979-80 under his Conservative successor would do little to rein in £M3 growth, and likely accelerated it by increasing distressed borrowing.

Officials toned down their political criticism when submitting the CCC review to ministers in May 1973. Nonetheless, Sir Douglas Allen pointed out that ‘interest rates must remain a cardinal feature of any system as long as control over the growth of the money supply remains an important objective of policy – and the arguments against abandoning such an objective are, in our view, conclusive’.\textsuperscript{168} Despite this advice, ministers remained reluctant to raise rates partly because of the impact that might have on the voting intentions of mortgage payers - ‘the most carefully cultivated political lobby in the UK’.\textsuperscript{169} Higher MLR might take mortgage rates above the politically sensitive ten-per cent level. Also, mortgage costs were included in the Retail Prices Index, so higher rates would translate directly into higher headline inflation. With another round of prices and incomes to negotiate, this would be politically undesirable.

In July 1973, these domestic considerations were overtaken by the final collapse of Bretton Woods. As other countries raised interest rates to defend their now-

\textsuperscript{166} ‘Note of the Governor’s conversation with Sir Alan Neale’, 25 August 1972, BOE, 7A139/4.
\textsuperscript{167} ‘Heath to Chancellor of the Exchequer’, 3 May 1973, TNA, T233/2509.
\textsuperscript{168} Allen, ‘Competition and credit control’, 10 May 1973, TNA, T233/2509.
floating currencies, lower British rates made the pound a less attractive proposition. As Cassell pointed out:

Surely the time has come when somebody must ask what constitutes the bigger threat to the counter-inflation policy: a further rise of ½% in the mortgage rate (which would still leave it barely a positive rate of interest), or a further fall in the exchange rate because of the adverse interest rate differentials with international money markets.¹⁷⁰

Heath was more receptive to arguments involving sterling, and since unchanged interest rates now meant a lower pound and higher inflation, he agreed to raise MLR. Technically, MLR was now market-driven, so the mechanism was to call additional special deposits and let the market take rates higher as the banks sold assets to raise the cash.

On 19 July 1973, the Bank called another 1 per cent of special deposits. This pushed MLR up to 9 per cent. It did little to help sterling, which fell to a new low against the trade-weighted index. The problem was exacerbated by the weak US dollar and the strong Deutschmark, as the Bundesbank’s brief experiment with monetary base control saw overnight rates in Germany approach 40 per cent. On 27 July, the Bank allowed the market to take MLR to 11.5 per cent. This was about as far as ministers were prepared to go. Control of the money supply would require alternative solutions: ‘The Chancellor asked that some contingency work should be done on a package to be available if it became clear that the methods of controlling the money supply envisaged in "competition and credit control" were no longer

effective without raising interest rates to a quite unacceptable level'.  

When the July money supply figures showed M3 growing at an annualised 23 per cent, versus the 15 per cent envisaged at the time of the Budget, officials had to look beyond MLR.

In November, Barber wrote to the Governor:

I frankly do not believe that we can continue as at present to rely so exclusively on interest rate changes at a time when the level of bank advances seems to be very insensitive to interest rates. I therefore think it is a matter of urgency that we should bring to the Prime Minister’s attention possible approaches to this problem which would rely less exclusively on increases of interest rates to control the level of money supply.  

The prospect of renewed ceilings caused consternation within the Bank. In an echo of his ‘curious and rather emotional’ note of Christmas Eve 1970, Fforde advised the Governor that ‘the reimposition of ceiling controls would be a strategic error of monetary and economic management’. It would damage the financial system, close off channels of finance to industry, mark a retreat from ‘the spirit of competitiveness’, and represent a blow to the standing and reputation of the Bank. In any event, as Goodhart pointed out, ‘in the past it has not been possible to discern any effect whatsoever of bank lending ceilings, even the tight ones in 1967-70, on the growth of the money supply’. Nonetheless, the Bank had to come up with another way to control M3.

The solution, supplementary special deposits (the ‘corset’), involved a shift from trying to control bank assets (loans) to controlling their interest-bearing eligible

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liabilities (‘IBELs’). The idea was to put a brake on the growth of bank deposits, by restraining the banks from bidding aggressively for funds, raising interest rates, and swelling M3. The Bank explained: ‘the main reason for the choice is that banks’ liabilities have the closer relationship with M3’. Indeed, ‘the prime objective of this device is, quite simply, to contain the growth of M3. A second objective is to avoid producing any perceptible further upthrust in the general level of interest rates’.

Under the new scheme, the banks were required to deposit non interest-bearing cash at the Bank as their interest-bearing deposits grew above pre-agreed limits. Officials were aware that this would simply divert lending back to less-regulated markets, artificially reducing the monetary statistics. As the Bank pointed out, ‘the basic approach is deliberately to bring about a measure of disintermediation of the banks ... Such a development would plainly run completely counter to the objective, embodied in Competition and Credit Control, of increasing efficiency in the provision of finance’. December 1973 also marked the retirement of the interest rate weapon. As the MPG noted, the corset ‘freed interest rates from responsibility for controlling the growth of money supply’. Britain’s first money supply experiment was over.

