

Keynesians, Monetarists  
and Keynes:  
The end of the debate  
or a beginning?

Victoria Chick

Thames Papers in  
Political Economy



Thames Papers in Political Economy are a series of occasional papers produced by the School of Social Sciences of Thames Polytechnic, and the Department of Applied Economics, Faculty of Business of North East London Polytechnic. Their purpose is twofold: firstly, to stimulate public discussion of practical issues in political economy; and secondly, to bring to the notice of a wider audience controversial questions in economic theory.

The editor of the series is Thanos Skouras aided by Sami Daniel, Klaus Heidensohn, John Kitromilides, Gregor Koolman, and Peter Oxlade.

The School of Social Sciences is responsible for running the B.A. degree in Political Economy and the B.A. degree in Sociology. The Department of Applied Economics is responsible for running the B.Sc degree in Applied Economics. Both departments offer facilities for research in economics leading to MPhil and PhD degrees of the CNA.

## THAMES PAPERS IN POLITICAL ECONOMY

### KEYNESIANS, MONETARISTS AND KEYNES: THE END OF THE DEBATE – OR A BEGINNING?

by VICTORIA CHICK  
University College, London

SPRING 1978

Thames Polytechnic – Wellington Street  
London SE18 6PF



KEYNESIANS, MONETARISTS AND KEYNES:  
THE END OF THE DEBATE — OR A BEGINNING?<sup>1</sup>

Victoria Chick

University College London

I. INTRODUCTION

In large part, monetarists and Keynesians, in their debate on the mechanism and efficiency of monetary policy, have accepted as ground rules the same economics model, the IS—LM model due to Hicks. It has been shown<sup>2</sup> that short of restricting the parameters of that model to extreme values the debate cannot be settled on a *priori* argument alone. It was then suggested that the debate might usefully be couched in terms of the assumptions concerning adjustment rather than the static parameters, though this suggestion required persuading the monetarists to turn their attention to the early stages of the path to equilibrium. These points were made in the context of the ground rules of the debate as it then stood. Both the method — comparative static analysis and dynamic adjustment according to the correspondence principle — and a crucial assumption — that the mode of introduction of new money is a matter of indifference — were accepted for purposes of the argument.

It was indicated<sup>3</sup> that this assumption concerning monetary changes was not satisfactory. Indeed, in 1972, Friedman paved the way for considering different modes of monetary change, in a backhanded sort of way: he argued that the mode of financing fiscal policy was important, fiscal policies being more effective if accompanied by monetary changes than by changes in interest-bearing debt or tax changes. Here at least is recognition that monetary changes always entail a change in some other economic variable as a counterpart. Friedman's well-known, because colourful, assumption that money rains down on the economy from a helicopter has one supreme methodological attraction: it permits us to hold to the established method of analysing a change in only one variable at a time, *ceteris paribus*. Recognising that all monetary change involves some *other* change as well forces us to relinquish that method.

1. The author wishes to thank Charles Goodhart and Thanos Skouras for their comments, without implicating them.

2. Chick (1977) Ch. 3.

3. *ibid.*, pp. 55–7, 131–9.

It was also hinted<sup>1</sup> that final equilibrium solutions as given by comparative static analysis were inapplicable: in the real world the effects of monetary change (or any other sort of change) work their way through time and the final equilibrium result obtained by comparative static analysis is never reached. This is not just due to the length of calendar time required: that would not be a serious problem if we could be sure that the approach to equilibrium was always monotonic, for we at least could reach conclusions about the direction of change. But there have been too many studies of monetary questions in which overshooting of the final position figures prominently<sup>2</sup> for us to rest our case on that. More fundamentally, however, the path to equilibrium is likely to alter the structure of the economy, so that comparative static results do not apply.

In this essay therefore the method of comparative statics is supplanted by process analysis. Because of the complexity inherent in the use of process analysis,<sup>3</sup> the effects of monetary change cannot be traced through very many periods. Nevertheless, the results from using this method are quite powerful. As a result of the analysis,

- (1) a new interpretation of Keynes's position on the relative efficacy of fiscal and monetary policy is offered;
- (2) the difference between Keynes's analysis in the *General Theory* and the subsequent "Keynesian" position is clarified; and
- (3) the fundamental unity of the monetarist and "Keynesian" positions is made more apparent.<sup>4</sup>

II. MODES OF MONETARY CHANGE

A change in the money stock of a closed economy can come about in several different ways. There are, for a start, two suppliers of money; the monetary authorities and the banking system, supplying high-powered and deposit money, respectively. When the monetary authorities allow the supply of high-powered money to increase, an interest rate policy is being pursued, whether implicitly or explicitly. If, for example, the government, for contracyclical reasons, is running a deficit, and — also for contracyclical reasons — it is undesirable to allow the interest rate to rise, then where the deficit is financed by issuing government debt to the public, the central

1. *ibid.*, pp. 131–9.

