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ALTERNATIVE TECHNIQUES OF MONETARY CONTROL WITH SPECIAL REFERENCE TO AUSTRALIA

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In recent years there has been renewed interest in the use of monetary policy as a stabilization tool. While there has been much dispute as to the role that monetary policy should play in economic stabilization, it has become increasingly popular for academic economists, especially in North America, to view open market operations, i.e., the buying and selling of government securities, as the sine-qua-non of monetary control. Thus open market operations, through the control they exert on the money supply, are seen as the most effecient means by which the monetary authorities can affect the general level of liquidity in the economy and, therefore, as the principal tool in using monetary policy as an aid to achieving economic stability.

The argument of this paper is that:

1. appropriate reserve asset ratios will achieve the same results as open market operations although the linkage will be from advances to deposits rather than deposits to advances.

2. ceilings on the availability of credit rather than concentration on control of the money supply will be just as effective in influencing the level of economic activity as control of the money supply.

3. regardless of which of these macro-economic controls are used, open market operations, reserve asset ratios or credit

controls, the monetary authorities need to have at their disposal the use of direct credit controls or moral suasion to improve the equity of the monetary control operation.

4. the method chosen to control the monetary sector will be largely dependent on existing economic conditions together with the social and institutional framework of the country concerned.

5. concentration on a more eclectic approach may well improve the efficiency of monetary control.

Therefore the argument that open-market operations are the only effective technique of control is spurious. Alternative methods exist which can be just as effective and may, when used in conjunction with open market operations, aid the control of the monetary sector of the economy. Thus it matters little whether the monetary sector is controlled through the agency of debt management, reserve asset ratios or by more direct means - the same ends will be served. The predisposition of some economists to attack alternative techniques of control serves no useful purpose. Economists could better spend their time looking at ways to improve the efficiency of existing control techniques rather than engaging in esoteric arguments that are often rooted in political beliefs rather than based on any economic premise.

Before proceeding it is perhaps desirable to give a brief resumé of the argument put forward for the use of open market operations. This method is favoured because, by operating through

the market mechanism, buying and selling government securities, the central bank can efficiently affect the broad range of financial institutions in the economy in an impartial way. Thus the central bank can have a pervasive effect in the economy while allowing financial institutions (both bank and non-bank) to compete effectively within the prevailing market for money. Open market operations enable the pricing mechanism, namely the rate of interest, to determine the relative position and asset structure of these institutions without the use of more arbitrary methods of control.

While this is one method of control that can be used to control the monetary sector the crucial questions we need to ask are:

1. can other techniques of control achieve the same task equally well?

2. would the operations of debt management as a means of monetary control be enhanced by the use or possible use of other techniques of control?

In particular we want to look at the vexing question of why some economists look askance at alternative methods of control while "singing the praises" of the superiority of this method over others available. For this method of control does suffer from a number of problems associated with:

A. the variable to be controlled i.e. the money supply,

B. the effectiveness of open market operations in controlling this variable,

C. if we concede that economic control should be directed towards achieving generally accepted goals in society, can we claim that the impartiality claimed as a strength of this form of control is a valid argument when it may conflict with stated social objectives.

The problems associated with the first of these derives from the question of what constitutes the money supply and that, having decided on this issue, the money supply, however defined, is not controlled directly by the monetary authorities.

There has been a great deal of argument as to what constitutes the money supply. Thus the money supply can be defined as consisting of cash in the hands of the public plus demand deposits at commercial banks (M1): or consisting of the components of M1 plus time deposits at commercial banks (M2); or of components of M2 plus deposits at savings banks and credit unions (M3): or of components of M2 plus large certificates of deposits issued by commercial banks (M4): or, finally, consisting of all the deposits of all financial institutions. But to concentrate on controlling anyone of these variables may not have the desired effect on the level of economic activity. In general most economists would prefer

to use the first definition because of the fact that demand deposits are regarded as perfect substitutes for money. But concentrating on M1 can be a misleading guide to the degree of monetary ease or restraint. For example, in times of declining economic activity both the transactions demand for cash and the private demand for credit will fall, leading to a fall in the growth of M1. But at the same time market rates of interest will fall, leading to a growth of time and savings deposits at commercial banks and other institutions. Alternatively, in times of economic expansion a monetary policy formulated on the basis of M1 alone would ignore the pressures of disintermediation that develop in periods of economic expansion and therefore threaten serious damage to the mortgage market and housebuilding industry.

