6 DEC 1983

FROM: F CASSELL
6 December 1983

1. MR MIDDLETON
2. CHANCELLOR

cc - Economic Secretary
Sir T Burns
Mr Battishill
Mr Monck
Mr Lankester
Mr Odling-Smee
Mr Sedgwick
Mrs Lomax
Mr Riley
Mr Mowl
Mr Johnston
Mr Ridley

MONETARY TARGETS

This paper sets out some issues still to be resolved on the form of monetary targets for next year's MTFS - in particular what aggregates should we target. I would stress that it is concerned entirely with the form of the targets. The appropriate numbers for the target ranges can be decided later - after Chevening. But it would be very helpful if we could now agree what we want to target.

2. The paper first records the points on which I think we are all agreed (at least within the Treasury) following the discussion of the Strategy papers last summer. It then surveys what other people have said about monetary targets, and particularly about MO, after the Mansion House speech and reports what we have learned from our further research on narrow money since the papers put to you in mid-October. It also looks in more detail at the differences between MO and notes and coin, particularly in the context of operating a target for narrow money. The final section - paragraphs 20-21 sets out what look to be the main options for the next MTFS. These options might provide a framework for discussion.

WHERE WE STAND

3. I think there is general agreement among us all that:

i. In assessing monetary conditions it is necessary to look at both broad and narrow money (and other things).

ii. £M3 and PSL2 are reasonably good measures of broad money (or liquidity).

iii. M1 is not a good measure of narrow money, because of its substantial element of interest-bearing deposits.

iv. A better measure of narrow money would be provided by a M2, NIB M1, M0 or notes and coin.

v. These narrower aggregates, with the possible exception of M2, should respond unambiguously to changes in interest rates.

vi. All are in greater or less degree subject to technological or institutional change.

4. All of us here, I believe, think that some change in the form of the monetary targets is needed. In particular, we need to find better measure of narrow money than M1 and to present the targets in a more even-handed way, as between broad and narrow money (at the moment we target two broad aggregates and one narrow aggregate that has acquired some of the characteristics of broad money).

5. These considerations underlay your speech at the Mansion House, which was very much a "thinking aloud" approach towards reform of targetting in the next MTFS. Much of the monetary part of the speech was concerned with the search for a better measure of narrow money. After pointing to the deficiencies of M1, you looked briefly at M2, ("I think and hope that it will come to play an important part in policy decisions. But its time has not yet come") and then turned to narrower measures:

> "Meanwhile there is some recent evidence that other measures of narrow money - particularly measures of non-interest bearing money such as the wide monetary base, M0, and its predominant component, notes and coin with the public - have not been subject to the same distortions as M1."

A little later in the Speech you said that:

> " ... it does appear that MO could have a more important part to play as a key indicator in the growth of narrow money.
>
> Whichever indicators we choose to emphasize, it is unlikely that it would be appropriate to maintain a single range for both broad and narrow aggregates ..."

There was no commitment to targetting MO, but a clear indication that you were looking in that direction. It is this aspect that has been seized on by most of those commenting on the speech.

REACTION TO MANSION HOUSE SPEECH

6. Reaction has been mixed, with the critics (mainly from the City) more vocal than the supporters.

i. The serious press devoted a fair amount of space to explaining the thinking behind your remarks. But the brokers' worries and the December 1982 BEQB article are also widely reported.

ii. Majority opinion in the City is critical, with particularly hostile pieces from Simon and Coates, Capel-Cure Myers (Roger Bootle) and Messel's (Congdon). Hoare Govett (Paul Temperton, ex Bank author of the BEQB article on cash) and Laing and Cruikshank are tersely dismissive. The exceptions are Phillips and Drew (Bill Martin, ex CPRS), with a generally sympathetic and perceptive note, and Greenwell's, who are welcoming but worried about controlling MO "under present arrangements".

iii. There has been little serious comment outside the City, none of it very helpful. Minford has been almost silent, approving the "sensible upgrading" of MO in a single sentence. Beenstock (in 'The Times') was enthusiastic, for the wrong reasons, stressing that MO is "unique because it is directly under the authorities' control ... controllable down to the last penny ... The Chancellor has really stuck his neck out this time." The City University (Roy Batchelor), long time MBC advocates, are actually critical, arguing that MO is essentially a means of controlling broad money, and unsuitable as a target in its own right. None of the outside forecasting groups (including the new LBS Financial Outlook) have commented.