2. E.g. Laidler (1968), Tucker (1966), Tanner (1969).

3. See Faxen (1957).

4. Continuing the process begun in Chick (1977).



bank simultaneously provides the money wherewith to purchase it; that is, the form of financing by borrowing is preserved, but the usual need to raise interest rates in order to sell the securities is obviated and the net result is a rise in the money supply. As a shorthand, this process will be designated "fiscal policy financed by new money".

Open market operations can of course occur even in the absence of the need to provide new government finance; these constitute the second main source of monetary change. The third main influence of the authorities over the money supply is exercised through the various means of affecting bank lending: calls or releases of special deposits, limits on the expansion of advances, etc. Finally, the banks themselves can initiate monetary change, either because they have reserves in excess of those demanded by the authorities, acquired in a period of pessimism and uncertainty, or because they have some (though in this country quite limited) power to encourage a flow of funds to them by raising rates of interest on their liabilities or indeed, by creating new, more attractive, forms of liability such as negotiable certificates of deposit.

Keynes did not stress these differences. In a passage which, read superficially, provides the source of the Keynesian contention that money ( $M$ ) affects income ( $Y$ ) chiefly through the interest rate ( $r$ ), Keynes treats the monetary financing of government deficits and bank expansion as equivalent:<sup>1</sup>

The relation of changes in  $M$  to  $Y$  and  $r$  depends, in the first instance, on the way in which changes in  $M$  come about . . . [If] changes in  $M$  are due to the Government printing money wherewith to meet its current expenditure . . . [the] new money accrues as someone's income. The new level of income, however, will not continue sufficiently high for the requirements of  $M_1$  [transactions and precautionary balances] to absorb the whole of the increase in  $M$ ; and some portion of the money will seek an outlet in buying securities or other assets until  $r$  has fallen so as to bring about an increase in the magnitude of  $M_2$  [speculative balances] and at the same time to stimulate a rise in  $Y$  to such an extent that the new money is absorbed either in  $M_2$  or in the  $M_1$  which corresponds to the rise in  $Y$  caused by the fall in  $r$ . Thus at one remove this case comes to the same thing as the alternative case, where the new money can only be issued in the instance by a relaxation of the conditions of credit by the banking system, so as to induce someone to sell the banks a debt or a bond in exchange for the new cash. It will, therefore, be safe for us to take the latter case as typical.

1. Keynes (1936) p.200.

It is not safe. Keynes, while beginning the passage by emphasising the importance of the transaction which is the counterpart of the monetary increase, ends by saying it makes no difference. We shall establish that it does.

### III. DEFICITS FINANCED BY NEW MONEY

Monetary finance of government deficits is not unusual in the U.K. Monetary policy in the 1960s was directed toward the interest rate, often mitigating its fluctuations. To the extent that the rate was stabilised, fluctuations in the government deficit were reflected in changes in the money supply.

The important feature of the direct financing case is that autonomous expenditure and the supply of high-powered money increase together, as one and the same transaction. The government's expenditure plan is made *effective* by the creation of new cash: it could not take place without it (unless interest rates were permitted to rise). There should be no dispute, therefore, about the first round consequences of this policy action. The monetary increase, which the monetarists regard as the active element of the policy, is simply the counterpart of the income generated by government expenditure, the aspect focussed upon by Keynesians. In the first round, the government purchases goods and services in exchange for money, providing income paid in the form of money, to the suppliers of those goods and services.

Both Keynesians and monetarists should be able to agree that there is now an excess supply of money. The disagreement concerns the reaction to that excess supply. Keynesians assume that the public react solely by buying bonds; this is the foundation of their assertion that the effect of a monetary increase on income takes place through interest rate changes. Monetarists, on the other hand, would argue that the new money will raise the demand for goods. It is widely believed that this difference of view stems from contrasting assumptions about the substitutability of money for commodities and financial assets. At the extreme, Keynesians are said to believe that the only relevant margin of choice is between money and bonds, while an equally extreme classical view acknowledges only the transactions motive for holding money, thus predicting that an excess demand for money falls entirely on the market for goods. Tobin (1961, 1969) and Friedman (1956) have proposed less extreme versions which, respectively, still preserve the Keynesian emphasis on the money-bond choice and support the monetarist prediction that a change in the money



supply is manifest mainly in changes in output and/or price rather than changes in the interest rate.

