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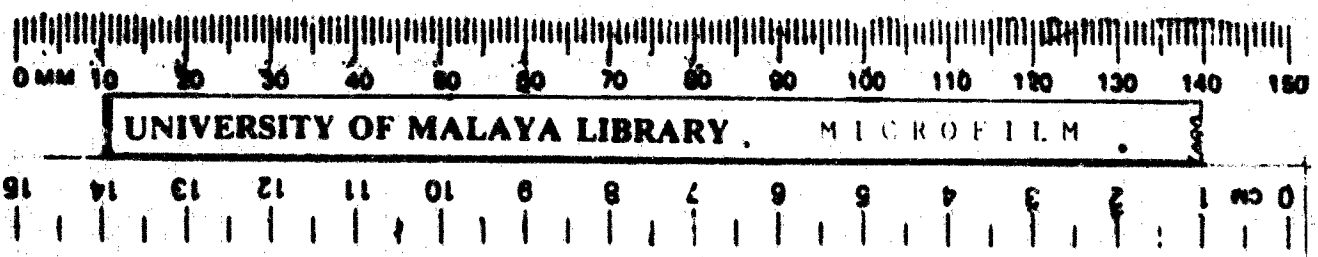


MULA

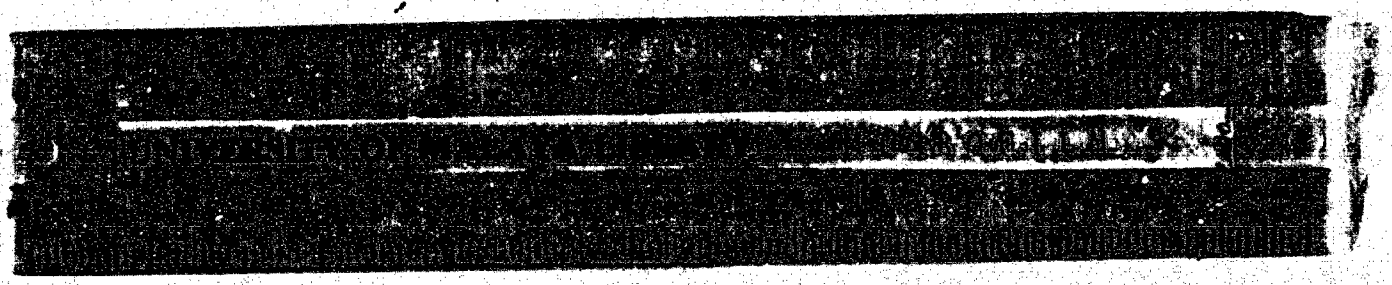
OPEN MARKET OPERATIONS

AS AN

INSTRUMENT OF CREDIT CONTROL

by

WONG PAK SUM



A Graduation Exercise presented to the University of Malaya in part fulfilment towards the Degree of Bachelor of Arts with Honours in Economics.

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INTRODUCTION

The Nature of the Problem Stated

One of the most important development in monetary theory and banking practice is the emergence of central banks. The first central bank in the world is the Bank of England which was established in 1694 though it did not carry out the work of a central bank until well into the second half of the 19th century. In 1800 the Bank of France was set up as France's central bank. In the United States, the year 1913 saw the establishment of the Federal Reserve System as her central bank. Even in the relatively backward part of the world in South and East Asia, central banks are not uncommon. To mention a few, we have the Reserve Bank of India established in 1935 as the Central Bank of India, while in Malaya, the Bank Negara was established as her central bank by the Central Bank of Malaya Ordinance, 1958, and came into operation on January 26, 1959. And with the successful formation of Malaysia the activities of the Bank have been extended to cover the other states (namely, Singapore, Sarawak and Sabah), and consequently the name "Bank Negara Malaya" was changed to "Bank Negara Malaysia".

All these central banks, and others not mentioned, have one thing in common. That is, they are responsible for carrying out the monetary policy of their respective country in conjunction with some governmental department such as the Treasury. To carry out such a task a central bank must be in a position to regulate the money supply in the economy. The money supply is usually, if not always, made up of bank deposits, bank notes and coins. For our purpose here we shall concern ourselves with bank deposits. This is for two good reasons. In the first place, in nearly every country the issue of bank notes and coins is the sole prerogative of the central bank but the 'creation' of bank deposits or credit is not. Indeed, bank deposits are mostly created by commercial banks. Secondly, bank deposits are playing an ever-increasing important role in economic transactions especially where large sums of money are involved, and in an advanced economy the greater part of the money used consists of bank deposits. In Great Britain, for example, they form about 80 per cent of the total money supply[1].

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[1] J.L.Hanson: "Monetary Theory and Practice", 2nd ed., (MacDonald and Evans, Ltd.,) p.30.

CHAPTER I

INTRODUCTION

The Nature of the Problem Stated

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[1] J.L.Hanson: "Monetary Theory and Practice", 2nd ed., (MacDonald and Evans, Ltd.,) p.30.

The reason why bank deposits are considered as money, and thus constitute part of the money supply of an economy is because they have exactly the same qualities as bank notes or coins in that they can be transferred from one person to another indefinitely, in payment for goods or services or in settlement of debts or obligations of any kind. Indeed, some writers[1] refer to bank deposits as "Bank Money".

The origins of bank deposits are well known to students of commercial banking. First, they may arise because some people deposit their money into commercial banks. Secondly, they may arise simply because commercial banks 'create' them through various forms of loan extensions.[2]

Of the two ways through which bank deposits can arise we are more concerned with the second in this paper. The reason is that as long as bank deposits arise because some of us put cash into commercial banks they have no effect on the total supply of money since they merely take the place of our cash. In any case, only a very small portion of bank deposits is the result of customers depositing cash at a commercial bank. Most bank deposits are in fact created by commercial banks themselves.

The latter fact raises a very significant point in the context of this paper. Earlier, we have said that to be able to carry out the monetary policy of an economy a central bank must be in a position to control the money supply. But as we have just seen commercial banks can create deposits; and bank deposits are part of this money supply. Thus the supply of money is not solely determined by central banks but also, in effect, by commercial banks. If this is the case a central bank could hardly be expected to carry out the monetary policy in a way beneficial to the country since central banks and commercial banks may sometimes work at cross-purposes.[3] Consequently, if a central bank desires that the management of the monetary policy is rightly its prerogative then something must be done to see to it that this privilege of commercial banks to create deposits is not abused. In other words, this power of credit or deposit creation of commercial banks must be brought under the control of central banks.

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[1] For example, R.S. Sayers in his "Modern Banking". 5th ed., (Oxford. 1960), p.8.

[2] See J.L. Hanson: "A Textbook of Economics", 3rd ed., (MacDonald and Evans, Ltd.,) p.305

[3] This is easily understood if we realize that a commercial bank is primarily a profit-making concern while a central bank is not.

The Purpose of this Paper

The basis of commercial banks' power to create deposits is to be found in the reserves[1] they hold to meet possible withdrawals by customers. One of the most important principles of commercial banking is the ability of commercial banks to meet depositors' demand for cash at all time. This is of paramount importance if public confidence is to be maintained. Therefore, if, for any reason, a commercial bank finds that its reserves have fallen it will not give any more loans (and thus creating no more deposits) and will also recall loans it made earlier to borrowers (and this will reduce the existing volume of deposits). Thus one way in which a central bank can exercise its control over commercial banks, a control aimed at regulating their activities in deposit creation, is by influencing the amount of reserves they hold.

Throughout the evolution of the 'Art of Central Banking' various techniques have been developed to help central banks influence commercial banks' reserves. One such technique is known as "open market operations". Therefore, the purpose of this paper is to examine in considerable details the nature and application of open market operations as an instrument of credit or deposit control. In other words we shall examine it not only as an instrument through which a central bank can prevent commercial banks from creating too much deposits but also as an instrument through which a central bank can encourage commercial banks to create more deposits by extending more loans to eligible borrowers.

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[1] Conventionally, they include cash commercial banks hold with themselves and with the central bank as in Great Britain.

CHAPTER II

MODUS OPERANDI OF OPEN MARKET OPERATIONS

Some Definitions and Assumptions

In this chapter we shall give an account of the modus operandi of open market operations. However, before doing so it is imperative to make some definitions and assumptions.

The terms "monetary policy" and "open market operations" as used in the context of this paper need to be defined. Various writers on monetary economics have defined "monetary policy" in various ways. Each writer defines the term to suit his purpose[1].

In this paper we shall define "monetary policy" as any plan of action that is concerned with the determination of how much money there should be in circulation in the country at a given time and then taking measures to increase or decrease its volume as the situation deems it necessary. The term "open market operations" is used here to signify those transactions in which the central bank sells or purchases securities on its own initiative in the open market.

For the sake of convenience, we shall make some simplifying assumptions. Open market operations can be (and have been) used for various aims[2], such as helping the government to finance its expenditure, influencing the level and structure of interest rates and so on. But for our purpose here we shall assume that open market operations are primarily conducted to absorb or release commercial banks' reserves, and thus forcing them to recall and curtail loans or enabling them to make loans if they so desire; in other words we shall assume that open market operations are conducted only to control the volume of bank deposits in the country.