7. Parts of the general argument of the Speech have emerged almost unscathed:

i. Most commentators are prepared to accept the case for targetting narrow money as a measure of transactions balances.

ii. More contentious, but still fairly widely accepted, is the proposition that narrow money may be particularly relevant to short term interest rate decisions. Notable dissenters are Roger Bootle and Tim Congdon, who say interest rate decisions should be based on an overall assessment of "financial conditions", consistent with the Government's objectives for inflation.

iii. M1 has no defenders.

iv. Beenstock aside, the message that no move to MBC is being contemplated seems to have got across (though it has not pleased supporters of monetary base at Greenwell's and the City University).

v. MO is widely seen as the main option, but there is some recognition of alternatives. Several commentators (eg the Economist, Greenwell's, Christopher Johnson) refer to "retail" or NIB M1, with varying degrees of conviction. Most (but not all) see notes and coin and MO as synonymous.

8. Criticism of MO is based on three oft-repeated points:

i. Interest rates have little or no direct effect on it, so it will be difficult to control (other than by "controlling the economy"). Some commentators challenge the sign of the effect (apparently on statistical grounds; no-one gives a convincing economic explanation of why there should be a perverse effect). The BEQB article - very occasionally supported by a chart - is the sole basis for these assertions. Only Christopher Johnson refers to the small (0.5 per cent) semi-elasticity in the current public version of the Treasury model.

ii. MO has been, and will go on being, heavily affected by structural changes in the use of cash. The velocity trend is high and has risen unexpectedly since the late 70's. So target setting will be difficult. Again, the main source is the BEQB.

iii. The relationship with future inflation is not well established (though there may well be a link with past or current rates of inflation). This appears mainly in the most critical of the brokers, unsupported by statistical evidence other than charts. Some commentators note that the link looks closer since the mid 70's, but suggest that this is fortuitous.

9. There are two widespread misconceptions:

i. that MO would be a fourth target, additional to the existing target variables. This is taken for granted in early articles (some of which complain of a proliferation of targets). On 18 November, Sam Brittan reported that "the present intention is to replace the existing three targets by two: one for so-called "little MO" ... the other will be some measure of broad liquidity". This has been picked up by Congdon, who complains of "uncertainty about the Government's views on monetary policy":

ii. that the chief appeal of MO is as a rationale for cuts in interest rates. In the more superficial places, this is tied simply to the relatively slow growth in MO in recent "controlling the economy"). Some commentators challenge the sign of the effect (apparently on statistical grounds; no-one gives a convincing economic explanation of why there should be a perverse effect). The BEQB article - very occasionally supported by a chart - is the sole basis for these assertions. Only Christopher Johnson refers to the small (0.5 per cent) semi-elasticity in the current public version of the Treasury model.

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ii. that the chief appeal of MO is as a rationale for cuts in interest rates. In the more superficial places, this is tied simply to the relatively slow growth in MO in recent years. More sophisticated commentators argue that technical change will make it easy to underestimate future trends in MO velocity, and hence set a "soft target"; or that the lack of interest sensitivity will mean that MO is not an effective brake on interest rate cuts.

The second point, very fashionable immediately after the Mansion House Speech, is beginning to lose favour as some commentators focus on the probable target range for MO. Serious suggestions are:

For zero inflation $\dot{M}_0 = 0$ — rather $\dot{M}_0 = 5\%$ or danger signal

3-7 per cent	Minford
4-8 per cent	Greenwell's, Phillips and Drew, Christopher Johnson
5-9 per cent	Laing and Cruikshank

(The Banker notes a 6 per cent trend increase in MO velocity in recent years, but spoils it by concluding that the 7-11 per cent range set for the other aggregates would be uncomfortably tight).

Several people (eg Greenwell's, Henry Kaufman and Phillips and Drew) have argued that with current MO growth well above last year's rate and towards the top of any plausible range, targetting MO is not a soft option.