But in fact this question of relative substitutability, connected to the question of motives for money-holding, is quite beside the point. In the context of process analysis, which was undoubtedly the method of Keynes's analysis in the passage just quoted, our modern antagonists are referring to different stages in the sequence of events following the monetary change. Let us return to Keynes's description. In the period in which the deficit occurs,  $M$  and  $Y$  increase by the same amount, the amount of the deficit. The need for transactions balances rises with increased income but not *pari passu*: the Cambridge  $k$  is less than one and there are economies of scale in precautionary holdings also.<sup>1</sup> The money not absorbed by transactions and precautionary balances will find its way into the speculative sphere. Initially there is no demand for speculative money holdings (the interest rate is unaltered). Purchases of bonds then lower the interest rates until the speculative demand rises sufficiently to take up all the new money not absorbed by income-related demands. That occurs in the period subsequent to the introduction of new money. The lower interest rate stimulates investment and raises income (and transactions and precautionary demand) still further, somewhat reversing the initial fall in interest rates. It is only to this *second* reaction in the process, the disposal of money not absorbed by  $M_1$  balances, that the "Keynesian bond-money margin" pertains.

Let us explore the transactions demand further, for it is here that the money goods margin is important. Unlike precautionary demand, which is also used for the purchase of goods but only occasionally, transactions balances circulate continuously in exchange for goods. They are not really "held" except on average. Some might suppose that people, or firms, would hold additional transactions balances as a luxury,<sup>2</sup> using some of their increased income to lengthen the period between trips to the market or to the bank.<sup>3</sup> For simplicity, however, it is helpful to assume that changes in the money supply leave the pattern of payments unaffected. Then the increased transactions balances unambiguously would be used in the purchase of commodities, if the new money accrued to households, or raw materials and labour if it accrued to firms.

### Response of Consumers

When household incomes rise, it is typically assumed that both consumption and saving rise. Some of the new money finances the incremental consumption; the rest, saving, may (depending on expectations of interest

rate changes) be used to purchase bonds. In other words, that part of the new money which is added to transactions balances as it circulates in exchange for goods finances what Keynesians call the multiplier, creating income changes in addition to the initial change arising from the deficit.

From the monetarist point of view, the stimulating effects of government expenditure arise from the propensity of those who acquire additional money balances to spend those balances on commodities. But what is the difference? To Keynesians, increased income is an incentive to spend, and financing is rather ignored, it being assumed that income is paid in the form of money. To monetarists, money burns a hole in people's pockets, no matter how it gets there; whether it represents additional income, as in the case being considered, or is an increment to wealth, income remaining unchanged, as in the helicopter case, it raises the budget restraint. A spending decision needs money to finance it, and a rise in the budget restraint (extra money) does typically result in an increment of spending. Keynesians and monetarists should agree on this point. It is awkward for both if they do not, for if Keynesians wish to deny the monetarists' "direct effect" they must repudiate the multiplier; and if monetarists are to sustain the importance of the direct effect, they must accept its consequence, the multiplier.<sup>1</sup>

Conflict may still arise, however, both about the fundamental issue of causation and about the *extent* of expenditure in all rounds after the initial change. First, causation. The monetarist position is that monetary changes *cause* changes in income. So the initial fiscal action, in which money and income increase simultaneously rather than in causal sequence, does not relate to their theory. It is the subsequent rounds of income change which are relevant. Their theory would describe events as follows: each person in the multiplier chain receives an increment of income in the form of money, which money is more than sufficient to cover the old level of transactions. The excess supply of money is spent on goods, which generates income. Thus the monetary increase plays a causal role in the rise in income. From a Keynesian point of view, the desire to increase expenditure comes from the realisation of a higher level of income. The increased volume of money balances (larger pay packet) merely *enables* that desire to become effective in the market place. Its role is not causal.

Second, the *extent* of induced expenditure. Keynesians would insist that the amount was given by the marginal propensity to consume, in each round. The monetarist position is less clear, for they approach the problem as one of adjusting to an excess stock of money. There is on the face of it no simple relationship between the existence of this excess stock and the *rate* at which consumers attempt to get rid of it by spending it. This is a

1. Cf. Friedman and Meiselman (1963), in which the direct influence of money on income is sharply contrasted to the multiplier.

1. See Patinkin (1965), pp.82–88 and Appendix by A. Dvoretzky.  
2. Friedman (1959).  
3. Cf. Clower (1969, 1970).



question of adjustment speed, for which we need to make some assumption such as equality of marginal and average income velocity (the timing of payments remains unchanged; the extra expenditure is spread evenly over the expenditure period).<sup>1</sup> If, by such an assumption, the two approaches were made comparable, it is likely that monetarists would assert a larger impact on the goods market than would Keynesians. This can be inferred from the monetarists' tendency to play down, and even deny, an interest rate effect of monetary change. For there to be no interest rate effect it would appear that one of three assumptions must be adopted: either (1) the marginal propensity to save is zero (with its attendant problems for stability) or (2) the rate of increase of private<sup>2</sup> financial assets keeps pace with the desire of savers to place money at interest, or (3) savers hold all the unspent portion of their new incomes as idle money. It is difficult to imagine modern monetarists owning up to any of these propositions,<sup>3</sup> particularly the last, which, ironically, is the liquidity trap.