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[1] See Paul Einzig: "How Money is Managed", (Penguin - 1953), ch.3

[2] See Joseph Aschheim: "Technique of Monetary Control", (Johns Hopkins - 1961), p.5
A.C.L.Day: "Outline of Monetary Economics", (Oxford - 1960), p.135.

Regarding the environment in which open market operations take place we may postulate that we are dealing with a closed economy in which there is a central bank and only one commercial bank[1]. To maintain depositors as well as public confidence in its solvency, the commercial bank holds cash reserves amounting to 8 per cent of total deposits. These reserves may be so distributed that part of these is in its premises and part with the central bank[2]. But put together they form 8 per cent of total deposits. In other words, the commercial bank keeps a cash ratio of 8 per cent to meet possible withdrawals of cash by its customers.

A Sale of Securities by Central Bank:

A Theoretical Account

If the existing volume of economic transactions in the economy is too small to warrant the prevailing amount of purchasing power in circulation[3], and consequently reflecting undesirable inflationary pressures in the form of rising prices and incomes, the central bank can remedy the situation by coming into the open market or the stock exchange to sell securities. These securities may be government-guaranteed or government securities such as Treasury Bills. This desire to sell securities on the part of the central bank will be made known throughout the market. This sale may be effected through a department of its own specially set up for this purpose or an appointed agent in the market. Private security dealers acting as individuals or as a syndicate will come into the market to take up these securities for themselves or on behalf of some big business companies or insurance companies or people with the necessary money to spare. If such buyers have accounts with the commercial bank, as they invariably do, they will pay for these securities with cheques drawn on the commercial bank. The amount shown on these cheques will represent the market value of the securities. When the central bank receives the cheques as payments for its securities it will accordingly decrease the reserves[4], held by the commercial bank with it by the amount shown on the cheques.

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[1] This is to simplify our analysis. But the following discussion equally applies even if we have more than one commercial bank.

[2] The holding of some reserves with the central bank by a commercial bank is very often a legal necessity nowadays.

[3] A situation which is largely due to the fact that the commercial bank has given too much loans to borrowers.

[4] ~~This is because they can be withdrawn whenever necessary.~~ They are called as 'Bankers' Deposits'

However, the commercial bank considers its reserve with the central bank as part of its ratio of x per cent[1]. Therefore, such a depletion in its reserves with the central bank as a result of the sale of securities by the central bank will inevitably lower its cash ratio to below x per cent. The commercial bank will view this development with grave concern because there is every possibility that it may not be able to meet its obligations to its customers. As a consequence, the commercial bank will lose the confidence of the public in its ability to pay on demand. This will lead to a 'run on the bank' and ultimate closure. To avoid all these dire consequences the commercial bank must make good any serious depletion in its cash ratio. It must take steps to restore its cash ratio to its former 'healthy level' that is, x per cent. Acting rationally, the commercial bank will turn over (not, if not all, potential borrowers and reduce loans to a minimum. However, this is not enough; it must be actively seeking means restoring its cash ratio to its former level. The commercial bank will recall loans, and thereby reducing deposits, by about 12½ times the amount decreased in its reserves. The value of bank deposits will accordingly be reduced. Thus in this way the central bank can reduce the supply of money in the country.

Mathematical Example

A simplified mathematical example will illustrate the technique of open market operations in which the central bank caters the market to sell securities. In table one column A[2] we show the balance sheet of the central bank and that of the commercial bank. This is the original position of both banks before the sale of securities takes place. In the central bank bankers' deposits amount to ₦40 million while deposits at the commercial bank stands at ₦1,000 million. The ₦40 million in the form of bankers' deposits in the central bank belong to the commercial bank since we assume that we have only one such bank to consider. This is shown on the assets side of the balance sheet of the commercial bank against the item "cash at central bank".

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[1]This is because they can be withdrawn whenever necessary.

[2]All columns are shown horizontally.

How the central bank comes into the market to sell $10 million worth of securities. Those securities are then taken up by members of the public who are customers of the commercial bank. Column B shows the initial effect. In the balance sheet of the central bank on the assets side the value of the item "other assets" drops by $10 million from $60 million to 50 million because of the giving up of ownership of $10 million worth of securities. This sale of securities brings in cheques drawn on the commercial bank worth $10 million. Therefore, on the liabilities side the value of banker's deposits which in effect, shows how much the central bank owes the commercial bank falls from $40 million to $30 million, a fall corresponding to the amount shown on the cheques. Taking a look at the balance sheet of the commercial bank we find that the sum of $1,000 million shown against the item "deposits" falls to $990 million. This is because its customers have withdrawn $10 million for the securities. Correspondingly, its reserves at the central bank falls from $40 million to $30 million. This is shown on the commercial bank's balance sheet on the assets side. The volume of deposits created by the commercial bank thus decreases by $10 million. However this is not meant to be the end of the process.

At this stage it is necessary for us to examine the commercial bank's cash ratio. Before the sale of securities the commercial bank keeps a cash ratio of 4 per cent, that is $40 million in cash reserves against $1,000 million in deposits. This gives it 'just enough cover' to meet what it considers the 'normal' demand for cash. But what happens after the sale of securities is that its cash reserves drop from $60 million to 70 million and deposits from 1,000 million to $990 million. This means that its cash ratio falls from 6 per cent to 7 per cent. Something must be done before it is too late. The fall of only $10 million in deposits is not enough if it wants to maintain its cash ratio at the normal 'safety' level of 8 per cent. Deposits must be drastically reduced.

Column C shows the ultimate effect of a sale of securities by the central bank. The commercial bank may choose to restore its former proportion of 'cash in hand' to "cash at central bank". It can do this by paying in $5 million to the central bank. But this does not seriously alter the situation. The commercial bank will call in loans made earlier to the extent that deposits are thereby reduced from $990 million to $875 million. This decrease in loans extended to customers is, of course, equal to the decrease in the value of "other assets" from $920 million to $805 million since a reduction in advances simply means a reduction in assets. Thus by decreasing its deposits further from $990 million to $875 million its normal cash ratio of 8 per cent is restored again with cash balances of $70 million against deposits of $875 million.

Earlier we came to the point that if there is any reduction in its cash reserves the commercial bank must reduce its deposits by 12½ times[1]. This point is very important. We will illustrate. In our example above, if the commercial bank - Il by $10 million ($40 million - $30 million) its deposits fall by $125 million ($50 million - those $375 million)

Therefore, we can clearly see that if the central bank feels that there is too much money in circulation the commercial bank is forced to reduce it by reducing its deposits through open market operations by selling securities in the open market.

A purchase of securities by central bank

If the central bank, by selling securities in the open market, can reduce the reserves the commercial bank has with it, and thus compel it to reduce the volume of bank's operation by buying securities the volume of deposits it has already created. In other words, the technique of open market operations in influencing the supply of money in the country can be used in both ways; it can help the central bank to decrease as well as increase the money supply. We have shown how it can be used to decrease it; we shall now show how it can be used to increase it.

A theoretical account

If the economy is expanding and there is an urgent need for the existing supply of money to be increased, the central bank can come into the market to buy securities. The central bank will pay for these securities with cheques drawn on itself to the amount as represented by the value of these securities. Invariably these cheques will find their way into the possession of the commercial bank. They will then be presented to the central bank for payment. When the central bank gets hold of these cheques it must honour them. Accordingly, the central bank will increase the reserves the commercial bank already has with it by the amount shown on these cheques. With such an increase in its reserves with the central bank but with no decrease in its reserves within its own premises, its ratio of cash reserves to deposits must inevitably be higher than before. Assuming, as we do, that the commercial bank keeps a cash ratio of 8 per cent then its present cash ratio must be above 8 per cent, that is, above what it considers as the 'safety-level'. In other words, this means that it has more reserves than necessary to meet 'normal' demand from its customers for cash.

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[1] Assuming that it takes to maintain its 8 per cent. cash ratio.

TABLE I

CASE A - THE EFFECT OF A SALE OF SECURITIES BY THE CENTRAL BANK

Central Bank			Commercial Bank		
Liabilities		Assets	Liabilities		Assets
Deposits-40		Notes 30	Deposits-1,000		Cash in hand 40
Liabilities-50		Other assets - 60	1,000		Cash at central bank 40
90		90			Other assets 920
					1,000
Initial Effect					
Liabilities		Assets	**Liabilities**		**Assets**
Deposits-30		Notes 30	Deposits-990		Cash in hand 40
Liabilities-50		Other assets - 50	990		Cash at central bank 30
80		80			Other assets 920
					990
Ultimate Effect					
Liabilities		Assets	**Liabilities**		**Assets**
Deposits-35		Notes 35	Deposits-875		Cash in hand 35
Liabilities-50		Other assets - 50	875		Cash at central bank 35
85		85			Other assets 805
					875

Figures are in terms of million dollars.

granted that loans and securities are the most liquid item in the commercial bank's sheet but as long as they lie idle in its premises they earn no income for the commercial bank. In effect, this means that the commercial bank is not maximizing profits though this is possible, but the commercial bank is ultimately a profit-seeking concern and it has its shareholders to answer to. Therefore, under such circumstances, the commercial bank will be forced more or less to make a fuller use of its resources; the increase in its reserves will be used as a basis for creating more deposits through loan extensions. This it will, of course, do since "loans to customers are the most profitable of bank assets".[1] Again, as before but in the opposite direction, deposits will be increased by many times the increase in its reserves. With this its cash ratio will fall back to its former level of 8 per cent.

