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MR MIDDLETON

cc Sir D Wass  
Mr Ryrie  
Mr Britton  
Mr Monck  
Mr Turnbull (o/r)  
Mr H Davies  
Mr Grice ✓

MONETARY BASE CONTROL AND THE NEW ARRANGEMENTS

Following the Chancellor's meeting, I have revised my paper on monetary base control. The changes are mainly cosmetic. I have toned it down quite a lot, and removed some of the more provocative references to the authorities wavering commitment to £M3. I think it is now nearly in a state where we could show it to Number 10 if the need arose, without stirring up too much trouble. I have also taken in some minor comments from the Bank; they were generally more than content with the original draft (not surprisingly!)

*R*  
RACHEL LOMAX  
17 July 1981

Encl.

# MONETARY BASE CONTROL AND THE NEW ARRANGEMENTS

## Introduction

The papers prepared for the PM's Seminar last autumn identified a number of problems with the system of monetary control, as it then was. Since then, a number of innovations have been announced which have been publicly justified both as "desirable in their own right" and as contributing to a possible eventual move to some system of monetary base control. The paper on "The New Arrangements" describes these changes, how they will function, and what they are seeking to achieve. This paper looks at where we now stand on the question of MBC. Part 1 reviews the current state of the debate about MBC, and tries to narrow down the serious options, in the light of the internal discussions that have taken place since the Autumn. Part II discusses how far the recently announced changes in monetary control techniques are consistent with an eventual move to MBC, and how much we can expect to learn about the feasibility of such a move from the operation of the new system. The main conclusions are summarised in the final section.

## I MBC: CURRENT STATE OF THE DEBATE

### (i) Monetary base control: as a technique of control

2. The debate that followed the publication of the Green Paper was dominated by the value of monetary base control as a technique of control. In the absence of direct controls on credit, the main way in which the Bank has sought to influence monetary conditions is through its operations in short term money markets\* - ie. by supplying cash to or withdrawing cash from the banking system through open market operations, with a

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\*It also operates in other financial markets, notably the foreign exchange market and the gilt edged market. While it now uses a quantitative rule to determine its operations in foreign exchange (ie no net intervention) it has traditionally acted as a price taker in the gilt edged market, without formulating precise quantitative objectives.

safety valve, which may be used to a greater or lesser extent, in the form of discount window lending.

Traditionally, money market operations have been directed towards securing the Bank's objectives for short term interest rates. Monetary base control was seen, above all, as providing an alternative quantitative basis for these operations, according to which the Bank would focus on the amount of cash supplied rather than on its price.

3. The technical case for MBC is that it would provide a more appropriate and reliable means of controlling the targeted monetary aggregate than the alternative technique of manipulating interest rates to influence the demand (and supply) of money. Discretionary control of interest rates was said to have the following disadvantages:-

(i) if the authorities fix interest rates, errors and unexpected shocks will show up in the target variable - money. There is a risk of giving misleading signals to the market. Policy may, unwittingly, be given an inflationary bias, as inflationary shocks are accommodated and prove hard to reverse;

(ii) the authorities can only directly influence short rates but broad money depends on relative interest rates. The link between the level of short rates and broad money (and possibly other aggregates) is tenuous and poorly understood;

(iii) interest rates are too political an instrument to use flexibly (there will be a "bias to delay" at least in the case of upward movements).

4. How far is MBC an effective answer to these problems? Whether (i) is a serious problem at all depends on the nature of the shocks to which the demand for money is most frequently subject. In some cases it may be desirable to allow

the money supply to respond to unforeseen events. Failure to accommodate unexpected changes in the demand for money, relative to nominal incomes, will involve unnecessary changes in interest rates which will destabilise the real economy. On the other hand, the appropriate response to unforeseen movements in nominal incomes will typically be an offsetting movement in interest rates. Whether interest rates or the monetary base provide a better operating guide is therefore an empirical issue.