Monetarists have avoided having to adopt one of these alternatives by changing the definitions of consumption and saving. Keynes, pursuing the effects of money flows, defined consumption as consumers' expenditure on commodities. Saving, therefore, could take the form only of purchases of financial assets or of idle money holdings. Monetarists have adopted the Fisherian schema, in which consumption is the stream of utility from commodities; saving, therefore, may take the form of purchases of claims to future utility streams, through the acquisition of durable goods. This change of concept permits monetarists to save face when confronted with the choices given above, but does not, of course, contribute to the settlement of differences with Keynesians.<sup>4</sup>

### Response of Firms

We now turn to the response of firms whose sales have risen as a result of government purchases. If the increase in sales is thought to be more than transitory, a revision of output and pricing plans is called for. Assuming an upward-sloping marginal cost curve in the short run, the likely outcome is an increase of both price and output. The increased cash flow from sales will finance the rise in outlays for raw materials and labour to prepare for

1. Since the new money also represents an increase in the wealth of the private sector, the above argument should be equally acceptable to those using a consumption-wealth relation in preference to or in addition to the consumption-income relation.
2. An increase of government bonds has been ruled out by assumption.
3. Even the classical writers didn't; although at times they skated close to accepting the first proposition, it is difficult to pin them down to anything so bold, particularly in the short run, which is our concern here.
4. Friedman (1956) has argued, additionally, that the interest rate effect will be slight because there are so many financial markets over which the demand to place excess money balances may be spread. One could equally well argue that the "direct effect" is vitiated by the existence of a multiplicity of goods. It is not convincing.

an expansion of output. Again, these expenditures will have multiplier effects, and again, if the incremental cash flow exceeds the increased outlays, the remainder will probably be placed in short term securities, pending an investment decision. The extent to which the multiplier consists of real output changes rather than price changes is decided here. Once again, both income and the interest rate are affected in ways which both Keynesians and monetarists should be willing to accept.

### Further Considerations

Overshooting of the interest rate is virtually inevitable, due to the fact that changes in income through the multiplier take time. Keynes short-circuits this process, leaping straight from the interest rate effect to the final equilibrium with his phrase "at the same time to stimulate a rise in  $Y$  to such an extent that the new money is absorbed". It will not happen "at the same time", of course. Assuming (unrealistically) that the initial monetary increase is the only one, money which goes into bonds as a temporary abode of purchasing power will return to active circulation as income grows over time (perhaps quite a long time) and the initial fall in interest will be reversed at least to some extent and perhaps completely. It is even possible that the final equilibrium rate will be higher than the rate obtaining before the deficit is undertaken. (The reason for this ambiguous outcome can be glimpsed in what follows.)

To assume no further monetary increase is unrealistic for two reasons. First, the initial fall in interest is likely to stimulate investment, an activity typically financed by borrowing and often financed initially by *bank* borrowing (which increases the money supply) and funded later. Second, the deficit was financed by high-powered money, the bulk of which would not normally remain in the hands of the public but would find its way to the banking system, where it would constitute an increase in reserves and a base for new lending, just at the time when the demand for bank loans is increasing on account of the favourable prospects for investment. By now it is obvious that to trace out the full effects would be a formidable task. And it would only divert us from our main purpose, which is to explore the difference between new money which finances a government deficit and new money arising from bank lending.

## IV. MONEY CREATED BY BANK LENDING

We now turn to examining the policy of money creation achieved by stimulating an increase in bank lending. Suppose, beginning in bank portfolio equilibrium, that the central bank releases special deposits. Banks have been provided with excess reserves, other things being equal. So the banks should



now be willing to expand their earning assets at every given rate of return: their supply of loans function has shifted rightward. Assuming no previous rationing of credit (by applying exceptionally rigorous standards of credit-worthiness, e.g.) and given a downward sloping demand curve for loans, a fall in the loan rate is required if the *actual* volume of loans is to increase. (A stable demand curve for loans implies no change in borrowers' expectations. This is to some extent unrealistic in the circumstances postulated. We shall return to this point later.) The money supply (deposits) will not rise until loans *have* increased. Thus a fall in the interest rate (now the bank loan rate; in the previous section it was the rate on securities) must occur *prior* to and as a precondition for a money supply increase. While the interest rate in the deficit/new money case played a role in the transmission of policy in the periods *after* the initial increase in the money supply, the role of the interest rate in the transmission of this present form of monetary policy is to convert an increase in bank reserves — which are *not* money — into a rise in deposit holdings of the private sector, which are money.