Therefore, it is not too difficult for us to see how, through open market purchases, the central bank can bring about an increase in the money supply. Indeed, in an advanced economy if the central bank wants to increase the money supply it does not print more paper money but rather it takes steps to enable commercial banks to increase the existing volume of bank deposits.

A Mathematical Example

In Table 2 we trace the process and effect of a purchase of securities by the central bank in the market in its effort to encourage an increase in the volume of deposits in the country. In column 1 we have the original position of the two banks before the central bank comes into the open market to buy up some securities.

We assume that the central bank buys $10 million worth of securities. Column 2 shows the initial effect of this purchase. On the assets side of the central bank's balance sheet the sum of $60 million shown against the item 'other assets' increases to $70 million this is the result of acquiring ownership to securities totalling $10 million from the market. But in so doing, the central bank has drawn cheques to that value on itself to pay for these securities, and the cheques are now in the hands of the commercial bank's customers. The latter will then deposit their cheques with their bank. This has the effect of increasing the value of deposits of the commercial bank from $1,000 million to $1,010 million. Since these cheques are drawn on the central bank the commercial bank can present them to it from payment. Consequently, the commercial bank's reserves at the central bank will rise from $40 million to $50 million, a rise of $10 million, which is, of course, equal to the amount shown on the cheques.

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[1] J.L.Hanson: "Monetary Theory & Practice", 2nd ed., (Macdonald & Evans, Ltd.,) p.45

correspondingly [illegible] on the liabilities side of the central bank's balance sheet [illegible] by the right amount [illegible] million to 30 million. [illegible] balance sheet of both banks is now [illegible]. This is to [illegible] the ratio of the central bank's claims to the commercial bank [illegible] 30 million in cash reserves and [illegible], 10 million in deposits. Therefore, the cash ratio is [illegible] cent. This, however, is now equal to the [illegible] of the [illegible]. This means the commercial bank is not [illegible] all of its resources, and that not maximum profits. It is not likely that [illegible] will be carried on the [illegible] of the commercial bank to make better use of its resources.

[illegible] the liabilities side. The commercial bank will use the central bank to transfer [illegible] million from its reserves with the central bank to [illegible], and so [illegible] increase the value of deposits from 1,10 million to 1,[illegible] million through [illegible]. The increase in deposits is equal to the increase in the value of 'other assets' from [illegible] million to 1,035 million. With this the commercial bank's cash ratio is thus finally restored to 6 per cent with cash reserves [illegible] at [illegible] million and deposits at 1,125 million.

Therefore, in this [illegible], we see that as a result of the purchase of 10 million worth of securities by the central bank, and thereby increasing the reserves of the commercial bank by that amount, bank deposits increase by 12½ times, that is from an initial sum of $1,000 million to an ultimate sum of $1,125 million.

Some Remarks

To sum up this chapter some remarks may be made. It is true that commercial banks can influence the supply of money in an economy because of their ability to create bank deposits. One may then conclude from this that since this is so the central bank will not be the sole institution that determines the money supply, and thus cannot possibly be expected to carry out the monetary policy of the country effectively in a manner beneficial to the economy. The situation seems hopeless; but not quite so. This is because, as we have explained, by selling or buying securities in the open market the central bank can actually control the money supply. This is achieved because transactions resulted from such activities on commercial banks' reserves which form the basis of their ability to create deposits[1]. This is the effect of open market operations on which most stress has been laid by earlier writers. The Keynesian discussion on the modus operandi of open market operations in the second volume of the 'Treatise' on Money' runs entirely along the influences of such operations on the cash reserves of commercial banks.

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[1] This is easier said than done. Some limitations are discussed in chapter V.

TABLE 2

CASE B - THE EFFECT OF A PURCHASE OF SECURITY BY CENTRAL BANK

Central Bank			Commercial Bank		
ities	Assets		Liabilities	Assets	
's deposits-40[a]	Notes	30	Deposits-1,000	Cash in hand	40
liabilities-50	Other assets-60		1,000	Cash at central bank	40
90		90		Other assets	920
					1,000
Initial Effect					
ities	Assets		Liabilities	Assets	
r's deposits-50	Notes	30	Deposits-1,000	Cash in hand	40
liabilities-50	Other assets-70		1,000	Cash at central bank	50
100		100		Other assets	920
					1,010
Ultimate Effect					
lities	Assets		Liabilities	Assets	
cr's deposits-45	Notes	25	Deposits-1,125	Cash in hand	45
r liabilities-50	Other assets	70	1,125	Cash at central bank	45
95		95		Other assets	1,035
					1,125

[a]All figures are in terms of million dollars.

CHAPTER III

EFFICACY OF OPEN MARKET OPERATIONS

In the absence of a complete control over the money supply the effectiveness of open market policy as an instrument of monetary policy is of paramount importance. However, what determines its effectiveness? In this chapter we propose to seek an answer to this question.

Requirements of an Effective Policy

If the central bank is to conduct meaningful open market operations, a legal and institutional setting is essential. Legally, the central bank must have the necessary statutory authority to carry out such activities. In particular, the sales and purchases of government securities by the central bank must be circumscribed by legislation as to the amounts, the ways in which such transactions may be effected and the maturity of the securities that may be transacted. Limits on central bank holdings of government securities, whether acquired in the market or directly from the government, should be stipulated in absolute amounts. All such legislative measures will ensure the smooth conduct of open market operations and lessen or prevent any abuses that may arise.

However, a legal setting by itself is not sufficient to enable a central bank to carry out an effective open market policy. What is more important, and which most underdeveloped countries lack, is a suitable institutional framework. Institutionally, certain conditions must be present. Obviously, open market operations cannot take place in a vacuum. Therefore in the first place, the presence of broad and active money and capital markets is highly desirable. Such financial markets enable the central bank to sell or buy government as well as other eligible securities in appropriate amounts to exert the desired effect on commercial bank's reserves. Moreover, they ensure that the central bank's efforts to sell or buy securities on a considerable scale in order to affect the cash reserves of commercial banks would not lead to serious fluctuations in security prices. In the absence of such financial markets open market operations will be extremely difficult: buyers(in the case when the central bank sells securities) and sellers (in the case when the central bank buys securities) will be very hard to locate, and even if such transactions are possible they will lead to wide price fluctuations.

Secondly, before the central bank can indulge in open market operations there must be obviously to something to operate with. When the central bank desires a period of monetary contraction, it must have a sufficient volume of securities to sell. Conversely, when it wants a period of monetary expansion the market holding of securities eligible for central bank purchases should be large.

Thirdly, commercial banks should follow a policy in which they maintain more or less a fixed ratio between their cash reserves and their deposit liabilities. This means that they should extend loans liberally when their actual balances rise above the ratio and contract loans in the opposite case. The connection between this condition and the first condition is quite clear. Before commercial banks can extend loans (and subsequently contract them) there must be a well-developed money market. In the absence of a developed money market commercial banks extend to operate with ample excessive reserves, and consequently their cash ratio tends to fluctuate widely. This is quite obvious since they have no other ready way to adjust their positions. Under such circumstances, central bank securities sales, for example, may merely reduce their excessive reserves and may thus fail to restrict the availability of credit or loans from commercial banks.

Lastly, after a central bank securities sale commercial banks should refrain from rediscounting bonds or obtaining advances from the central bank on the security of bonds or bills. This is because it may enable them to replenish their cash balances depleted by central bank action. This restraint on the part of commercial banks in this direction may be either because of the existence of a convention to that effect or because of their unwillingness to remain indebted to the central bank for any length of time. If these conditions, both legal and institutional, are present to the desired extent, open market operations can be a very orderly and powerful instrument of deposit control.

The Efficacy of Open Market Operations

Given the above conditions, what can we say about the efficacy of open market operations? A good deal of controversy has raged over the question of how far the central bank can actually regulate the volume of deposits through open market operations. Theoretically, it is claimed that by selling securities, the central bank can actually reduce the prevailing volume of deposits and by buying securities the central bank can extend the volume of deposits. Accordingly, to carry the argument further, the central bank can so contract or expand the volume of deposits, and so manipulate the level of interest rates, that it can achieve almost any desired effect on economic conditions. However, in practice all is not that simple.