There remained the thorny question of where to set the quantitative target. Given that the primary purpose of the corset was to control M3, the Bank initially suggested ‘the rate of growth desired in M3 might simply be adopted as the rate of growth in the target for interest-bearing liabilities’. As such, the clearing banks were asked to consider a flat 20 per cent supplementary special deposit on any growth

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176 ibid.
177 ibid.
in IBELs above 12 per cent.\(^{180}\) The banks argued that a minimum 17 per cent threshold was required to ensure that there was no dislocation to the economy.\(^{181}\) Both sides settled for a six-month formula, based on the following sliding scale:

[INSERT TABLE 1 HERE]

Barber unveiled the corset during his December 1973 mini-Budget. At that stage the British economy was in a mess. Having grown at an unsustainable 7.4 per cent in 1973, the economy was about to enter its deepest recession since the 1930s. Inflation was back above 10 per cent, and with wages indexed to inflation under Stage Three of Heath’s incomes policy, it would get worse before it got better. The current account was in substantial deficit even before the impact of higher oil prices. And with the miners on an overtime ban, Heath announced that Britain would begin 1974 with another three-day week.

Usually, economic difficulties on this scale meant a call to the IMF. This time even the Fund could not help. In January 1974, with the current account deficit for 1974/75 estimated at £2.4 billion (3 per cent of GDP), Barber broached the subject of a loan with the Fund.\(^{182}\) The IMF was keen to carve out a new role for itself in a world of floating currencies, and was formulating plans to recycle the oil producers’ newfound surpluses. But the Fund’s European Director admitted to being ‘very perplexed’ as to how, under present circumstances, the British government might bring the negotiations to a successful conclusion.\(^{183}\) The government had already drawn most of its low conditionality IMF tranche when sterling was ejected from the European currency snake in 1972. A further loan would have to be drawn from the higher conditionality ‘credit tranches’. This would mean strict quantitative targets.

\(^{180}\) ‘Record of a meeting between the Governors and the Chairmen and CEOs of the Clearing Banks’, 14 December 1973, BOE, 6A50/12.

\(^{181}\) ibid.


Failure to secure an IMF loan would be worse for confidence than not applying in the first place. The application was dropped.\footnote{Walsh, ‘Possible IMF standby’, 30 January 1974, TNA, T233/2950.} A week later, Heath called a General Election.

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CCC was predicated on the Bank’s ability to forecast the demand-for-money with some precision, its capacity to control monetary growth with the interest rate weapon, and on the continuation of a stable and predictable relationship between M3 and nominal incomes. None of these conditions survived the monetary upheavals of 1972-73. But there was a deeper flaw. Because CCC was an omnibus solution to several different problems, different members of the ‘macroeconomic executive’ had different conceptions of what it was for, and how it worked. For John Fforde, it was primarily a means of getting rid of ceiling controls. For some younger Bank officials, it was an extension of their work within the Money Supply Group. For the Treasury, initially at least, it was about more frequent use of special deposits to manage aggregate demand. For the Conservative government it was about injecting more competition into the banking system. Because of Heath’s hostility towards anything that hinted at monetarism, the Bank had to sell the proposal on its ‘competitive’ merits. The fact that different strands of the policy appealed to different members of the macroeconomic executive was essential to its adoption in 1971. But it meant that when the policy came to be tested, it was found wanting.

Different institutions drew different conclusions from the failure of CCC. The Bank decided that M3 was a ‘decidedly defective’ measure and began a long
campaign to shift the emphasis to the narrower monetary aggregate, M1.\textsuperscript{185} The Treasury had always been sceptical of the Bank’s ability to forecast and control the money supply. Nonetheless, both institutions successfully pressed a published M3 target onto the Labour Chancellor, Denis Healey, in July 1976. This was in a very different context to the unpublished objective pressed upon his Conservative predecessor four years earlier. By 1976, the PSBR had overtaken bank lending as the largest counterpart of M3, and the Bank saw a published target as ‘a tighter rope round the Chancellor’s neck’ on the spending ambitions of the Labour government – fiscal policy via the monetary policy back door.\textsuperscript{186} A reluctant Permanent Secretary acquiesced primarily because of the confidence effects the target might have on troubled financial markets.\textsuperscript{187}

Conservative policymakers drew different conclusions from the experience of 1971-73. After Mrs Thatcher’s leadership victory in 1975, Conservative economic planning was increasingly dominated by a coterie of ‘believing monetarists’, apparently unaware of the importance attached to the money supply under CCC, and convinced that ‘monetary policy neglect’ was the primary cause of the subsequent inflation.\textsuperscript{188} The result was an ‘accidental’ recession in the early 1980s that required the monetary policy u-turn of the 1981 Budget when the Chancellor, Sir Geoffrey Howe, lowered interest rates, despite the money supply overshooting his published target, while raising taxes.\textsuperscript{189}

\textsuperscript{186} McMahon, ‘Monetary policy’, 26 September 1975, BOE, EID4/200.
\textsuperscript{187} Wass, \textit{Decline to fall}, p. 212.
\textsuperscript{188} Former Bank Director William Allen points out: ‘the events of 1971-75 appear to have been unique: there is no other episode in UK monetary history in the last century in which broad money gives so accurate a prediction of future inflation’, W.A. Allen, ‘Recent developments in monetary control in the United Kingdom’, in L.H. Meyer (ed.), \textit{Improving money stock control: problems, solutions, and consequences} (Boston MA., 1983), p. 104.
\textsuperscript{189} Hoskyns, \textit{Just in time}, p. 391.
Reflecting on the early-1980’s money supply experiment, Nigel Lawson, quotes Robert Burns: ‘The best-laid schemes o' mice an' men/Gang aft agley’.\textsuperscript{190} If the Prime Minister had allowed him to explain in September 1980, John Fforde, the architect of the previous money supply experiment, would no doubt have agreed.

\textsuperscript{190} Lawson, \textit{View from No. 11}. p. 72.