This is the point at which Keynesians evoke the image of the horse that will not drink. The argument that in a depression an increase in bank reserves will not increase loans, while seeming plausible in a verbal presentation, is harder to sustain in the face of some simple geometry. In Figures 1 and 2 let  $D_{L_0}$  be the demand to maintain the stock of already outstanding loans,  $D_L$  to total demand for loans (hence at  $r_0$  no new loans are sought; at higher rates borrowers wish to repay), and  $S_L$  the banks' willingness to issue and maintain a given level of loans.  $S_L$  shifts to  $S'_L$  as a result of the provision of reserves. For loans not to expand, either banks are in their own "liquidity trap" (Figure 1) or the demand for loans is totally inelastic (Figure 2). A case has been made for the former in recession, though it has been strongly challenged:<sup>1</sup> it has been supposed that banks react to the greater uncertainty and higher probability of bad debts by holding excess reserves rather than expanding loans. And clearly the less responsive borrowers are to interest costs the less the expansion provoked by a given fall in interest rates — though some increase in lending will still take place, even given unchanged expectations, as long as  $D_L$  has some elasticity.

The monetary authorities have always relied to some extent on an expectation effect of a monetary policy shift. In relaxing a constraint on the banks, the authorities indicate an expansionary stance, which firms should see as favourable to profits and investment, thus encouraging borrowing. In terms of the Figures, the  $D_L$  function shifts to the right, and bank lending may increase without any fall in the loan rate. Thus when expectations are allowed to change, a change in the interest rate is not *essential* to the transmission of this form of monetary policy. Its significance depends on the "announcement effect" of policy on expectations.

1. Morrison (1966, Chapter III), reviews this hypothesis. See also Brunner and Meltzer (1968), who apparently worked independently, as they do not refer to Morrison's study. Both studies are quite critical of the hypothesis, for a variety of logical reasons, and adduce evidence against it.

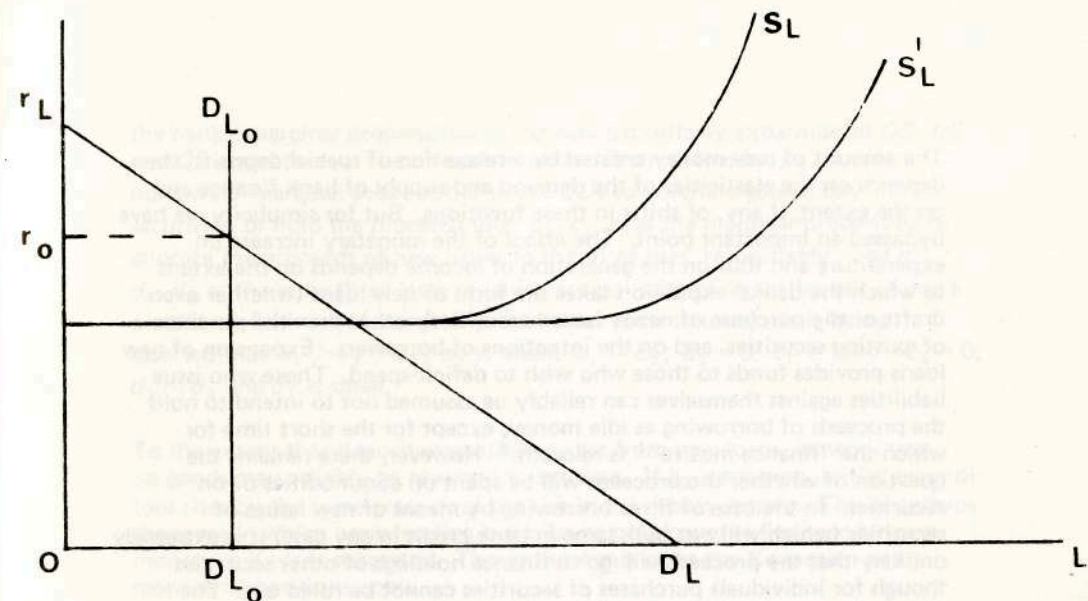


Figure 1.