On the question of deposit contraction it is generally agreed that the central bank can contract deposits to any degree it wishes. With a contraction in their cash holdings, commercial banks must reduce total deposits and they have no choice whatever in the matter. Granted that if commercial banks have ample excessive reserves they could postpone such a reduction. However, if the central bank is really seriously considering a reduction in the volume of deposits, it would sell securities on such a scale that their ample excessive reserves were completely wiped out. Again, granted that, to some extent, commercial banks could postpone such a reduction by rediscounting bills or borrowing from the central bank (since conventionally the latter is obliged to act as 'lender of last resort') to replace the cash thus lost. But then obviously this could go on only so long as the central bank was willing to see a policy of deposit contraction nullified in this way. Presumably, the central bank will set an interest rate high enough to be a 'penalty rate' to discourage bank borrowings or it may set a specific ceiling on such commercial bank borrowings. As regards the rediscounting of bills the central bank can charge a higher rediscount rate for rediscounting bills. The point is that in the final analysis the central bank can in effect contract deposits to any degree it wishes.

In expanding the volume of deposits, however, the efficacy of open market operations is very doubtful. Indeed, when the central bank buys securities there is no guarantee that this will lead to an increase in commercial banks' cash reserves let alone an increase in their total deposits. Commercial banks may utilize the cash to repay their debts to the central bank or to cover rising operating expenses. In either case their reserves may not increase. Moreover, when the central bank is trying to increase the cash resources of commercial banks by purchasing securities, the public may withdraw cash from commercial banks in panic with a view to, what Lord Keynes would call, hoarding. In that event the reserves of commercial banks may not increase. This, for instance, happened in the United States back in 1932 when the Federal Reserve Board's attempts to increase the cash basis of commercial banks were neutralized to some extent by large withdrawals of cash made by the public in fear of an epidemic of bank failures. Even if the central bank succeeds in increasing the cash reserves of commercial banks, it does not necessary follow that there will be an increase in total deposits. Whether or not there will be an expansion in deposits will depend on two factors. First, it depends on the willingness of commercial banks to create deposits. If commercial banks considered the economic and political outlook to be so bleak that they were unwilling to grant any further loans, the increased cash reserves would simply not be used as the basis for a further expansion of deposits. Secondly, it also depends on the availability of a sufficient number of acceptable persons who are willing to come forward to borrow from commercial banks.

If very few people consider the future optimistic enough to warrant their resources to commercial bank credit, then there would hardly be any increase in bank deposits. Faced by a similar situation in the 1930s, commercial banks in Great Britain unable to increase their advances, enlarged their investments. Under such circumstances, the efficacy of open market operations in deposit expansion is not at all certain.

Thus we may say that open market policy is generally more effective in contracting than in expanding deposits[1].

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[1] See Leland J.Pritchard: 'Money and Banking', 2nd edt., (Houghton Mifflin - 1964), p.350.
J.Aschheim, op. cit., p.54.

CHAPTER IV

OPEN MARKET OPERATIONS AS A FULL-FLEDGED DEPOSIT POLICY INSTRUMENT

A Suitable Framework?

The prerequisities for an effective open market policy are really very stringent, and this explains, as we shall see, why the nature, extent and influence of such operations vary widely from country to country. It is only in countries such as the United States, Canada, France and Great Britain does the institutional framework permit the employment of open market operations as a full-fledged deposit policy instrument.

For one thing, such countries do possess well-developed money and capital markets which have a great variety of securities for sale or purchase. Moreover, commercial banks in these countries do not as a rule allow their cash ratio to fluctuate to any appreciable extent. Excessive cash reserves, for example, are rather uncommon because such excesses mean that commercial banks are tying up assets in an unprofitable manner. And since they have such well-developed financial markets[1] such excesses can easily be diverted into profitable channels. For instance, in Great Britain commercial banks often extend loans to discount houses and bill brokers, and in this way they earn an income[2]. Finally commercial banks generally do not turn to the central bank for financial assistance. For example, this is a conventional practice in Great Britain. However, even if commercial banks turn to the central bank for loans or rediscounting of bonds, measures can be taken to prevent them from taking too much advantages of the central bank in its capacity as the 'lender of last resort'. 'Penalty rates' can be charged to reduce the incentive to borrow from the central bank by commercial banks as in Canada, or else such borrowings can be limited by formal or informal discount ceilings as in France.

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[1] For an account of British financial markets see J. L. Hanson, op. cit., chapter V.

[2] See Crowther: 'An Outline of Money'. (Nelson-1963), pp. 67.72

In Canada, not only is the discount rate a penalty rate but the central bank has instituted a special arrangement whereby the penalty effect of the discount rate can actually be increased. In the first place, each advance of the central bank to the commercial bank is made for a fixed period of seven days. Secondly, the central bank charges rates above its basic rate according to both the amount and the duration of the borrowing. Thus, higher rates are charged on a second advance to one bank in any calendar month, or on a renewal of an advance, or an advance in excess of a certain amount specified for each bank.

Hence, under such circumstances, it is easy for us to understand why in such countries open market operations have been freely employed as an instrument of central bank policy. For the remaining pages of this chapter we shall give an account of open market policy in two such countries, namely, Great Britain and the United States. It is important for us to note right from the outset that we shall be emphasizing on institutional questions and problems more than anything else.

Open Market Policy in Great Britain.

Originated during the last century but developed more fully in the 1920s and 1930s, open market policy has become one of the most important tools of monetary management in Great Britain to-day. By selling or buying securities in the open market the Bank of England can reduce or increase bank reserves, and thereby also reducing Bank deposits or creating an environment where deposits can be increased.

In explaining open market policy as practiced in Great Britain, three points are of interest to us. In the first place, the Bank of England which is responsible for open market policy never deals directly with the market but rather through a firm of discount brokers whose representative becomes its agent. The latter is known in the market as the Special Buyer. Secondly, the Bank is generally in favour of confining its open market operations to short-term securities, although on rare occasions it intervenes also in the medium and long-term markets, as in the 1920s[1]. Finally, such activities of the bank may be carried out either by means of the 'open back door' procedure or at the 'front door'. The difference is that in the former case the prevailing market rate will not be disturbed while in the latter case such activities will 'cause a movement in short-interest rates'[2]. While it is usual for the bank to conduct such transactions at the back door, the possibility of doing business at the front door is always there.

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[1] See A. C. L. Day, op. cit., p.183.

[2] R. S. Sayers, op. cit., p.106.

If the bank deems that an expansive monetary policy is necessary its operator who is always in contact with the market will make it known (at the back door) that the Bank is willing to buy securities at market rates. This means that when private dealers representing, say, insurance companies, bring in the amount of securities, mostly Treasury Bills, it wants to buy the Bank will supply them with thenecessary cash without imposing any penalty on them in any way. However, the Bank's operator will take the bills only at the rate considered by the Bank to represent 'the market level'. Moreover, it is common knowledge that the Bank will usually not purchase any bills that still have a long time to run until maturity, and that the average maturity of a package of bills that it will buy must be comparatively short, say, within one month. After satisfying this preliminary, the Bank will pay with cheques drawn on itself. Invariably, these cheques will find their way into the hands of commercial banks. The latter will then present these cheques for payment. The Bank does not pay cash to them but rather writes up their deposits they hold with it by the amount represented by the cheques. Consequently, there will be an appreciable increase in the cash reserves of commercial banks and this increase can be used as a basis for further deposit creation. As we have mentioned earlier, open market policy is a double-edge sword. If the Bank desires a restrictive monetary policy, bills will be sold. This will set up contractionary forcesand will lead to a multiple cut in bank deposits. This converse process can be shown along the lines described in an earlier chapter.[1]

Such operations by the Bank of England in the open market have indeed a very profound and direct influence on the market's monetary conditions. In fact, if there is any country where open market operations have been most successfully carried out to control the availability of credit it is in Great Britain. The reasons why such operations have been described as perfect are varied.

It is a well-known fact that in Great Britain the institutional conditions for effective open market operations have for a long time been present. The Bank of England usually has an ample securities portfolio for its operations, and its sales and purchases are known to be supplemented by the operations of the large government funds.

The London money and capital markets are among the best developed in the world. In addition to a considerable number of bill brokers and acceptance houses, the London money market consists of 12 discount houses that buy, hold and sell short-term marketable securities - treasury and commercial bills and government bonds with less than five years to maturity.

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[1] Refer chapter II

ler capital market consists of financial institutions like commercial banks, investment trusts, insurance companies, pension funds and building societies. Commercial banks and insurance companies have been known to invest in government stock. For instance, in 1961 the British Insurance Companies together held well over £1,200 million of government stock, while commercial banks held slightly more £1,312 million[1]. The London Stock Exchange also plays a major role in making open market operations effective. Its importance is shown by the fact that more than 9,000 different securities are officially quoted here. Their nominal value on March 31, 1964 was nearly £38,000,000 (market value £60,000,000,000). Even Wall Street, the financial capital of the United States, cannot boast of a larger dealing in stocks[2]. From the viewpoint of open market policy, the presence of such well-developed and broad financial markets is of great importance. Their presence means that securities will be sold and bought with relative ease and in a comparatively short time. Moreover, the broadness of such markets ensure that such operations by the Bank will not lead to any violent fluctuations in security prices (and interest rates). This stability in interest rates is vitally important to the Treasury (and ~~instereat rates~~). ~~This stability in interest rates is vitally important to the Treasury~~ (and hence British taxpayers) especially when it has a large National Debt to manage.