It may therefore be argued that one of the other definitions of money supply should be used. But these too suffer from problems, the major one being that, for example, an expansion in the level of time deposits or savings bank deposits, while showing a growth in M2 and M3 respectively, may not necessarily reflect a change in the tempo of economic activity but rather reflect a desire to reallocate private portfolios, in an attempt to remain relatively liquid while at the same time earning a rate of return.

These factors are further complicated if, as in Australia, an overdraft system of banking is predominant, because of the existence of unused limits as additional sources of

liquidity that have a tendency to be activated in times of economic restraint. In Australia the ratio of advances to limits varies as between different sectors in the economy but as a whole has usually varied between 50 % and 60 % so that the size of the liquidity reserve is indeed high. Thus, to concentrate on one of the existing definitions of the money supply is to underestimate the degree of liquidity in the economy.

A further problem also arises in using open market operations to control the level of the money supply because the latter is not, as many of the advocates of this method of control argue, under the control of the monetary authorities. The portfolio decisions of the commercial banks and the public in reaction to open market operations will effect the supply of money. Thus to say that a change in what can be called the monetary base (Government securities and cash held by the private sector) will automatically lead to a change in the supply of money, ignores the fact that the private sector's holdings of cash and government debt are affected by their willingness to hold them and not just their availability. For example the central bank may set out to expand the money supply by buying government securities but the effectiveness of the policy can be circumvented by:

1. banks refusing to sell government bonds in the expectation that prices will rise higher,

2. banks using additional funds to repay indebtedness to the central bank,

3. banks adding to liquid reserves rather than lending so as to have a reservoir of liquidity for the future,

4. the use of the proceeds to repay foreign indebtedness,

5. the public putting the money into non-bank financial intermediaries so that the use of any of the narrower definitions of the money supply would give a distorted view as to the general liquidity of the economy.

Alternatively an attempt by the central bank to sell government securities and therefore to decrease the general level of liquidity does not necessarily imply that people will want to buy them even if higher interest rates are offered e.g. there may be a general presumption that the government securities sold will not be taken up and that interest rates offered are not high enough to attract sufficient lenders. This will cause lenders to refrain from buying government securities because of the fear that interest rates will have to rise further and therefore will involve book capital losses for those who buy government bonds now. Thus the public and commercial banks may be unwilling to take up government debt, a problem that was faced by the Australian government in 1974.

Therefore control of the money supply through open market operations is more complicated than many of its adherents would care to admit. Changes in the assets and liabilities of commercial banks, e.g. a switch in preference out of demand

deposits and into time deposits encouraged by the banks through the interest rate mechanism; the spending decisions of the treasury and public authorities; and decisions as to the composition of assets of the private sector all effect the money supply.

Even if we ignore the problems of the variable to be controlled the use of open market operations as a technique to control economic activity through changes in the money supply has certain other disadvantages.

Firstly, the use of open market operations involves considerable time lags. Financial institutions, can in the short run, adopt a number of methods to circumvent a given policy. For instance, at times when the central bank is attempting to stimulate economic activity, financial institutions may seize the opportunity to build up a reserve of liquidity rather than expand the level of advances. Conversely, in times of credit restraint banks may be willing to take capital losses for a short period of time by selling government securities.

Secondly, a policy of selling bonds not only increases the size of the government debt but also increases the interest burden of such debt. It also imposes problems for the future funding of such debt, e.g. the monetary authorities may find that there is a shortfall in the taking up of new debt and will have to assist the treasury in a refunding operation by buying government bonds at a time when the reserve policy is desired.