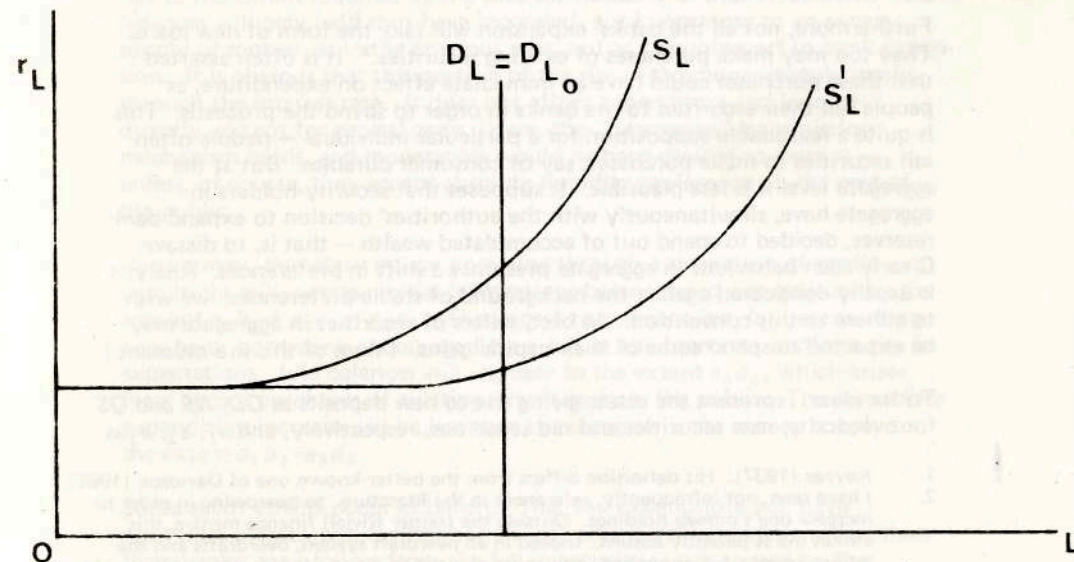


Figure 2.



The amount of new money created by a relaxation of special deposits, then, depends on the elasticities of the demand and supply of bank finance and on the extent, if any, of shifts in these functions. But for simplicity we have bypassed an important point. The effect of the monetary increase on expenditure and thus on the generation of *income* depends on the extent to which the banks' expansion takes the form of new loans (whether overdrafts or the purchase of newly issued securities) rather than the purchase of existing securities, and on the intentions of borrowers. Expansion of new loans provides funds to those who wish to deficit-spend. Those who issue liabilities against themselves can reliably be assumed not to intend to hold the proceeds of borrowing as idle money, except for the short time for which the "finance motive"<sup>1</sup> is relevant.<sup>2</sup> However, there remains the question of whether the proceeds will be spent on commodities or on securities. In the case of firms borrowing by means of new issues of securities (which will not bulk large in bank credit in any case) it is extremely unlikely that the proceeds will go to finance holdings of other securities though for individuals purchases of securities cannot be ruled out. The preponderance of existing securities in the market ensures that most of the money channelled into securities markets will not support deficit expenditure.

Furthermore, not all the banks' expansion will take the form of new loans. They too may make purchases of existing securities.<sup>3</sup> It is often asserted that these purchases could have an immediate effect on expenditure, as people sell their securities to the banks in order to spend the proceeds. This is quite a reasonable supposition for a particular individual — people often sell securities to make purchases, say of consumer durables. But at the *aggregate* level it is less plausible. It supposes that security-holders in aggregate have, simultaneously with the authorities' decision to expand bank reserves, decided to spend out of accumulated wealth — that is, to dissave. Clearly such behaviour in aggregate presumes a shift in preferences. Analysis is usually conducted against the background of stable preferences; we wish to adhere to this convention. At best, sellers of securities in aggregate may be expected to spend some of their capital gains. (More of this in a moment.)

To fix ideas, represent the assets giving rise to new deposits as *OD*, *NS* and *OS* for overdrafts, new securities and old securities, respectively, and  $a_1$ ,  $a_2$ ,  $a_3$  as

1. Keynes (1937). His definition differs from the better-known one of Davidson (1965).
2. I have seen, not infrequently, references in the literature to borrowing in order to increase one's money holdings. Outside the (rather trivial) finance motive, this strikes me as patently absurd. Indeed in an overdraft system, overdrafts and the money supply do not expand until those granted an overdraft actually make use of it.
3. While overdrafts bear a higher rate of return, bank expansion usually includes some securities, to maintain liquidity. In general, banks may be supposed to be indifferent between new and old securities. In the UK they typically buy "seasoned" securities, leaving it to the discount houses to buy at tender.

the banks' marginal propensities to increase deposits by expansion of *OD*, *NS* and *OS* respectively. The  $a$ 's sum to unity. Then define  $b_1$ ,  $b_2$ ,  $b_3$  as borrowers' marginal propensities to use *ODs* to purchase goods, buy securities, or hold the proceeds idle;  $c_1$ ,  $c_2$ ,  $c_3$  as the marginal propensity to allocate the proceeds of new issues to the three uses, respectively; and  $d_1$ ,  $d_2$ ,  $d_3$  as the same three uses to which are put sales of securities out of one's portfolio. Each set of marginal propensities sums to unity. It is being asserted that  $a_1 > a_3 > a_2$ ;  $a_2$  is small;  $b_1 > b_2$ ;  $b_3 = 0$ ;  $c_1 = 1$ ;  $c_2 = c_3 = 0$ ;  $d_2 < d_3$  and  $d_1$  is small.