5. It is sometimes argued that choice of a money supply target establishes some presumption in favour of the base as an operational rule. It is true that similar questions arise in choosing between the monetary aggregates and interest rates as intermediate targets; and that one implication of setting money supply targets is that unpredictable shifts in velocity are, in practice less of a problem than unforeseen movements in nominal incomes. But separate issues are involved in adopting some form of MBC. Choice of a money supply target assumes only that velocity is relatively stable. Choice of MBC requires the additional assumption that the relationship between the monetary base and the money supply (the money multiplier) is fairly stable, at least compared with the link between interest rates and the demand for money. In principle, there is nothing inconsistent in opting for a money supply target, and attempting to achieve it by manipulating interest rates.

6. Nor is MBC necessarily the best answer to (ii). An alternative solution would be to target one of the narrow aggregates which has a better defined relationship with short term interest rates. Even if this is not possible, the case for MBC depends not just on the empirical weakness of the link between interest rates and the demand for money, but on the demonstrable superiority of the relationship between base money and the target money supply. In practice, however, institutional arrangements have made it impossible to judge this point in the UK.

7. Whether MBC is a solution to (iii) is more open. On the one hand, it can be argued that the mere fact that interest rates are so highly political makes it impractical to relinquish control over them, as implied by MBC. On the other hand, similar arguments apply to exchange rates, and the Government has had some success in convincing sections of opinion that; given the monetary target, the exchange rate cannot be regarded as a policy instrument and directly controlled by the authorities.

8. Before leaving techniques of control, it is worth noting another group of problems which we identified last autumn which have an indirect bearing on the case for MBC - the shortage of effective monetary policy instruments. The authorities have no direct control over long term interest rates - though whether this is self-imposed or an inevitable corollary of the Government's domination of UK long term capital markets has been hotly debated. The range of available debt instruments is limited (though it is being extended). The scale of the distortions revealed by the removal of the SSD scheme has, for the time being, seriously discredited direct controls, while the abolition of exchange controls has severely limited their potential usefulness in the future.

9. There are a number of implications for the MBC debate. First, the shortage of alternatives underlines the need to conduct money market operations as effectively as possible. Second, if MBC could increase the range of monetary policy that would be an important advantage. It is sometimes argued for example, that MBC would be a way of putting pressure on the banks to modify their behaviour in ways that would be helpful to monetary control (eg. by encouraging their customers to limit their reliance on short term borrowing, and raise more medium term finance) rather than, as at present, responding passively to the demands of their customers. Attractive as this argument is, however it has been treated with considerable scepticism by almost everyone who has ever had anything to do with practical banking - and while that is scarcely conclusive, there is no evidence to the contrary either.

10. Thirdly, the objections to direct controls extend to some forms of MBC as well. We concluded last autumn that the abolition of exchange controls made it impractical to attempt to control £M3 (or any other broad money aggregate) by mandatory MBC.\* The reasons were spelt out at length in the TCSC Report on Monetary Policy. While in principle it might be possible to use MBC to control a narrower aggregate, like M2, there would still be scope for domestic distortions and leakages from the control aggregate, especially if building society deposits were excluded from the definition of M2. The value of so doing, despite these problems, also depends, of course, on whether the narrower aggregate was thought to be sufficiently well related to final objectives to be suitable as a target.

(ii) Monetary base: as an intermediate target

11. The debate about control techniques took it for granted that the intermediate objectives of monetary policy would be defined by a target for the money supply. But subsequent discussions have ranged more widely. The unexpectedly rapid growth of £M3, at a time when other indicators were suggesting that policy was very tight, raised fundamental questions about the way in which monetary policy objectives were defined. Was £M3 a suitable target? Was it sensible to rely only on one measure of the money supply? Was it even right to define monetary policy exclusively in terms of a money supply target and ignore other indicators of monetary stance like real interest rates and the exchange rate? Monetary base control

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\*Or by a negotiable entitlements scheme.

as defined above (a rule for determining the basis on which open market operations are conducted) has a place in this wider debate, since what should be controlled turns, at least in part, on what can be controlled. But the monetary base was also considered not as a short term operating target, but as a longer term intermediate target - a proposal which does not necessarily involve radical changes in techniques of control (though it might).