Thirdly, an increase in interest rates may lead to the attraction of foreign capital which will offset the original policy. Michael Porter[1] in a study of the Australian economy over the period January 1970 to December 1972 found that although there was credit restriction in the form of official bond sales of $ 3000 million, the result of this policy was to induce net capital inflow of $ 1400 millions. The reason for this capital inflow was that the adoption of a restrictive monetary policy pushed Australian interest rates out of line with those in the rest of the world. With a strong balance of payments and the higher return available, there was a strong inducement to send money to Australia. The effect was to lead to increased bond sales to offset the capital inflow, leading to further inflows and increased reserves which still further increased the speculative inflow. Thus a joint implication of speculation and the use of open market operations to control the money supply without taking account of interest yields abroad led to a snowballing effect of capital inflow and open market sales of bonds. Porter also argues that other countries have experienced similar effects in the 1970's - especially West Germany where open market operations were offset 80% by speculative capital inflow.

This then must be considered one of the major disadvantages of the use of open market operations under a period of fixed exchange rates and let us not forget that this method of

1. Porter M.G.: "The Interdependence of Monetary Policy and Capital Flows in Australia" - The Economic Record, March 1974, p. 1-21.

control was seen by many as the sine-qua-non of monetary control long before the present period of managed floating rates.

Such a problem, so adherents of open market operations argue, has largely been overcome by allowing exchange rates to fluctuate so that any increase in capital inflow will lead to an appreciation of the exchange rate. However, by the time the exchange rate adjusts to allow for the effects of the capital inflow the damage, in terms of a large boost to domestic liquidity, may already have been done. The result may be a cumulative effect of increased capital inflow, rising interest rates through open market bond sales and continuing revaluations all of which may seriously dislocate the domestic economy. In any case many economists would argue that exchange rates should be allowed to fluctuate in order to take account of the changing economic competitiveness of countries but not to take account of short run speculative flows. It may also create further problems by leading to dislocation of investment plans in the export industries that are adversely affected by a change in the value of the currency. Thus even under a system of floating exchange rates the increasing interdependence of world economies makes it difficult for a country to adopt an independent interest rate policy and if this is the case, as in the United Kingdom at present, then the use of open market operations to control the economy may have to be replaced or at least assisted by some other form of control.

Fourthly, open market operations will have little succes in restraining the level of economic activity in a situation where the banks have a large degree of excess liquidity because banks are likely to buy up the government securities offered without having to contract the level of advances.

Lastly, it is often argued that open market operations alone are a sufficient means of control because they effect the economy in the broadest possible sense. However, experience has shown that this technique of control is arbitrary in the sense that it fails to take account of social goals and is also discriminatory in that the bulk of control falls on selected areas of the economy. Of note in this category is housing which is often regarded as a top social priority in many countries.

Thus open market operations suffer from certain disabilities which limit their effectiveness as a tool of monetary policy control. Reserve asset requirements suffer from some similar problems. Under this method of control the variable to be controlled is still the money supply (a forced contraction of advances will lead to a contraction in demand deposits) and thus the problems associated with the control of this variable discussed above applies equally to reserve requirements as to open market operations.

However, the use of this method of control can avoid many of the problems associated with the use of open market operations and may be used as a supplement or complement to the buying and

selling of government bonds. The use of a reserve asset ratio is advantageous in that:

1. it involves shorter time lags

2. it avoids the difficulties associated with the funding of the national debt

3. it lessens the problem of circumventing credit restraint through capital inflow although firms may switch away from credit financing to debenture issues