To the extent that deposit expansion results from new loans, expenditure on goods may reliably be assumed to increase. If  $b_2$  were zero, initial expenditure rises by the same amount as the rise in the money supply. This is perhaps the sense in which bank lending is similar to public works financed by new money, as Keynes suggested. The earlier remarks on the Keynesian and monetarist positions apply.

To the extent that the banks' expansion takes the form of purchases of existing securities, those purchases will lower the rate of interest on securities to the extent required by the interest elasticity of money demand. Idle balances willingly held thus have increased, not in *response* to an excess supply of money, as in the previous case, but as a counterpart to bank expansion. It is obvious that this portion of the rise in the money supply works through the interest rate. It does not affect expenditure and income directly, except for capital gains. Here, the "Keynesian" transmission mechanism holds, and monetarists would be hard pressed to deny it — unless, of course, they accept absolute liquidity preference on the part of the public.

In summary, monetary policy operating through a relaxation of credit conditions will increase initial transactions balances and expenditure by the amount  $a_1 b_1 + a_2 c_1 + a_3 d_1$ . The largest component is  $a_1 b_1$ , representing new bank borrowing encouraged by a fall in the loan rate and/or a rise in expectations. Idle balances will increase to the extent  $a_3 d_3$ , which arises from banks' purchases of existing securities from the public. The *immediate* expenditure increase will be less than the increase in the money supply to the extent  $a_1 b_2 + a_3 d_3$ .

Subsequent effects occur as before. The new expenditure will have multiplier effects, and further borrowing, on securities markets rather than from banks, may follow from the fall in security yields caused by the banks' demand for securities. But for any given increase in the quantity of money, these income effects will begin from a smaller first-round income change, compared with the fiscal deficit case. So if the *rate* at which the



multiplier proceeds, and the *rate* at which investment responds to lower interest rates, and the *rate* at which savings are placed in securities markets are assumed to be given, then at any point in time the position of the economy will be different according to the manner in which money is increased. Differences may diminish over time, as the decisions of many periods outweigh differences in initial conditions, but the independence of long run equilibrium from the path taken to reach it is a classical article of faith, not a demonstrated proposition. And in any case policy-makers are interested in the short run.

## V. OPEN MARKET OPERATIONS

And so to the third method of increasing the money supply, which we can deal with fairly quickly. The interesting feature of an open market operation is that it is concerned entirely with the composition of the public's financial wealth. An open market purchase increases the supply of money and decreases the volume of bonds outstanding. Typically the rate of interest falls, to persuade bond holders to sell to the government broker; the extent of its fall is given by the interest-elasticity of liquidity preference. There are some capital gains for those who sell — there is no initial change in income proper. Surely this is the case in which the Keynesian transmission mechanism is most obviously appropriate and relevant.

The monetarist direct effect could play a major role if it were reasonable to assume that the intervention of the government broker determined only the timing of the sales of securities on the part of households which were intending to spend but were waiting for a favourable moment to sell their assets. But as pointed out above, this amounts in aggregate to a desire to dissave — an extreme assumption which monetarists have never explicitly endorsed. The monetarist direct effect may have a role to play, but it is more properly limited to that portion (given by the marginal propensity to consume?) of capital gains which are spent on commodities.<sup>1</sup>

For the Keynesian transmission mechanism to be the exclusive means of transmission, all capital gains must be ploughed back into the speculative sphere, as idle money holdings. This is not an implausible assumption. The reasoning is as follows. Bond-holders have sold to capture a capital gain. If they expect the policy to work in the traditional manner, the fall in the interest rate will encourage investment; this will increase the demand for funds on the securities market and raise the interest rate once again. Those who sold securities may be waiting for that rise, after which securities become cheap again; they are holding money idle meanwhile.

1. Friedman (1975) suggests that windfalls are spent on durables. But are capital gains which are actively sought by those "playing the securities market" regarded as windfalls?

If this behaviour is typical, the interest rate is the *sole* transmitter of this form of monetary policy. In any event, one can say with confidence that because capital gains are small relatively to the monetary change effected by open market operations, the monetarist direct effect is far smaller in this case than in the other two modes of monetary increase which we have analysed.

## VI. RESOLUTION

Is it not possible to come to some agreement? It would seem plausible to suggest that when Keynes talked of monetary policy he had in mind the type most prevalent in his time (and still):— open market operations. With a minor qualification this is the type of policy for which it is most obviously true that money has its chief effect through the interest rate. This fact has nothing to do with the absence of a money-goods margin of choice; it arises *because of the way money enters the system*. In an open market operation, the government broker *poses* a money-bonds choice. What happens subsequently depends on how people spend out of accumulated wealth and capital gains, questions on which, unlike expenditure out of income, there is no widely accepted presumption of behaviour. They may not plan to spend any of it, but if they do, the amount is most unlikely to be significant.