12. The case for the monetary base as an intermediate target is that it is at least as well related to final objectives as other monetary aggregates, and that it has the advantage of being more directly controllable. Both propositions are debateable.\* It is only the currency component of the base that appears to be systematically related to GNP or prices: but since currency has been entirely demand determined it is difficult to see this as evidence of a causal link from the base to nominal incomes. In the short term at least, it would be surprising if the relationship between the base and nominal incomes were as good as that between broader measures of money and GNP, since (as noted in para 5 above) the base/GNP relationship will be disturbed by shifts in the money multiplier as well as by the shifts in velocity which upset the link between broad money and GNP.

13. There is reason to believe that the wide base could be more difficult to control than M1. True, there is daily information about the base. But 85% of the base consists of the public's holdings of notes and coin. The enormous disparity between the banks' holding of cash and the public's means that a simple policy of offsetting movements in one against the other would not be practical. Control of the wide base would not be different in principle from control of M1 or £M3, whether the Bank's operating rules were formulated in terms of prices or

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\*See "The Role of the Narrow Aggregates" for a summary of the evidence bearing on paras 12 and 13.



quantities. A surge in the public's demand for notes and coin would require the Bank either to squeeze the supply of cash to the banks (or equivalently, to drive up interest rates), until the banks bid notes and coin away from the non-banks (or, what amounts to the same thing, the public's demand for notes and coins is reduced to the required extent). The problem is that the relationship between the wide base and interest rates seems to be considerably weaker, less stable and more poorly determined than that between M1 and interest rates. Control of the base would probably be less certain, and require wider swings in short term interest rates, than control of M1.

(iii) Narrowing the options on MBC

14. We see severe problems with at least two versions of MBC:-

(i) MBC as a technique for controlling broad money (£M3 and the PSL's) certainly in mandatory form;

(ii) targeting the monetary base as an alternative to the money supply proper (M1 or £M3).

That leaves mandatory MBC as a means of controlling narrow measures of money; and non-mandatory control of bank holdings of cash (ie bankers' balances and, possibly, till money). Memories of the corset make all forms of mandatory MBC fairly unattractive. But the main problem is the lack of a suitable target aggregate. Disintermediation would almost certainly be a severe problem with M1. Figures for M2 will be available later this year, but it will be a matter of years before we can tell whether it will be a suitable target aggregate. For practical purposes, therefore, we can probably rule out an early move to any form of mandatory monetary base control.

15. The main problem with non-mandatory control of banks' holdings of cash is that there is no guarantee that it would lead to improved monetary control. That would depend on the stability of the money multiplier.\* While we can infer something about the money multiplier by observing the stability of the relationship between the public's holdings of notes and coins and total deposits, recent institutional arrangements mean that the banks have not had a well determined demand for bankers' balances: their demand for cash has been denominated by their precautionary holdings of till money. There is every reason to expect changes in the terms on which cash is supplied to produce changes in the nature of the bank's total demand for cash. In our present state of knowledge we are in no position to judge whether or not the money multiplier is likely to be more stable than the relationship between short term interest rates and the relevant measure of the money supply.

16. Non-mandatory MBC might also raise the question of the appropriate monetary target. The narrow base might turn out to be well related to M1 or M2, but not to £M3. But the value of such a link with narrow money would depend on the significance attached to targeting these aggregates.

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\* The money multiplier  $m$ , is defined as  $\frac{M}{B}$ , where  $M$  is broad money, and  $B$  is the monetary base. It can be expressed as:

$$(i) \quad m = \frac{1 + c}{r + c}$$

Where  $c$  is the ratio of the non-bank private sector's holdings of currency ( $C_p$ ) to total bank deposits ( $D$ ), and  $r$  is the ratio of bank holdings of base money (in the form of currency  $C_B$  and deposits at the Bank of England  $R$ ) to total deposits  $D$ .