10. The brokers have not finished with this subject yet. Substantial pieces are still coming in, and at least one commentator (Peter Turner - James Capel) is known to be working on a further major offering. Judging by informal contacts, one question that we may hear more of over the coming weeks is: "If you do not intend to move to MBC, why choose monetary base?" The point has already begun to surface: the Economist noted that operational balances are not included in any other monetary aggregate, and Capel-Cure Myers suggest that MO is a surprising choice if there is no intention to move the MBC. The point of the CUBS article is, of course, to argue that targetting MO makes no sense without a move to MBC. No-one yet appears to have concluded that notes and coin would be a preferable option to MO:

the focus has rather been on highlighting those objections to MO that are common to notes and coin (and readily culled from the BEQB article on cash).

FURTHER RESEARCH ON NARROW MONEY

11. We reported to you in the middle of October on our research on narrow money*. Since then we have continued to examine the demand for notes and coin and for MO and begun the preparation of a Working Paper reporting this research.

12. This further work has been based on an agreed statistical series for MO - which corrects some mistakes in the Bank's old series that came to light as our research proceeded. We have had further discussions with the Bank, who are still sceptical about some aspects of our work. In addition we have consulted two academics - Professor Hendry of Nuffield College and Dr Bean of the LSE - who occasionally attend our academic panel. They have made some helpful suggestions. Professor Hendry has published work on M1 and is currently undertaking similar research to our own on the effects of financial innovation on the demand for money.

13. Our further work tends to confirm the assessments in the earlier note, including the conclusion that, based on their apparent demand and prediction properties, notes and coin would seem to have a slight edge over MO.

i. There appears to be small but significant interest sensitivity in the demand for both cash and MO. This issue has particularly exercised some commentators since the Mansion House speech. We have now investigated this effect on a run of monthly data that goes back to the early 1960s. This examination indicates that conclusions about interest

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* "Research into Narrow Money and its Implication for the Choice of Target Variable" submitted under my minute of 14 October 1983.

sensitivity do to a certain extent depend on the period used for estimation. While the size of the effect is reasonably constant from the early 1960s, its statistical significance varies. It has not been possible to find any significant interest sensitivity when the equations are fitted to data drawn solely from the early 1970s. There does, however, appear to be some evidence of significant interest sensitivity for notes and coin or MO in the 1960s, and, more impressively, since the mid-1970s. The Bank's economists agree with our findings insofar as they refer to recent years; there is still some disagreement on the nature and implications of the evidence in earlier periods.

ii. Our recent work confirms the importance in explaining the rising trend in the velocity of notes and coin and MO of financial innovation in the means of payments as indicated by a number of measures - such as the greater use of cheques, credit cards and cash dispensers. We have not yet decided which of these measures performs best in explaining the growth of narrow money in purely statistical terms. But whatever the final result of our research we would not want to claim that the chosen measures are doing more than proxy a process of innovation that has taken a number of forms.

Why not keep check on fiduciary issue as in 1844 Act?

iii. The later work, like the earlier, yields better results for notes and coin than for MO. Our greater ability to account for fluctuations in notes and coin compared with total MO reflects the erratic nature of the bankers' balances and, to a lesser extent, till money. Separate work to explain movements in these confirms how difficult it is to model them.

iv. We have also looked further at the high short-term volatility of MO. At least half the volatility in changes in MO appears to be due to noise in bankers' balances. During the last two years this proportion seems to have increased, while the notes and coin series seems to have become more predictable. The proportion of the noise in total cash (ie non-bank holdings of notes and coin <u>plus</u> banks' till money) that is due to fluctuations in till money is just under 30 per cent. So once bankers' balances have been excluded from MO there does not appear to be a further major reduction in volatility to be achieved by excluding till money.

While we can take some comfort from the progress of this research, it must be recognised that it cannot point to conclusive evidence. Such research, no matter how successful it may appear to be at the time, can only have a modest role in any justification of targetting a very narrow monetary aggregate. Data revisions or new econometric techniques can all too often upset previous results.