Contrast the cases explored above with the "helicopter" policy. The new money is clearly a windfall. No effort has been expended to earn it, so it is perceived as an increase in wealth, not income. It comes all at once, not gradually as payment for goods or services. With this increase in wealth, the incentive to save is far less than it would be if the money accrued gradually as income, where even though wealth has increased it is less obvious to the receiver. The very prudent might place some of this new "helicopter" money at interest, but it is not implausible that most of the money will be spent on commodities. It does not matter whether the commodities are durables, which in the Fisherian income schema count as saving: the point is that there is expenditure on goods rather than financial assets. The monetarist direct effect naturally dominates — would not Keynesians agree?

For the other cases explored in this paper, it has been shown that it is important for Keynesians and monetarists to see that there is a unity in the idea that income determines the plan to spend and money makes it possible, for otherwise each is placed in an absurd position: for Keynesians to refute the direct effect they may have to disown the multiplier, and monetarists may have to embrace the liquidity trap to prevent interest rate changes from absorbing some of the adjustment to monetary change. But the most important message is the futility of talking about the transmission mechanism divorced from the type of monetary change being considered. A debate which is not at cross-purposes is more likely to take place if the specific properties of different policy options are taken into account.



## REFERENCES

- Brunner, K. and A. H. Meltzer (1968), "Liquidity Traps for Money, Bank Credit and Interest Rates", *Journal of Political Economy* 76, 1-37.
- Chick, V. (1977), *The Theory of Monetary Policy*, revised edn., Basil Blackwell, Oxford. (First edn. Gray-Mills, London, 1973).
- Clower, R. W. (1969), Introduction, in R. W. Clower, ed., *Monetary Theory*, Penguin Books, Harmondsworth, Middlesex.
- Clower, R. W. (1970), "Is There an Optimal Money Supply?" *Journal of Finance* 25, May: 425-434.
- Davidson, P. (1965), "Keynes's Finance Motive", *Oxford Economic Papers* 17.
- Faxen, K. - O. (1957), *Monetary and Fiscal Policy under Uncertainty*, Almquist and Wiksell, Stockholm.
- Friedman, M. (1957), *A Theory of the Consumption Function*, Princeton University Press for the National Bureau of Economic Research, Princeton, N.J.
- Friedman, M. (1959), "The Demand for Money: Some Theoretical and Empirical Results", *Journal of Political Economy* 67, August.
- Friedman, M. and D. Meiselman (1963), "The Relative Stability of Monetary Velocity and the Investment Multiplier in the United States"; Commission on Money and Credit, *Stabilisation Policies*, Prentice-Hall, Englewood Cliffs, N.J.
- Keynes, J. M. (1937), "The 'Ex Ante' Theory of the Rate of Interest", *Economic Journal* 47, 663-669.
- Laidler, D. E. W. (1968), "The Permanent Income Concept in a Macro-economic Model", *Oxford Economic Papers* 20, 11-23.
- Morrison, G. (1966), *Liquidity Preferences of Commercial Banks*, The University of Chicago Press, Chicago.
- Patinkin, D. (1965), *Money, Interest and Prices*, 2nd edn., Harper and Row, New York.
- Tanner, J. E. (1969), "Lags in the Effect of Monetary Policy: a Statistical Investigation", *American Economic Review* 59, 794-805.
- Tucker, D. (1966), "Dynamic Income Adjustment to Money Supply Changes", *American Economic Review* 59, 433-449.

## THAMES PAPERS IN POLITICAL ECONOMY:

### A LIST OF PAST PAPERS

- History versus Equilibrium, JOAN ROBINSON (Autumn 1974)
- An Essay on the Political Economy of Chinese Development, AJIT SINGH (Spring 1975)
- Government Activity and Private Profits, THANOS SKOURAS (Summer 1975)
- Capital Theory : Much Ado About Something, G. C. HARCOURT (Autumn 1975)
- Varieties of Keynesianism, ALAN CODDINGTON (Spring 1976)
- Six Myths of British Oil Policies, PETTER NORE (Summer 1976)
- Economic Theory and Expanding State Activity, GEORGE HADJIMATHEOU (Autumn 1976)
- Empiricist Methodology and the Development of Economic Thought, FRANCIS GREEN (Spring 1977)
- Political Concomitants of Rapid Industrialization, THANOS SKOURAS (Summer 1977)
- Crisis Theories in Economic Thought, ANWAR SHAIKH (Autumn 1977)