((i) is obtained by manipulating the identities:-

$$M = C_p + D \text{ and}$$

$$B = C_p + C_B + R )$$

17. A key issue is the extent to which monetary policy objectives are defined in terms of money supply targets. MBC presupposes a fairly clear commitment to using targets for the monetary aggregates as the basis for setting interest rates. The Budget marked a re-affirmation of broad money targets as a basis for setting fiscal policy instruments: but the decision to take a wider range of factors into account in determining interest rates seemed to imply a shift in emphasis away from money supply targets as the basis for determining monetary policy instruments (ie. interest rates). There is an obvious tension between making interest rate decisions more discretionary (as is involved in widening the range of relevant criteria) and making them more endogenous to decisions about quantities (as implied by MBC).

## II RECENT CHANGES IN MONETARY CONTROL TECHNIQUES

### (i) Consistency with an eventual move to MBC

18. Whether the UK finally adopts some form of MBC and if so, when, and in what form, remains an open issue. At a technical level, many features of the new arrangements are likely to be helpful if and when we decide to adopt MBC, in the sense of a quantity based approach to money market operations:-

(a) the abolition of the reserve asset ratio. This is the most important: a primary liquidity requirement is quite incompatible with any form of MBC as it encourages the banks to treat certain short term liquid assets as very close substitutes for cash.

(b) Steps to broaden the bill markets, by widening the range of eligible bills. By improving the flexibility of the Bank's open market operations, this should make it easier to control the supply of base money in the face of large, and often unpredictable, swings in the CGBR.

(c) Reduced reliance on discount window lending. This is a necessary step if interest rates are ever to be fully market determined, given the target for the base. As long as discount window operations are a regular feature, the rate at which the Bank are prepared to lend to the market will tend to put a ceiling on short term rates.

(d) The proposal to let interest rates fluctuate within a band (2% in the first instance). This should familiarise market operators with more day to day volatility in short term interest rates and could cause them to differentiate more sharply between cash and other liquid assets. If the position of the band is changed relatively more frequently, the private sector might be prompted to make more far-reaching changes eg. to the terms on which loans are extended - though this would be more likely if there were a clear declaration of intent to move to MBC on an announced timetable. Of course unless interest rate bands are somehow related to quantitative targets (eg. for the base) they will mark a very partial move in the direction of MBC.

(e) The proposal to abolish MLR as a posted rate. This is essential if the interest rate bands are to be, as intended, unpublished, (at least so long as MLR continues to have some operational significance): and, a fortiori, if the authorities were to operate without any interest rate bands at all (in a fully fledged MBC system).

19. The proposal not to publish the interest rate bands has been attacked by several commentators as irrelevant to MBC and as creating uncertainty for its own sake. But uncertainty about interest rates is a likely

consequence of introducing MBC, though it is not the purpose of doing so. Moreover, greater uncertainty about the terms on which cash will be available may be required to give cash the special status vis-a-vis other liquid assets which is implicit in the MBC approach to monetary control. But the critics have a point. A failure to couple the announcement about unpublished interest rate bands with some statement about the new (possibly quantity based) rules by which the authorities will be operating in future could lay the Government open to the charge of gratuitously increasing uncertainty.

20. The feature of the new arrangement which is least obviously consistent with a move to MBC is the undertaking which eligible banks\* will have to give to place an average agreed level of funds with the discount houses. The objective is to ensure that the ending of the RAR does not cause a sharp decline in call money, which would undermine the discount houses ability to discharge their present role as market makers in bills. While a well functioning bill market would make it easier to move to MBC, it is not clear that the discount houses themselves would be able to survive a move to MBC (or at least some forms of MBC).

21. During the monetary control consultations, it was widely accepted, not least by the Discount Houses Association, that using MBC as a control technique would probably mean the end of the discount market in its present form. The special position of the discount houses stems from their privileged access to cash. If discount window facilities are granted less freely, and on less predictable and favourable terms, while the terms on which other assets can be turned into cash become more uncertain as the by-product of operating an MBC system, the discount houses may find it impossible to make a profit from accepting money at call. But we cannot be certain that the discount houses would fail to adapt to the changed circumstances under MBC. It appears that the Discount Houses

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\*ie. banks whose bills are eligible for discount at the Bank of England, under the new arrangements.

themselves now take a more sanguine view of their ability to survive a move towards MBC, though what has caused them to change their original assessment is less clear. The new arrangements for securing a high volume of call money are not in our view a significant obstacle to an eventual move to MBC; but arguably they are not a significant step in that direction either.