4. the possibility of selling government bonds to avoid credit restraint can be overcome by an appropriate liquidity ratio. We should note in this regard Aschiem´s argument in the Economic Journal of 1959, that the imposition of higher reserve requirements induces the banks to switch out of government securities into loans on a higher scale than with open market operations because of liquidity and income effects. Even if we accept this argument (and there is some dispute as to whether this actually occurs - see Gurley and Goode Economic Journal 1960 p. 616) then if the sales of bonds are greater under reserve asset requirements then capital losses are greater and if banks are sensitive to realized capital losses they will be less willing to sell bonds. Also Aschiem´s argument need not apply in a case when banks are fully lent up, providing that an adequate liquidity ratio is used. Australia has avoided this problem by the use of two asset ratios that are adhered to by the commercial banks. The first of these is the liquid assets and government securities ratio (L.G.S.) which since 1962 has been 18% of total demand deposits. The second

is called the Statutory Reserve Deposits Account (S.R.D.) which is a compulsory deposit held at the central bank and is the equivalent of a reserve asset ratio. In this situation Aschiem's fear of a switch out of government bonds into advances following a call to the reserve account cannot occur if the banks are fully lent up i.e. the L.G.S. ratio is close to 18%. For if an adequate liquidity ratio is used which includes all government securities, as the L.G.S. ratio does in Australia, there is no possibility of selling government bonds as a means of avoiding the credit restraint.

Lastly we need to consider one major argument directed against this method of control. This is that it concentrates only on the commercial banking sector and therefore lacks the broad macro economic effects accredited to open market operations. Thus it is argued that in a period of credit restriction the effect of the use of this method of control will be to lead to an increased growth of non-bank financial institutions outside the control of the monetary authorities.

This argument against the use of reserve asset ratios had considerable force in Australian economic thinking where it was argued that the use of the Statutory Reserve Deposits Ratio during the 1960's had unjustly discriminated against the banking sector and expanded the size and importance of those financial institutions lying outside the control of the monetary authorities. The fact tha the banking sector, as a proportion of the total financial sector, began to increase in size at the end of the 1960's, when there was a switch in emphasis towards the use of open market operations

is usually regarded as a vindication of this policy switch. Thus Arndt and Stammer[2] have argued that "the recent increase in the share of bank credit reflects a change in emphasis of central bank policy away from direct control towards operations on the general liquidity of the community".

However such a conclusion is not a valid assessment of the effects of the different techniques of control on financial institutions. The reason for the resurgence in the importance of the banking sector was related to a more cautious approach towards non-bank financial institutions by lenders following the bankruptcies in the 1961 credit squeeze as well as to a deliberate attempt by the central bank to reverse the decline in the importance of the commercial banks by removing a number of restrictive limitations on them. Also the 1950's, which saw a strong growth in non-bank financial intermediaries, was a period of rapid industrialization and the growth of non-bank financial institutions during that period more likely reflected the developing maturity of the economy rather than an attempt to avoid monetary control.

In any case this argument against the use of reserve asset ratios ignores two major points. Firstly, in many cases the sources or potential sources of funds for the setting up of these institutions depends on the availability of funds from the banking sector. Secondly, firms or persons with funds

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2. Arndt, H.W. - Stammer, D.W.: The Australian Trading Banks, p. 80.

available in a credit squeeze will adopt a more cautious attitude to investing in the establishment of new fringe institutions because they are likely to be more concerned with their own liquidity position and the degree of risk, to an equal, if not greater extent than with the rate of return. Thus these people may prefer to adopt an attitude of wait and see, eventually preferring to remain liquid in order to protect their own liquidity position or opting for those financial institutions that have lender of last resort facilities, namely the commercial banking sector.

In any case reserve requirements can be placed on non-bank financial institutions as well (or alternatively some other means of control). Until recently this was regarded as impossible in Australia because the constitution limited the economic powers available to the Federal Government. However, a significant High Court ruling in 1971 which interpreted the constitution more liberally widened the powers available to the Federal Government and in 1974 the government succeeded in pushing a bill through parliament which placed direct controls on non-bank financial intermediaries. Such a move has often been supposed to lead to the setting up of new fringe banking institutions but the extent to which an economy can support financial institutions is limited and this argument ignores the strong informal links that exist between the monetary authorities and the financial sector in most countries. Thus the Reserve Bank of Australia, commenting in its annual report on the planned government legislation, argued that

"to the extent that the singling-out of banks affects the pattern of the business they undertake, questions of efficiency in the conduct of the community's financial intermediation arise and on these grounds there is some case for limiting the degree and manner of treating banks differently from non banks"[3].