14. There will always be room for legitimate doubts about the extent to which our work "explains" the past, and still more about how far it can be used to forecast the future. It would be unwise to let any public target range for very narrow money rest on our assumptions about future financial innovation and its effect on the demand for cash. It seems best here to stick firmly to the practice of not justifying target ranges by econometrics. But it is important to have reputable published research available so that we are not vulnerable to the charge of adopting targets for monetary aggregates without having studied their past behaviour. The coming working paper will be designed to fulfil that need.

MO OR NOTES OR COIN?

15. The research we have carried out gives notes and coin an edge over MO: the statistical series is less noisy, the demand equations are better specified and have lower standard errors. As against that, MO sounds more like a serious monetary aggregate - it is an "M" - with a good pedigree in monetary theory. Targetting notes and coin sounds primitive. However, MO has some distinctly unattractive features:-

i. It consists as to 90 per cent of notes and coin in circulation outside the banks and a further 8 per cent is notes and coin held in bank tills. So it is not containing much additional information to notes and coin themselves.

ii. Its non-currency component - bankers' operational balances at the Bank of England - though only small is subject to what look to be sharply erratic movements, which generate a high level of variability in the series. It would be possible, however, to smoothe this by averaging the daily figures for these balances over the banking month. Our experiments with such averaging suggests that it produces a much more stable series (see chart). This, of course, would mean adopting a different means of measuring MO from that used in the past.

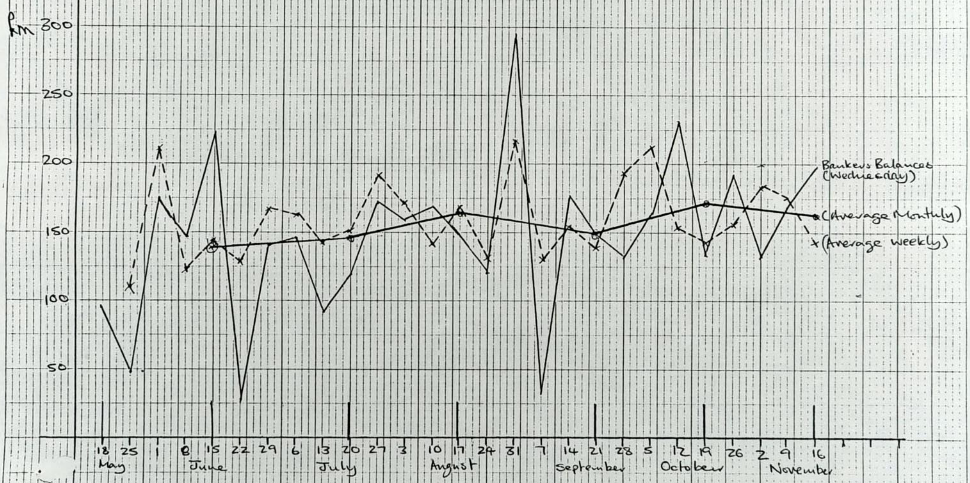
iii. This non-currency component is not part of any monetary aggregate and is of economic significance <u>only</u> if the banks are being controlled by operating on their monetary base.

iv. MO consists entirely of the liabilities of the monetary authorities. This indeed is its great virtue if one is operating a system of monetary base control. But it is not easy to explain why we are choosing this aggregate to target if it is intended <u>not</u> to introduce MBC.

In short, as an indicator it is hard to see what additional information MO contains that is not already contained in the movement of notes and coin. As a target it does not fit cleanly into the hierarchy of Ms and it would have connotations about particular techniques of credit control that could confuse markets about our longer term intentions.