(ii) New Evidence on MBC

22. We cannot expect to deduce from the operation of the new system how well a fully fledged system of MBC would work. We will only learn that by making the switch. But, on a less ambitious plane, there are a number of things we may hope to learn in the next few years. First, we shall start collecting figures for M2. That will tell us whether there is a narrow aggregate which is suitable as the denominator of a compulsory cash ratio in a mandatory MBC system. Second, we should be able to see how responsive the banks demand for cash is to changes in the way the Bank conducts its money market operations. At present we do not know if there is likely to be a stable money multiplier at all. Even though the value of the multiplier would certainly shift as we moved closer to MBC, observation of the behaviour of the base under the new system may help us to decide whether there is likely to be a reasonable behavioural link between bank cash and deposits. The existence of such a link is important information, even if the parameters cannot be determined in advance of a full move to MBC.

23. We may also learn something about how the system responds to more flexible, and possibly more volatile, short term interest rates. That includes the effect on financial institutions - discount houses, banks, building societies - and possibly on companies. It could also include the Government. We may also be able to observe the effect on other economic variables - notably the exchange rate. Even if there is no visible response to a 2% interest band,

that will be information of a sort - at present we have very little idea what degree of interest rate volatility would provoke significant changes in economic behaviour.

24. More ambitiously, we might discover more about the significance to be attached to different monetary aggregates. The divergent behaviour of the broad and narrow aggregates in 1979 and 1980 is not entirely unprecedented, but it was very striking. It will be interesting to see whether the lessons commonly drawn from the 1972/5 period receive any confirmation. If they do, then our relative neglect of the narrow aggregates in setting monetary policy instruments may be vindicated. Since the case for MBC (in both mandatory or non-mandatory forms) depends in large part on the relevance of the narrow aggregates to monetary control, that is in many ways the most important issue to be decided before passing a final verdict on MBC.

(iii) Further Steps to MBC

25. The most important single development needed to transform the new system of control into a proper MBC regime would be for the authorities to formulate objectives for some measure of the monetary base, and to allow interest rates to respond more closely to divergences of the base from the target. That would mean both widening the bands and setting them with movements in the base in mind. Ultimately operating instructions might be couched entirely in terms of quantities (targets for the supply of cash to the banks) - rather than prices (short term interest rates). These changes would not require institutional changes in the system of monetary control, though they might provoke institutional changes in the private sector.

26. There are two possible changes to the existing framework that might be needed depending on the form of MBC adopted. The first concerns the cash ratio. Under the new arrangements, the cash ratio has no monetary control function. It could remain as it is, if we adopted non-mandatory MBC, but a mandatory system would have to be based on a new, appropriately defined cash requirement (eg. as in the illustrative scheme outlined in the papers for the autumn seminar).

The second concerns the way in which the Bank organises its <sup>interventions</sup> /in the money markets. If changes in the terms on which cash is supplied caused a sharp contraction in the discount market, the Bank would have to deal directly with the banking system. At present they see real difficulties with this, because the interbank market is dominated by the clearers, who (like the Bank) are net suppliers of cash to the rest of the system. With such a market structure, the Bank have argued, it is unrealistic to look for interest rates which are, in any meaningful sense, market determined.

27. It is not clear what the answer to this problem is, or even if it is a real problem since the discount houses might survive a move to MBC. One possible solution would be for the Bank to influence the base by operating in a short term asset market which is less dominated by the oligopolistic clearers. An obvious candidate is the foreign exchange market, since the base can be influenced by sales and purchases of foreign exchange, as well as by open market operations in bills. One immediate objection to this course is the effect on the exchange rate which, unless domestic and foreign assets are perfect substitutes, would be more affected by operations in the foreign exchange market than in the domestic short term money markets. No doubt there are other problems. But the idea might be worth exploring further, if the problems of operating in the interbank market looked like posing a major obstacle to further movement towards MBC.