Another factor which is responsible for the success of open market policy in Great Britain is the maintainance of a 'known' cash ratio by commercial banks which is constantly being kept at 8 per cent. This is not a legal cash ratio; but rather it has been conventionally fixed at that level. This means that they grant loans freely when their reserves rise above that level and recall loans when their reserves fall below it. This maintainance of a 'known' cash ratio assists the Bank greatly in deciding how much securities to buy or sell when it wants an increase or a decrease in bank deposits.

Regarding the request for central bank credit it is not the normal practice of British commercial banks to seek loans directly from the Bank of England, nor do they normally obtain assistance for themselves by selling securities of any sort to it in an effort to replenish any depletion in their reserves as a result of a Bank's sale of securities. There are three possible explanations for this shyness to seek central bank credit. This may be a conventional banking practice: this convention dates back from the time when the Bank was looked upon as a rival by other banks, and naturally these banks could not think of borrowing from a rival. Secondly, to borrow from the bank may be thought of as a sign of weakness by the public, and consequently public confidence may be undermined. Lastly, to get loans from the Bank may involve a financial loss to commercial banks especially when the Bank closes its back door and insists that commercial banks get these loans at the front door where a penal rate can be charged.

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[1] J. L. Hanson, op. cit., p. 7

[2] See Banking and Finance Supplement, Sunday Times, March 28, 1965 p.9

In any case whatever may be the correct explanation, this practice of not borrowing directly from the central bank plays a significant part in making open market policy effective in Great Britain.[1] As regards obtaining central bank credit by means of rediscounting bills a British commercial bank 'never parts with a commercial bill it has once taken'[2]. The same practice used to apply equally to Treasury Bills but after 1936 this is no longer the case. Between the outbreak of the Second World War and the end of 1951, the Bank very often provided cash to the banking system of buying Treasury Bills from commercial banks. The fear is that by constantly presenting Treasury Bills to the bank for rediscounting, they may replenish any depletion in their reserves because of the Bank's sale of securities. The effectiveness of open market policy would in that event be seriously undermined. However, we need not exaggerate this fear. This is for two reasons, First, the Bank of England can charge the commercial banks a higher Bank Rate for rediscounting their 'papers' to restrain them from taking too much advantage of this privilege, Secondly, in addition to keeping a cash ratio of 8 per cent, a British commercial bank has to maintain a second liquidity rule. It must maintain its more liquid assets at 30 per cent.[3] of total deposits. These more liquid assets include its holding of Treasury Bills. Therefore, apparently it cannot go on rediscounting bills at the Bank without seriously affecting this 30 per cent liquidity rule.

Thus taking every factor into consideration it is not surprising that open market policy is an effective instrument in Great Britain for exercising a stabilising influence in the economy and consequently has been used as a full-fledge deposit policy instrument for a long time.

Open Market Policy in the United States.

The development of open market policy as a full-fledged instrument of deposits control in the United States has a very humble beginning though throughout history it has been extremely used as such[4]. Originally open market policy was not seriously thought of as an important instrument of deposit control. From 1914 to 1922 the Reserve Banks bought government securities in the open market mainly because of the necessity to provide themselves with earning assets so that they would be in a position to pay operating expenses as well as dividends to the stockholding member banks. On various occasions during the next few years, open market operations were employed as a weapon of monetary management.

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[1] Instead, when they need money they recall loans made earlier to discount houses and let the latter approach the Bank for credit.

[2] R. S. Sayers, op. cit., p.15

[3] See J. L. Hanson op. cit.; pg.36

[4] See L. J. Pritchard: 'Money and Banking', 2nd ed., (Houghton - Mifflin - 1964), pp. 336-340 and chapter 19.

however, these activities were not independently undertaken; they were carried out to make the rediscount rate effective by altering the cash balance of the member banks thus forcing them to rediscount or enabling them to repay their indebtness to the Reserve Banks. It was only after the stock market crash that the Federal Reserve System[1] engaged in open market operations as an independent instrument of monetary policy. Soon, open market operations were considered as an effective means of influencing the size of the money supply and not merely as an auxiliary weapon designed to make rediscount rate changes effective. Since the open market operations have supplanted, and not simply supplemented, rediscount rate as an instrument to control the supply of money.

Since the structure of the Federal Reserve System is usually complicated, one interesting question regarding open market policy is this. Who is responsible for the formulation of policy decisions concerning open market operations? Before 1935 this problem gave rise to serious difficulties which resulted from a lack of co-ordination in such activities. But after the passing of the Banking Act of 1935 the open market operations of the Federal Reserve System are completely centralized. The control of those operations is placed in the hands of the Federal Open Market Committee[2] which meets in Washington every three weeks, or more often if necessary, to review the National business and credit situation in the economy. This committee has the complete and final responsibility in deciding when and how much of securities to sell or buy in the open market and under what conditions. Its decisions are final and the Reserve Banks are required by law to carry them out.

Sales and Purchases of securities for the Federal Open Market Committee are effected in the name of the System. Open Market Account, participations in which are compulsory and allocated among the Reserve Banks in accordance with the ratio each Reserve Banks' total assets to the total assets of all Reserve Banks combined. All transactions are executed by the securities Department, often referred to as the 'Trading Desk' at the Federal Reserve Bank of New York under the Supervision of the Manager of the Account who is an Officer of the latter bank.

The ultimate effect of open market operations on monetary conditions in the country by the Federal Reserve System through its various Reserve Banks will be very much the same as that in Great Britain; a purchase of securities by the System will augment the cash reserves of member banks which can be used as a basis to create more deposits and a sale of securities will reduce their cash reserves and thus their deposits.

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[1] For a description of the structure of the Federal Reserve System, see ibid., chapter 15.

[2] This committee is made up of the seven members of the Board of Governors, who are appointed by the President of the United States and approved by the Senate, and five representatives of the Federal Reserve Banks. The latter are elected annually by the Board of Directors of the various Reserve Banks and they must either be president or vice-presidents of Reserve Banks.

What types of securities may the Reserve Banks buy or sell on behalf of the System in the open market? The Federal Reserve Act as amended stipulates the types of securities which they may transact. They may be classified as follows:

(a) cable transfers, bankers' acceptance and bills of exchange of the kinds and maturities eligible for rediscount;

(b) direct obligations of the U. S. Government as well as obligations fully guaranteed by it;

(c) obligations of State and local governments issued in anticipation of tax receipts or other assured revenue, which have a maturity not more than 6 months from date of purchase; and

(d) bonds of the Federal Farm Mortgage Corporation of the federal land banks, and of the Home Owners Loan Corporation with maturities not in excess of 6 months from date of purchase.

Bankers' acceptances provided the original means by which the system controlled the credit situation in the country. Up to 1932 the system purchased and sold a considerable volume of acceptances in the open market. After 1932 this means fell into disuse. However, the rapid expansion in the use of bankers' acceptances since 1935 to levels exceeding 1932 may portend its rivival. Though this may be so, in recent years and even now, open market operations have been transacted almost exclusively in Federal securities like Treasury Bills. On very rare occasions the system may also deal in long-term securities. In conducting open market operations, the Reserve Banks are permitted to deal with recognised security dealers, big business corporations and financial institutions like commercial banks and insurance Companies.

Another type of open market operations which has become very important since the last war is what is often referred to as 'repurchase agreements'. These transactions involve the Reserve Banks and non-bank dealers in government securities, and the initiative lies with the former. When money is 'tight' a dealer can sell a short government paper to any Reserve Bank at a spot price. However, he is obliged to purchase the same security on or before a stipulated final date at a forward price. The distinction between this type of open market operations and others is that in 'repurchase agreements' a dealer is obliged to buy back the same security which he earlier sold to a Reserve Bank at some future specified date. 'The difference in the spot price for one transaction and the forward price for the other allows the Reserve Bank interest on the effective loan[1]' Normally the agreements are set up to run for a period not exceeding 15 days but any agreement may be terminated virtually without notice at the option of either the dealer or the Federal Reserve.

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[1] R. S. Sayers, op. cit., pg. 244

The usefulness of open-market powers as a device to control the volume of deposits in the United States is subjected to some potential limitations. Four of them are as follows:-

(a) such operations in the open market may lead to a conflict with the system;

(b) there is the possibility of member banks obtaining financial assistance from the Reserve Banks;

(c) member banks may have too much excessive reserves; and

(d) in carrying out such operations, the System must choose between a proper regulation of the cash reserves of commercial banks on the one hand and stabilization of interest rates on the other; it cannot achieve both these aims simultaneously.

The first limitations which we have just listed is very real in the United States. During the Korean War period, for example, inflationary pressures were very strong because of the accelerated expansion of bank deposits. Consequently, in August, 1950, the System made a request for voluntary co-operation in restraining credit. Simultaneously, however, the Treasury announced its attention to sell $13 billion worth of short-term securities. The market would not absorb the issue, and to prevent it from failing the System was forced to acquiesce in the demands of the Treasury and buy a large part of the issue. This evidently violates the most basic tenets of a sound monetary policy.