16. In operating a target for MO, or any other aggregate, a key question would be how the markets might react if it moved outside the set range. We would certainly like them to regard a target for MO as no more binding than the targets we have operated for £M3. In that case, they, and we, would tolerate movements

BANKERS' OPERATIONAL BALANCES

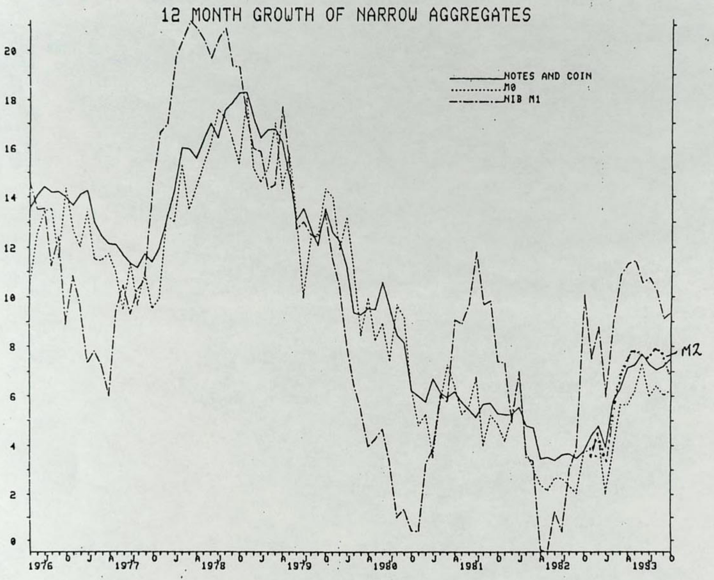


outside the target range if other indicators suggested that monetary conditions in general were consistent with our medium-term objectives for inflation, etc. They might not, however, see it quite that way. The counterparts to MO are much narrower than the counterparts to broad money. £M3 is a joint product of activities by the public sector and activities by the banks. For this reason, it is generally recognised that its movements are partly outside our control. MO, by contrast, is entirely the product of central Government and Bank of England operations. In choosing to target it we would appear (as some commentators have noted) to be going for something that is more directly within our control. Its movements would be closely watched in the City and deviations from the target path would probably generate interest rate expectations more quickly than would deviations in £M3. In time, of course, the market would come to learn that we did not take the target for MO any more seriously than we took a target for £M3. But the learning process could be a fairly confused period. Notes and coin by contrast would be much more readily seen by markets as something we were using as an indicator.

17. However, the choice of narrow aggregate is not simply between MO and notes and coin. The accompanying chart shows the movements in four narrow aggregates: M2, NIB M1, MO and notes and coin. Certain characteristics of each of these stand out clearly:-

> The wide swings in NIBMI: it would be difficult to set a target range that included this and any other narrow aggregate.
>
> The smoother path of notes and coin, as compared with MO. The closeness of the movements of M2 to those of notes and coin and MO.

This last feature is encouraging. Unfortunately, we have only a short period to go on, but on the record so far it would seem possible to embrace MO, M1 and M2 in one target range (possibly with an interest rate rider for M2).


12 MONTH GROWTH OF NARROW AGGREGATES
NOTES AND COIN
M0
NIB M1
M2
20
18
16
14
12
10
8
6
4
2
0
1976
1977
1978
1979
1980
1981
1982
1983

BROAD MONEY

18. Most of this paper has been concerned with narrow money - because that is where the present targets seem most in need of reformulation. However, there is one point about broad money to be stressed. The recent strong growth of building society deposits and advances, and the increasing likenesses between building societies and banks, would make it unwise to do anything that might suggest we were taking less interest in the activities of building societies.

19. This argues for making the definition of broad money very broad (and also for giving greater emphasis in our funding operations to debt sales outside both the banks and the building societies). If we wished to target only one broad aggregate, PSL2 might now be preferable to £M3. However, to cease targetting £M3 would look like a radical change. This argues for a definition of broad money that includes both £M3 and PSL2.

THE OPTIONS FOR 1984

20. For the reasons given at the beginning of this paper, there are strong grounds for wanting to change the form of the monetary targets. We would presumably not want more than two target ranges - one for broad money, the other, and lower, one for narrow money - and we would like them to have equal status. We would also want to stress that in assessing monetary conditions we took account of all the aggregates (whether explicitly targetted or not) and other indicators as well.