### III CONCLUSIONS

28. A move to MBC is sometimes presented as the logical operational consequence of adopting money supply targets. The corollary certainly holds - the case for MBC presupposes a clear commitment to formulating monetary objectives in terms of monetary aggregates rather than prices - interest rates or exchange rates. Monetary base control has little to offer a if the authorities want a wide range of factors to have a bearing on movements on short term interest rates. There is room for discretion in operating an MBC system



of course, but if a move in that direction is to mean anything, it must mean a switch of emphasis away from interest rates, as important instruments of policy, towards quantities (some measure of the base).

29. The analogy with the foreign exchange market is illuminating. Between the extremes of pure floating and totally fixed exchange rate regimes there is a wide range of "dirty floating" options. The opposite ends of the spectrum are however clearly defined. Similarly, MBC is, in principle, at the opposite end of the spectrum from a purely discretionary interest rate regime.

30. It is not obvious what MBC could offer, as long as the authorities continue to define their monetary objectives primarily in terms of  $\text{£M3}$ . MBC is unlikely to be an effective instrument for controlling broad money. Moving to MBC would involve adopting a target for a narrow aggregate, possibly one for which we do not yet have figures. The merits of such a target would need examining in its own terms.

31. We may now be in a position to narrow down the options on MBC. Targeting the wide base has no clear advantage over targeting M1, and some disadvantages. Mandatory MBC, in any form is not an immediate option, because there is no suitable aggregate against which reserve requirements might be set. Even if there were, the risk of creating unnecessary distortions make it fairly unattractive. That leaves (non-mandatory) control over the narrow base. The only serious objection is that we cannot tell whether moving in this direction would improve monetary control or not.

32. Compared with these issues, the technical questions raised by a further move to MBC are relatively minor. As far as we can tell a move to non-mandatory MBC would not require further major change to the framework of monetary control. The main practical question is how rapidly it is sensible to move along the spectrum - from thinking in terms of interest rates, to thinking in terms of quantities. That is something which we may be better able to judge when the financial system has had a chance to digest the changes we are currently in the process of making.

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July 1981



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P E Middleton  
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6 July 1981

Professor Brian Griffiths  
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*Dear Brian,*

Thank you for your letter of 25 June.

I attach a list of statements and consultative papers issued on monetary and prudential control, as requested. The consultative documents were circulated only to banks and will not be formally published until they have been finalised. I expect however that you have copies.

I look forward to reading your next annual review.

*Yours ever,*  
*P E*  
P E MIDDLETON

Enc

## MONETARY CONTROL

Monetary Control - Consultative Paper by HM Treasury and the Bank of England  
Cmd 7858 - March 1980

Methods of Monetary Control - Background note issued by the Bank of England on 24 November 1980. Published in BEQB, December 1980

Monetary Control: Next Steps - Paper issued by the Bank on 12 March 1981. Published in the BEQB, March 1981

Monetary Control: Draft Provisions - Consultative Paper circulated to banks in June 1981

## PRUDENTIAL CONTROL

The Measurement of Liquidity - Consultative Paper circulated to banks in March 1980

The Measurement of Capital - Paper issued by the Bank of England on 5 September 1980. Published in BEQB, September 1980

The Liquidity of Banks - Paper issued by the Bank on 12 March 1981. Published in BEQB, March 1981

Foreign Currency Exposure - Paper issued by the Bank on 24 April 1981. Published in BEQB, June 1981

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Copy Mr Middleton

8 July 1981

Mrs Rachel Lomax  
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Mr Monce  
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Mr Caine  
Mr Smith

Dear Rachel

RETAIL DEPOSITS

As I mentioned to you over the telephone yesterday, progress to date on retail deposits is quite good. We have had extensive discussions with the banks about the details of the definitions and the way in which the figures are to be compiled, and general agreement has now been reached. Of course, some problems may still crop up as and when the banks actually start to put the figures together. We are aiming to start collecting figures as from mid-October, but I guess that, when it comes to the point, there may be some slippage. Nevertheless, I am reasonably hopeful that we shall have some figures to look at by the end of the year.

Yours sincerely,

Graham Kentfield.

G E A Kentfield

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