Thus the argument that reserve asset ratios are undesirable is largely fallacious. This is not to say that they overcome all the objections I have raised against the use of open market operations nor that they are "the right" method for managing the monetary sector of the economy. The argument is that they are a possible and valid alternative to the use of open market operations.

On similar grounds a case can be made for the use of a policy of limiting advances either through discount rate policy or a restriction on the amount of central bank credit as a supplement or complement to open market operations. The use of such a policy avoids those problems associated with the definition of the money supply aggregate. It also enables the authorities to reach additional monetary targets such as the easing of an upward pressure on interest rates and it can achieve the desired monetary objective more quickly. At the same time it can enable the government to borrow at lower rates of interest and thus relieve fears of a liquidation

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3. Reserve Bank of Australia - _Annual Report_, 1973/74, p. 25.

crisis for the national debt. Empirical evidence from Pankratz and Miller[4] suggest that quantitive controls on bank lending can assert a contractionary pressure on the economy accompanied by a smaller increase in yields on government long-term debt than would be possible with full reliance on open market operations to ration credit.

It is often argued that the use of this policy will also be undermined by the existence of non bank financial intermediaries. Thus a policy of limiting advances of the banking sector during a period of excess liquidity leads to a build up of liquid assets within the banking sector causing the banks to increase their percentage of securities leading to an increased price for bonds and a decrease in interest yields. However, if non-bank financial institutions exist, people who are refused credit will turn to them thus leading to a reversal of rates and the obtaining of credit from outside the banking sector. However, as for reserve requirements this argument ignores a number of factors and the problem can easily be overcome by the placing of controls on non-bank financial institutions.

Thus in a similar vein to the argument concerning reserve asset requirements, the disadvantages of this form of control are certainly no greater than under open market operations, especially if the maintaining of lower interest rates is regarded as a socially desirable objec·ive.

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4. See Hodgmann: Credit Allocation T·chniques and Monetary Policy, Federal Reserve Bank of Boston, 1974.

Therefore the key argument of this paper is that these three methods of control are different ways of achieving the same objective. The three methods of control differ only in emphasis. Open market operations and reserve asset ratios affect the determination of the credit supply through the less direct means of liquidity control while restrictions on credit availability achieve the same objective through the more direct (but no less effective) method of credit ceilings. For the control of the money supply in periods of economic restraint eventually leads to a rationing of credit through a restriction on the level of advances. Although they may result in a different composition of assets the argument over which is more desirable is largely esoteric. Which method is to preferred will therefore largely depend on the economic, social and institutional structure of the country concerned. The predisposition to favour open market operations and to look askance at other methods of control is a concept born of the failure to understand the given economic, social and institutional environment that the monetary authorities have to work within. An example of this is the United Kingdom where the Bank of England after a long period of using more direct methods of control announced in the early 1970's a new policy of control that laid a heavy emphasis on the use of open market operations. However, in effect the monetary authorities, have had, to a large extent, been forced to fall back on traditional methods of control because of London's leading position as a financial centre. For the use of variations in interest rates through open

market operations as a means of controlling the domestic money supply has largely been subordinated to the policy of ensuring that interest rates remain competitive with those being offered abroad as a protective measure against a run on sterling. While this may conform with the desired effects on the domestic liquidity front, the crucial point is that the Bank of England has been forced to fall back on its traditional weapons of control. To argue that this problem could be avoided by letting the pound float down ignores the role played by London in international financing. A failure to keep interest rates competitive with abroad could lead to such an enormous outflow of capital (largely Arab oil money) that the harm done to London's role as a financial centre (and the consequent loss of a large amount of the invisible earnings that remain paramount to the United Kingdom's international solvency) would have a catastrophic effect on the British economy. So, in this case, the institutional setting i.e. London's position as a leading financial centre and the economic situation, i.e., the general weakness of sterling, means that open market operations cannot be used solely to control the domestic money supply without taking account of external factors.