Like in Great Britain, commercial banks in the United States can theoretically obtain financial assistance from the System through any of its 12 Reserve Banks by borrowing or rediscounting bills. The fear in this instance is that a sale of securities, for example, in the open market by the Reserve Banks may not have any marked effect on their cash ratio[1] especially when its depletion so resulted can be offset by seeking recourse to Reserve Bank credit. But again as in Great Britain we need not over-emphasize this limitation. For one thing, borrowing from the Reserve Banks by commercial banks in the United States is a privilege but not a right. Indeed, it was laid down in the Banking Act of 1933 that the Reserve Banks can refuse, for cause, credit accommodations even to a member bank that present 'eligible' paper. This was the first legal recognition of a long-established policy of the System authorities, namely that the lending function of the Reserve Banks should not be automatic but should rather be an instrumentality of the System's over-all credit policy. Moreover, in the United States there has been a long-established tradition against continuous borrowing by commercial banks. The System authorities place a good deal of emphasis on the reluctance of commercial banks to show indebtedness in their financial statements. It has often been asserted that the sentiment against showing indebtedness leads banks to repay their borrowings, if any, as quickly as possible.

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[1] This is calculated only on the basis of their reserves held at the Reserve Banks.

Thus one writer[1] states the tradition against continuous borrowing is well established and it is the policy of the Reserve Banks to maintain it. Lastly, there exists the possibility of introducing 'progressive rediscount rate' to restrain commercial banks from seeking too much Reserve Bank credit. In the early 1920s some Reserve Banks actually used rediscount rates that rose progressively with the volume of borrowing by one member bank. This measure, however, was abandoned after severe criticism by the member banks. But this does not necessarily mean that it cannot or will not be taken up again specially when circumstances warrant its uses. The classic check on the expansion of bank reserves through rediscount is variations in the rediscount rate. By raising or lowering the rediscount rate the Reserve Banks can make the availability of Reserve Bank credit more or less costly. Moreover, changes in the rediscount rate as a symbol of Federal policy may have important psychological effects. They reflect the recognition by a group of well-informed and responsible officials of a change in the credit situation. Thus 'tight' money conditions as evidenced by higher rediscount rate may lead to a changed attitude on the part of bankers toward further loan expansion. Even though customers' borrowing rates may not rise, bankers may scrutinize borrowers more carefully and eliminate the less desirable loan applications. To the extent that this happens, a rise in the rediscount rate may restrict changes in the money supply even though interest rates fail to rise enough to curtail borrowing.

As noted earlier, it has been the practice of commercial banks in Great Britain not to keep cash reserves in excess of the ratio which they regard as prudent, that is 8 per cent. And this greatly enhances the effectiveness of open market operations in Great Britain. However, the same cannot be said about American commercial banks; in the past they often kept reserves greatly in excess of the legal requirements, and consequently it was difficult for the Federal Reserve System to influence the volume of bank deposits by acting upon the reserves of the member banks via open market operations. This limitation on the usefulness of open market operations as a device for deposit control in the United States was markedly felt especially in the 1930s. But the System authorities were not willing to let this vitiate the effectiveness of its open market sales. Consequently, the Banking Act of 1935 was passed whereby the Board of Governors of the Federal Reserve System is authorized to increase, whenever necessary, the reserve ratio of member banks up to certain limits set up Congress. On several occasions since 1936, especially during and since the Second World War, the Board increased the reserve ratio of member banks in order to reduce the volume of deposits drastically. Thus in the event when cash reserves of commercial banks are undully excessive variations in reserve requirements can be used to make open market operations effective. 'But this is a weapon for rather exceptional circumstances; ordinarily the amount of spare cash in the System as a whole is small enough to allow the authorities to rely on open-market operations alone'.[2]

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[1] W. R. Burgress: 'The Reserve Banks and the Money Market' 2nd ed., (New York) 1946. pp. 219-220

[2] R. S. Sayers, op. cit., pg.246

The last, and most serious, limitations of open market policy is that in carrying out such formidable powers, the System has to choose whether it wants to determine the size of the cash reserves of the commercial banks or to fix interest rates; it cannot arbitrarily fix both[1]. If the System wants to fix their reserves, it must accept the consequence that the purchase or sales it makes in the open market in fixing these reserves will affect interest rates on securities (and hence their prices). For instance, if the System wishes to reduce their reserves it will probably have to conduct considerable sales of securities; these sales will, of course, result in higher interest rates (and lower security prices). Though such an action is desirable to check inflationary pressures which may be present, it may be against ordinary government policy especially when the National Debt is large and the Treasury has a "strong incentive toward keeping up the selling price of government bonds - in order to keep interest charges on the debt low and prevent financial embarrassment of financial institutions holding government bonds"[2]. Contrariwise, if the System desires to fix interest rates, as it did from December, 1941, to March, 1951, it must accept the consequence that the purchases or sales it makes in fixing them will affect the cash reserves of commercial banks, and so the volume of bank deposits. For example, if the System wishes to fix interest rates at a low level because of the existence of a large National Debt it will probably have to support the correspondingly high security prices by extensive purchases of securities; these purchases will expand the cash reserves of the commercial, thereby tending to cause a big expansion in the money supply. For obvious reasons this may not be compatible with existing economic conditions. Under such circumstances the use of the open-market powers as an instrument of monetary management is completely vitiated. This particular limitation can also lead to much conflict between the System and the Treasury.

Because of all these potential limitations open market operations in the United States have often been said to be less perfect than these in Great Britain. Nevertheless, open market policy is still a very powerful instrument of deposit control in the United States. This has been proved by its extensive use during the last few decades.

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[1]This limitation is applicable in any country where open market policy is used for monetary management.

[2]Paul A. Samuelson: 'Economics - An Introductory Analysis', 4th ed., (McGraw-Hill, Kogakusha) pg.352.

CHAPTER V

OPEN MARKET POLICY
IN
UNDERDEVELOPED COUNTRIES

The Difficulties

Apart from those countries we have indicated in the preceding chapter, open market policy is hardly used as a full-fledged instrument of deposit control in any other country. For example, this is the case in South and East Asia and Latin America where most countries are very underdeveloped. Indeed, in some of these underdeveloped countries it is not used at all or where it is used as such it generally serves to supplement in a subordinate manner other instruments such as variations in reserve requirements or discount policy or some forms of qualitative controls. Moreover, in some underdeveloped countries where open market operations are conducted to any extent, they are primarily meant for supporting the prices of government securities rather than regulating the volume of bank deposits. One relevant question is this: Why is it that open market policy is so rarely used as an instrument of deposit control?

For one reason or another, as we shall see, open market policy is of little or no importance in many underdeveloped countries. In such countries the lack of a suitable institutional (and not so much legal) framework is a serious barrier to the development of open market policy as an effective instrument of monetary policy. The first three conditions[1] which are responsible for the effectiveness of open market operations are absent to a large degree in underdeveloped countries. Probably the most important and most frequent obstacle is the lack of broad and active money and capital markets. For example, in the Phillippines open market operations have hardly been used because there is no bond market of any consequence. Furthermore, there is practically no market for commercial bills in most of these countries. The absence of such financial markets, as we have seen, impairs considerably the effectiveness of such operations. It means that commercial banks tend to operate with too much reserves and their cash ratio will consequently tend to fluctuate widely. Moreover, security dealers are hard to locate. Granted that in some less underdeveloped contries there exist some forms of securities markets; but the latter do not possess the capacity required for the completion of large deals within a reasonable period of time.

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[1] Refer chapter III

Even if central banks finds it possible to carry through the required buying or selling transactions within a reasonable period of time, these will cause substantial fluctuations in security prices, because of the narrowness of their financial markets. Such fluctuations in security prices may be very unhealthy. In the first instance they may involve central banks in considerable losses. This difficulty may not be insuperable as central banks can afford, to stand occasional losses for the sake of monetary stability. However, such fluctuations in security prices have extremely disturbing effects on other parts of securities markets. They may make the investors, both actual and potential, of such securities nervous about the marketability of their investments, and this, of course will retard the development of good securities markets, the very thing underdeveloped countries lack. Moreover, the Treasury may also object to a policy that may cause such wide fluctuations in security prices at convenient time. For one thing, this may result in a loss of confidence in government securities, for another they may increase the cost of servicing the National Debt.

The limited character of their securities markets would not have mattered much on most occasions if commercial banks in such countries maintained fixed cash ratio. In these countries commercial banks have not adopted such a practice. Instead, they are accustomed to seeing considerable fluctuations in their cash ratio and may consequently not react changes in their cash balances brought about such open market operations as is possible in these markets.

A less serious difficulty is that in some of these countries a sufficient volume of securities suitable for open market operations may be lacking. Either the Central Bank does not possess sufficient volume of securities for sale or the market holdings of securities eligible for central bank purchase are very small. But this problem can be overcome easily; legislative measures can be taken to enable central banks to issue their own securities, as in Ceylon and South Korea.