21. The options set out below are essentially about how the target ranges are labelled - whether they are defined in terms of specific aggregates, or simply as "broad" and "narrow" money. If the former, it is important that each range contains the same number of aggregates - to convey equal status. There are numerous permutations possible among the various aggregates. To keep the options to a manageable number, we exclude here any containing M1 (because that aggregate does not now fit easily into either broad or narrow money) - this rejects, therefore, the

combination that most commentators seem to think was suggested at the Mansion House: the existing three targets plus MO. The main remaining options seem to be:-

Two aggregates: Option 1: £M3 (or PSL2) and MO (or notes and coin, NC). Clearcut; even-handed between broad and narrow. But hard to justify ditching target for PSL2 (or £M3); and MO and NC, both have some unattractive features for targetting.

Option 2: £M3 or (PSL2) and NIB M1 (or M2). Replacing M1 by NIB M1, or M2, would get rid of the most glaring deficiency of the present targets. But NIB M1 is highly interest-sensitive (which would complicate the setting of a target range for it), and M2 is still something of an unknown quantity (and not seasonally adjusted). Again, with only one broad and one narrow targetted aggregate the difficulty of justifying the ditching of PSL2 or £M3 would arise.

Four aggregates: Option 3: £M3, PSL2, NIB M1 and MO (or NC). Keeps both broad aggregates. But the swings in NIB M1 are so great that it is difficult to find a range that would both embrace it and another narrow aggregate.

Option 4: £M3, PSL2, MO and NC. Though this includes two broad and two narrow, doubtful if this would be seen as even-handed as between broad and narrow money, given overlap between MO and NC. This grouping would presumably be considered only if we were using the existing "snapshot" measure of MO. It would give the opportunity to stress that we recognized that while MO provided a good measure of narrow money over longer periods it was subject to considerable volatility in the short-term and for shorter periods we would accordingly give more weight to the movement in NC.

Option 5: £M3, PSL2, M2 and MO (or NC). This grouping has attractions because it includes a wide range of aggregates; but it also has risks, given our limited knowledge of M2.

"Broad" and "narrow" money: Option 6: "Broad money" and "narrow money". Unlike the others, this option would not set target ranges in terms of specified aggregates but one for broad money (which would be said to include £M3 and PSL2) and another for narrow money (which would be said to include M2, MO and notes and coin). This is less clearcut than the other options, but it avoids many of their disadvantages, and leaves the way open for future evolution - perhaps to a more prominent role for M2.

F CASSELL

CONFIDENTIAL

DC

From: P E MIDDLETON
Date: 7 December 1983

CHANCELLOR

cc Economic Secretary
Sir T Burns
Mr Cassell
Mr Battishill
Mr Monck
Mr Lankester
Mr Odling-Smee
Mr P Sedgwick
Mrs Lomax
Mr Riley
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Mr Johnston
Mr Ridley

MONETARY TARGETS

Mr Cassell's paper below is the one I promised you to enable us to have an early discussion about the options. There is a comprehensive list of permutations in the final paragraph of his minute.

2. In putting this forward, I have two comments - one on substance, one on procedure.

3. My slight quarrel with the substance of Mr Cassell's remarks arises on his para 16. I do not believe that if the Government said that it was targeting Mo but asserted that the authorities were going to run the monetary system in the same way as in the past, there would be the period of confusion to which Mr Cassell refers. Furthermore, I do not think that the possibility that such a target might be seen as a step along the road to MBC would necessarily be a bad thing. Not only is our stated policy that we are taking measures which would be consistent with an eventual move to MBC if at some stage we wanted to do it, but we might also find that the increased range of public sector debt we could sell to control Mo would be a positive advantage.

I can, however, expand on this view in discussion.

4. So far as procedure is concerned, we need an early internal discussion. The Treasury, I think, needs to produce a joint paper with the Bank so that the arguments can be set alongside each other and a formal decision taken as to what we target. Meanwhile, you might find it useful to have the internal discussion before your Select Committee appearance, though you will not wish to commit yourself to anything on that occasion. I expect that the Governor will make some anti-Mo noises when he sees you on Friday, but he is unlikely to want to get into the sort of issues raised in Mr Cassell's minute.

5. I would hope that we could have taken decisions in principle before Christmas so that we can take a more positive line in presentation, and have a good basis for preparing the Chevening papers.

P E MIDDLETON