While these general macro economic policies outlined above will be the mainstay of monetary control, certain economic conditions may require more selective credit controls. It is generally argued that these controls should be avoided because they lead to economic distortions, encourage divergence of

real resources into finding ways to avoid them and are discriminatory against certain sectors of the economy. However, in the short run they can be a useful adjunct to the more general methods of monetary restraint. For instance, if an industry is having a serious destabilizing effect on resource allocation within the economy, then a strong case can be made out for instructions by the central bank to financial institutions to adopt a selective approach in the allocation of credit to conform more readily with a better allocation of real resources.

Many economists would disagree with this point of view and argue that we should accept this uneven impact of general forms of credit restraint. They would further argue that if there are social and equity arguments that need to be taken into account, we can best achieve these by direct assistance through fiscal means. However, this argument rests on the assumption that the benefits are greater and the costs less by using such a method rather than the alternative use of direct credit controls. But the use of fiscal policies will either lead to:

- a rise in taxation with possible adverse disincentives in the economy

- the abandonment of other social projects

- a larger budget deficit that will boost the money supply and therefore conflict with the original policy of restraint.

The arguments about the cost of administering direct credit controls as well as the resources devoted to avoiding them are no less under a subsidy/taxation scheme than credit controls. There therefore seems little reason to prefer fiscal policy to monetary policy in accounting for the adverse effects of monetary restraint.

Thus complete reliance on more general forms of credit control is undesirable because, in their real resource allocation effect, they either underinvest in socially desirable projects or overinvest in projects that may involve heavy social costs. The argument put forward by those arguing for the use of open market operations, that market forces should not be distorted because they are general and non-discriminatory in their monetary effects is an illusory one. It is precisely because market forces <u>are discriminatory</u> that there is a role to be played by the monetary authorities in the direction of credit. For, when monetary policy is tightened, the burden on different sectors of the economy is uneven and haphazard. Who bears the burden depends not on equity or economic efficiency but upon the particular distribution of debts, assets and cash flows that exist at the start of the period of monetary restraint. Thus while arguing that the best methods of control are ones which give the broadest effect in the economy, these need to be regulated by more specific methods of control to take account of social priorities. Policies which rely on broad effects such as open market operations are insufficient to meet the priorities of a national economy.

In conclusion, the argument of this paper has been that it matters little which technique of control over the monetary sector is used to influence the level of economic activity. Whether it be through debt management or more direct means the same ends will be achieved. The attack has largely been centered on open market operations as a means of control, not because this method is less desirable but because some economists have seen it as the sine-qua-non of monetary control. The decision as to which method is more desirable will depend on a number of economic, social and institutional factors of the particular country concerned. For example where there is no large secondary market for government securities it is generally agreed that open market operations cannot be used. But even where such a market does exist there is no particular reason for supposing that open market operations are more desirable. My own position is that where a secondary market for government securities does exist the monetary authorities should adopt an eclectic approach to monetary control relying on different weapons according to the prevailing economic conditions. The question is perhaps in this case not so much which but what is the right policy mix.

In Australia the monetary authorities have in the post war era passed through periods where each of these methods of control was the major policy instrument. They have shifted emphasis from general credit controls in the immediate post war era, to reserve asset requirements in the 1950's and

early 1960's and towards the use of open market operations in the late 1960's and early 1970's. They now appear to have settled for a policy mix using all three monetary forms of control and thus have at their disposal a wide range of controls to meet any existing contingency.

In this fast changing economic world, monetary authorities armed with all methods of control available (providing that they use them with a sense of maturity and, perhaps more important, with flexibility) are likely to be better able to cope with a given economic situation than those who through the arguments of certain economists place all their faith in the effectiveness of open market operations and the freedom of market forces.

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