Perhaps, there is one favourable factor. In many of these underdeveloped countries commercial banks have not yet got into the habit of borrowing regularly from central banks or rediscounting their bills with them. This means that the possibility of obtaining central bank credit to offset any depletion in their cash reserves as a result of a sale of securities by central banks is precluded. However, two points which may undermine this favourable factor should be mentioned. In the first place though they have not yet got into the habit of obtaining financial assistance from central banks there is nothing to prevent them from doing so whenever necessary, and thereby may replenish their cash balances. Secondly, most commercial banks in underdeveloped countries are foreign-owned rich institutions with headquarters abroad, and they can transfer whatever working capital they need from them at any time. In other words, they can replenish any depletion in the cash reserves that may result from a central bank sale of securities in the open market. Because of these difficulties open market operations have hardly been used primarily to control the volume of bank deposits in underdeveloped countries.

Open Market Policy in Ceylon

In Ceylon the Monetary Law Act of 1949 authorizes the use of open market operations by the Central Bank as a weapon of central bank monetary policy. Most of these operations are carried out in Colombo. The effectiveness of open market operations in Ceylon does not suffer from a lack of securities. When the Central Bank had to sell securities to influence commercial bank reserves, its stock of them would be almost inexhaustible. This is because the law[1] authorizes the Central Bank to issue its own securities. Apparently, this is the only point in favour of open market operations in connection with its use as an instrument of deposit control. In any case open market operations have been conducted only on a limited scale, and on the very few occasions in recent years when such transactions were carried out they were meant primarily to support the prices of government securities rather than to regulate the volume of bank deposits in the country. It is not difficult for us to understand why open market operations are unlikely to be a major weapon of control for the Central Bank of Ceylon.

The market for securities in Colombo is very narrow and the business done is hardly of any consequence. If the Central Bank desires to conduct operations large enough to have any immediate impact on the commercial banks they would most likely upset the market by causing wide variations in the prices of securities. As in the case of most underdeveloped countries most of these securities are those issued by the Government. Evidently, the Ceylonese Government does not look upon this with approval since fluctuations of prices of government securities may undermine public confidence in government securities and they may increase the cost of servicing the National Debt.

Furthermore, there is no such thing as a fixed ratio between cash reserves and credit operations in the commercial banking system of Ceylon. The commercial banks do not operate on a constant cash ratio, and they do not increase their loans merely because their cash balances have risen. In any case there is little or no evidence to show that their credit policy has been determined by changes in the cash ratio.

As regards the efficacy of open market operations in Ceylon, it is very doubtful that the Central Bank can increase the volume of deposits in the country merely by buying securities from the market. Any purchase of securities by the Central Bank can only lead to a situation of 'hyper-liquidity' in the commercial banking system since the scope for lending is severely restricted by institutional factors and economic backwardness of the economy. On the other hand, in a boom the Central Bank can, of course, prevent an increase the money supply by making credit sufficiently scarce through whatever sale of securities that is possible. However, it is highly questionable whether such a policy is desirable, for it is only during boom periods that the internal economy, normally sluggish and inactive, experience a slight increase in tempo of economic activity.

Under these circumstances open market purchases and sales can hardly be effective in regulating the volume of deposits in the country.

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[1] Monetary Law Act: Section 90.

Open Market Policy in Pakistan

The theoretical importance of open market operations as an instrument of central bank monetary policy has long been realized in Pakistan. But when the State Bank was set up as the Central Bank of Pakistan there was hardly any market for securities, Government as well as private. Indeed, at the time of its establishment securities of the Government of Pakistan were considered as unmarketable[1]. Therefore, open market operations were not of any importance right from the beginning. But the State Bank was not satisfied to let things stand as they were. As a basis for open market operations an ingenious attempt was made to develop a market for securities. The State Bank considerably helped its early development by providing reasonable support to the market and by systematizing the procedure for the purchases and sales of Government securities. Since Partition the central and provincial governments have floated a number of loans and there is at present a wide variety of maturities available for trading. The development of the market for securities in recent years has thus provided some basis for open market operations.

Nevertheless, the stock exchange in Karachi is still too narrow to allow any large scale purchases and sales to exert the desired impact on the banking system. Moreover, its narrowness may cause an enormous variation in the prices of Government securities and thus discourage investors.

The market is admittedly narrow but such intervention in the market by the State Bank is important. This is because economic activity tempo in Pakistan - and hence the demand for finance - is highly seasonal. During the busy season the commercial banks can use all the money they can lay hands on. On the other hand, the slack season is associated with a marked increase in their cash balances. Under such circumstances the State Bank has been prepared to buy securities from the commercial banks during the busy season with the primary aim to supply them with more funds and to sell securities to them when their cash balances rise. The procedure under which such trancactions are carried out is generally the same as that in Great Britain. For example, the State Bank has its own specially-appointed brokers in the market, and when it wants to sell (or buy) securities its brokers are informed about it and it leaves the rest to the market to make use of the facilities offered. So far such operations have only been on a very small scale and are confined almost exclusively to approved brokers and other institutional investors like the commercial banks. But the procedure and basis have definitely been established.

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[1] Zahid Husain: 'Central Banking in Pakistan', Federal Economic Review Oct., 1954. pg. 37.

Open Market Policy in Malaysia

Malaysia is in no way different from other underdeveloped countries we have mentioned in so far as the use of open market policy is concerned.

Open market operations are very rarely used to control the volume of deposits in this country. Whatever open market sales that have been made they were used to help the Government to finance its development projects or to support the prices of Government bonds rather than to influence the volume of deposits in the country. We need not have to go far to seek some reasons for this state of affairs.

Like most underdeveloped countries, the money and capital markets in this country are very rudimentary in structure. This is a fundamental problem. Another problem which is less serious is the availability of securities for transactions. Through various issues of Treasury Bills the Government has done much to encourage market dealings in securities, and this will, of course, help to develop more fully financial markets in this country. Nevertheless, most of the securities are Treasury Bills. Finally, commercial banks in this country are very rich institutions with their headquarters abroad. This means they can transfer whatever working capital they need from them at any time.

For all these reasons, open market policy is considered in Malaysia as a weapon of monetary plicy of the future. The Central Bank of Malaysia depends more on 'directives' than any other means to regulate monetary conditions in the economy. The use of 'directives' is greatly enhanced by the fact that the Bank can secure co-operation from the commercial banks whenever necessary.

CHAPTER VI

CONCLUSION

The Growing Importance of Open Market Operations

The whole tenor of this paper has been that, as a weapon of deposit control in particular and credit control in general open market operations can be very powerful. If the necessary conditions[1] are present open market operations can be used to contract as well as expand the volume of bank deposits in the country. Such conditions are present to a substantial extent in highly developed countries like Great Britain and the United States; and, because of this, open market policy is the principal weapon of monetary control on various occasions[2]. However, open market operations are vulnerable to a number of limitations. All these limitations are vividly shown when we try to apply the technique of open market policy to regulate the volume of deposits in underdeveloped countries such as Ceylon, Pakistan, South Korea and the Philippines. Because of these limitations open market policy is seldom used in such countries[3].

It is clear then that there are many institutional obstacles to be overcome before central banks in underdeveloped countries can conduct security sales and purchases to regulate the volume of deposits successfully. In some of these countries progress has been achieved in this direction. This is evidenced by the fact that open market operations have become part and parcel of banking activities of most central banks established recently, as for example, the Central Bank of Canada and that of Argentine.

Obstacles can be Overcome

The growing experience of new central banks, as well as old, with open market operations is demonstrating that many of the obstacles to their effective use can be overcome. As a rule, the easiest obstacle to remedy is that of the lack of a suitable central bank securities portfolio. When a central bank has no book claims on the government that can be transformed into marketable securities, it may obtain the necessary legislation in order to secure the needed ammunition. The Central Bank of Ceylon and that of South Korea are classic examples. A much more serious obstacle is to be found in the lack of appropriate fiscal and debt management policies. However, there is growing realisation in many countries of the need for balanced budgets and for covering unavoidable deficits through noninflationary means, and a number of countries have been adjusting their policies accordingly. The absence of sufficiently broad money and capital markets is another fundamental

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[1] See Chapter III

[2] See Chapter IV

[3] See Chapter V

problem. In the less developed countries, the broadening of financial markets is largely dependent on continued economic growth and diversification. But even among these countries, as well as among the more developed ones, central banks have already contributed significantly to the development of such markets, both by helping to create a proper institutional framework and by nourishing the further growth of these markets. Pakistan and Malaysia are two examples. As regards the fluctuations of cash ratio, the problem created by them is not hopeless. Legislation can be effected to have a legal cash ratio throughout the banking system, and the exact level can be left to the discretion of central bank authorities. ~~It will be better central bank authorities.~~ Finally, as regards the problem of commercial banks seeking financial assistance from central banks to offset any reserve depletion due to central bank sales of securities, certain safeguards can be made. All these safeguards have been discussed earlier[1]. The only point we need to note here is that they should be formulated according to local conditions.

Nevertheless, apart from some developed countries, the open market instrument still is very rarely the chief deposit control tool. In most countries, where open market operations are used, they generally serve to supplement in a subordinate manner other instruments such as cash reserve ratios and some forms of selective control. But no economist would advocate that a central bank should only adopt open market policy to the complete exclusion of others to control deposits, and no prudent central banker would follow such an advice. Despite this, in the last few years the sale of government securities by central banks, in order to mop up excess liquidity, has become in many cases an important instrument of monetary management.

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[1] See Chapter IV

APPENDIX I

THE EVOLUTION OF OPEN MARKET OPERATIONS

The purpose of this appendix is to throw some light on the evolution of open market operations. We shall arbitrarily break up our discussion into three parts as follows:-

(a) Development prior to 1914
(b) Development between 1914 - 1939, and
(c) Development since 1939.

Development Prior 1914

Most writers on the 'Theory of Central Banking' would consider Great Britain as the birth place of open market operations. This is not very surprising in view of the fact that the Bank of England was the first Bank "to develop what are now generally recognised as the fundamentals of the art of central banking."[1] But a more important explanation for this contention is that as early as in 19th century, especially prior to 1833[2], the Bank of England carried out transactions in securities to adjust its reserve position. However, security transactions of this nature were never carried out on a very large scale, and do not seem to have been an important instrument of monetary policy for the Bank in the 19th century.[3] In any case, such security transactions appear more like the compensating transactions of commercial Banks than the open market operations of a central bank. Security transactions by a banking institution only take on the characteristics of open market operations in the modern sense, and in the context of this paper, when they are undertaken principally to regulate the activities of other banking institution, especially in the direction of deposit creation, rather than to regulate its own reserve position. That is interpretation the Bank of England did not exercise open market operations until the 1920s when these were first used for other purposes than regulating its own reserves.

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[1] R.H.De Kock: "Central Banking" (1952), p. 195

[2] Hawtrey : "A Century of Bank Rate", p. 256

[3] Sir John Clapham: "The Bank of England: A History" (1944),2,295-8

Moreover, apparently Sayers[1] does not agree with this interpretation. He believes that security transactions that were carried out prior to 1914 were more than just compensating transactions. They were actually used, at least in some isolated cases, to withdraw funds from the market. The principal methods were known as 'selling Consols spot and buying for the account' and 'borrowing in the market'. In the case of the former, the bank sold Consols for cash and subsequently repurchased them for the 'account'. In other words, between the time when the consols were sold and the time when they were repurchased, funds were withdrawn from the market. On the other hand, borrowing in the market meant that the bank sought financial assistance from discount houses and bill brokers against the pledge of government securities. Up to the end of the 19th century, the bank used the method of selling Consols spot and buying them back at times more extensively than that of borrowing in the market[2]. While the bank used principally these two methods to withdraw funds from the market, other methods were also used on various occasions, as for example, the outright sale of government securities and borrowing from the commercial banks.

All these three methods were discussed by Sayers[3]. The latter[4] arrives at the conclusion that the bank adopted a number of devices, 'in an extremely hesitating and not very consistent manner', to reduce the supply of money in the market, and thereby solved its problem of controlling the market rate. But 'the solution of this problem was piece-meal rather than systematic, and in many ways, it was unsatisfactory'. Moreover, 'the diversity of methods employed by the Bank alone suggests that it was not very happy about any of them.'

Apart form the Bank of England, the Reichsbank was probably the only other central bank which undertook some form of open market operations prior to 1914. In addition to purchasing and selling foreign bills, it used to offer Treasury Bills for sale in the open market at times with the aim of absorbing excessive cash, and thus preventing a too drastic fall in the market rate.[5].

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1 'Bank of England Operations, 1890-1914'

2 i.e. from 1890 to 1914

3 R.S.Sayers ibid pp 27-36

4 ibid pp 128-9

5 Conant: History of Modern Bank of Issue (5th ed.) p.217

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In France, from 1858-1868 the Bank of France changed its discount rate frequently in imitation of the Bank of England. At the same time, the question was raised as to whether or not the Bank of France should also engage in open market operations. However, the reaction of this vital proposal was unfavourable at that time. The reasons were given. First, it was felt that such transactions in the open market would expose the bank to risk of loosing arising from price fluctuations of securities. Secondly, any such transactions would expose the bank to the suspicion of manipulating the market.

Why not Important prior to 1914

In view of what we have said so far we may generalize that prior to 1914 open market operations were not an important instrument of monetary policy, and as such were seldom used on a scale large enough to effect any marked change in the credit situation of any country. It was generally believed that the technique of discount policy was far superior. Discount policy was thought to be still effective in credit control, and there was no need for a new method of control in the form of open market, policy which was regarded as experimental. Moreover, open market might unnecessarily involve central banks in considerable financial loss and might be looked upon as an attempt on the part of certain banks to manipulate the market.

Development between 1914-1919

As regards the development of open market operations during the war of 1914-1918 and for some time thereafter, De Kock[2] tells us that whatever open market operations that were carried out by banks in Germany, Great Britain and the United States, they were governed mainly by the requirements of war finance or post-war re-adjustment. That is to say, in addition to creating central bank credit through collateral loans against Government securities, these central banks also increased their own holdings of Government stock, such as Treasury Bills.

Development since 1920

Since 1920 onwards, the development of open market operations as a potential instrument of monetary policy took a new turn. There was more enthusiasm. In Great Britain, open market operations were once more employed though merely as a subsidiary and complementary weapon with the aim of making the Bank Rate effective. However, in due course, especially

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[1] Margaret Myers: 'Paris as a Financial Centre' p.29

[2] M.H.De Kock, op.cit., pp 196-7

...ur, the 1932 and 1933 open market policy came to be accepted [illegible] of [illegible] central banks of creditor countries, and to ... such independent operations in the ... ate.

In the United States, more or less the same ... occurred. Security transactions by the Reserve ... large scale in 1932, but at that time ... were insufficient to prevent ... because their loans to banks were being repaid from the proceeds ... large gold inflows into the United States.[1] This ... demonstrated to them open market operations were ... to influence credit conditions. ... 1933 the general course ... policy was found ... forceful security transactions ... carried out with primary ... the general credit situation.[2] ... instrument of monetary ... open market operations were ... use of open market operations on a continuing basis as a means of influencing the general credit situation in the United States dates from 1933. After the stock market crash, as was noted earlier, open market operations were used as an independent instrument of monetary policy, and later supplanted the discount policy as an instrument to control supply in the country.

Since 1932 there was also an increasing tendency on the part of other central banks to employ open market operations more territorial to control credit. For example, in June 1936 the Bank of France was specially authorized by decree of the President to undertake open market operations in respect of Treasury bills. National Defence bonds with a maturity not exceeding two years, short-term bills of local authorities, and even bankers' acceptances. The decree emphasized that this power was granted to the Bank so that it could influence the volume of credit and to regulate the money market.

In Holland, the increasing importance of open market operations was soon realized. This realization was reflected by the fact that the subject of open market operations was discussed when the charter of the Netherlands Bank was renewed and sanctioned by the legislature in 1936. Under the old charter it was not authorized to conduct any form of open market operations whatsoever and had to rely almost entirely on the discount policy for controlling the credit.

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[1] J. M. Keynes: 'Treatise', vol. 2, p.255

[2] Ibid., p.256

[3] See chapter IV.

rover, under the new charter as enacted by the Act of 1948 it was given the power to purchase and sell Government bonds of the Netherlands and its overseas territories, Treasury bills and bankers' acceptances. In more or less the same manner the Bank of Norway was authorized to conduct open market operations in 1936; the National Bank of Belgium in 1937; the Bank of Sweden and the National Bank of Denmark in 1938. Locally, open market operations have become an intricate part of banking activities of most modern central banks.[1]

Explanations for Increased Importance

As a concluding point to this appendix, it is instructive to look the main reasons for the increased use and importance of open market operations immediately after the 1920s.

Some reasons given by De Kock are as follows;[2]

(a) "the experience gained during 1914-18 war and post war periods;"

(b) "the decline of the discount rate as an instrument of credit control...; and the consequent need for another and more direct method;"[3]

(c) "the wider scope for open-market operations as a result of the considerably increased volume and variety of Government and other gilt-edged securities which are now available and negotiated in the markets of most countries;" and

(d) "the increased needs of the state in peace as well as in war and its increased influence over the money market and the capital market generally, out of which has arisen inter alia an official policy of maintaining relatively cheap money in practically all circumstances."

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[1] For an account of open market operations in some central banks, see De Kock, op. cit., chapter XII

[2] All quotations are from De Kock, ibid, p.197

[3] For a discussion on some of the reasons why the discount rate declined in importance since 1914, see ibid., pp.185-9

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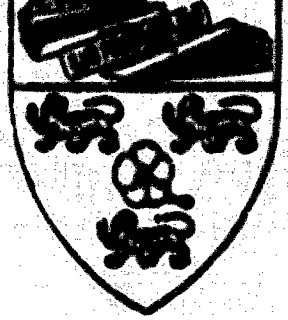

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