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**Managing Money and Credit  
in a Developing Economy**

**CENTER FOR RESEARCH ON ECONOMIC DEVELOPMENT  
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by

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**MANAGING MONEY AND CREDIT  
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## MANAGING MONEY AND CREDIT IN A DEVELOPING ECONOMY\*

BY WAYNE W. SNYDER

There is no general agreement about the exact quantitative role that monetary policy plays in the process of determining money and credit in any economy, nor about how it relates to the ultimate objective of economic stability. But every government recognizes that monetary policy can be either stabilizing or destabilizing and acknowledges its obligation to attempt the proper management of money and credit through explicit policies. The theory of monetary policy is, however, based mainly on the traditions and conditions in the West, particularly the United States and Britain; such a theory, though appropriate for highly industrialized countries, has only limited applicability for a country where modernization has not proceeded very far.

This is not intended to suggest that economic theory as developed in the West is generally inapplicable to the developing countries in the sense suggested by Boeke.<sup>1</sup> He believed that "an early death awaits" any attempt "to transplant the tender, delicate hothouse plants of Western theory to tropical soil . . ." (p. 143) because the basic economic and social assumptions of Western theory have no place in an Eastern society. A wider consensus supports the view that the differences do not render existing theory invalid, but rather require the recognition that the behavioural and structural relationships, and their associated parameters, need adaptation. In particular, Western economies are generally open and financial intermediaries important, albeit to differing degrees among countries. For reasons to be stated later, it is a better approximation to assume that developing countries are closed and that no significant credit markets or intermediaries to banks exist.

In a developing country the central bank itself is frequently new and inexperienced with the problems of monetary management. The commercial banks normally are older institutions, but often they were originally foreign controlled and were created principally to provide credit for trade (mainly the financing of imports and exports) and plantation agriculture. In such situations many governments have left the commercial banks to their traditional roles and have

\*This article had a long gestation before reaching this form. It was conceived in my Ph.D. thesis (Harvard University, unpublished, 1963) done under the stimulating guidance of Professor Duesenberry, and from which a modified version of the chapter containing a quarterly model of the banking system was published as "Money in a Developing Economy: A Case Study of Pakistan, 1953-61," *Review of Economics and Statistics* XLVI (November, 1964) pp. 413-20, and a recent reappraisal for the period 1962-67 appeared in the same *Review* LII (February, 1970), pp. 54-61. This paper owes much to many useful comments made on earlier versions by several colleagues at the University of Michigan, especially Professors Porter, Shapiro and Stolper, helpful suggestions by the referee, and the editorial assistance of Janet Eckstein.

<sup>1</sup>J. H. Boeke, *Economics and Economic Policies of Dual Societies* (New York: Institute of Pacific Relations, 1953).

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created development corporations to provide both short- and long-term capital to the agricultural and industrial sectors. Capital markets are rudimentary and at best offer skimpy portfolio possibilities, which make the usual kinds of open market operations a practical impossibility. This underdevelopment in the entire financial sector has long been recognized as a serious restraint on the use of traditional instruments to control money and credit, such as open-market operations, variable reserve requirements, and discount policy.<sup>2</sup>

My purpose here is to supplement the existing literature by providing an analytical framework which helps pinpoint the exact nature of the problems of monetary management in a developing country, and to suggest substitute ways to achieve the desired objectives which have been largely ignored by others.<sup>3</sup> In order to do this, it will be helpful first to outline the essential ingredients of traditional theory, before suggesting how they need to be modified to fit the general characteristics and needs of a developing country.

### I. TRADITIONAL THEORY

The essential assumptions and implications of traditional theory can best be illustrated by using a simplified version of the asset and liability statements (T-accounts) of the central bank and the commercial banking sector. Gold and other forms of international reserves are omitted from the assets of the central bank because they are assumed to be either determined exogenously or among the ultimate objectives for which the monetary policies are designed (i.e., balance of payments considerations). Commercial bank reserves include both vault cash and other reserves, but exclude any excess reserves which the assump-

<i>Central Bank</i>		<i>Commercial Banks</i>	
Assets	Liabilities	Assets	Liabilities
(G <sup>1</sup> ) Government securities	(C) Currency	(R) Reserves of commercial banks	(D) Demand deposits
(B) Borrowing by commercial banks	(R) Reserves of commercial banks	(G <sup>2</sup> ) Government Securities	(B) Borrowing from the central bank
		(L) Loans to the private sector	

<sup>2</sup>See, for example, Arthur I. Bloomfield, "Monetary Policy in Underdeveloped Countries," in *Public Policy* (Cambridge: Harvard University Press, 1956), pp. 232-74; Peter G. Fousek, *Foreign Central Banking: The Instruments of Monetary Policy* (New York: Federal Reserve Bank of New York, 1957); S. Ghosh, "Monetary Control in an Underdeveloped Economy," *Economia Internazionale* (November 1960), pp. 603-10; D. R. Khatkhate, *Problems of Monetary Policy in a Developing Country* (Bombay: Co-operative Book Depot, 1954); S. N. Sen, *Central Banking in Underdeveloped Money Markets*, 3rd ed. (Calcutta: Bookland, 1961).

<sup>3</sup>See, however, Graeme S. Dorrance, "The Instruments of Monetary Policy in Countries Without Highly Developed Capital Markets," *IMF Staff Papers*, 12 (July 1965), pp. 272-81, for explicit suggestions concerning the traditional instruments which are likely to be most effective in helping a developing country to achieve its monetary objectives, and Richard C. Porter, "Narrow Security Markets and Monetary Policy: Lessons from Pakistan," *Economic Development and Cultural Change* 14 (October 1965), pp. 48-60, for a discussion of how to establish a fairly broad market for government securities within the limitations of a developing country.

tion of competitive and frictionless markets assures. Time deposits are omitted from commercial bank liabilities for simplicity and because they are not generally considered to be part of the money supply;<sup>4</sup> they will be introduced into the theory at a later stage. Other assets and liabilities such as net worth, government deposits, foreign non-monetary items, etc. are also omitted for simplicity. At best they are exogenously determined factors which central banks must consider when making their policies; at worst they further complicate effective control of money and credit. Traditional theory about the functioning of monetary policy can be expressed by the following relationships:

- (1)  $G^1 = G^{\bar{1}}$
- (2)  $B = \bar{B}$
- (3)  $C = c(C+D)$
- (4)  $R = rD$
- (5)  $G^1 + B = C + R$
- (6)  $R + G^2 + L = D + B$

Traditional theory assumes that the total government debt is determined by fiscal policy, but that through its open market operations the central bank controls whatever amount of government securities it wishes in its portfolio, expressed by relationship (1). The central bank also controls its loans to commercial banks by a combination of varying its discount rate, moral suasion, and other accepted banking practices, expressed by relationship (2). Together these assets are the counterpart of its two liabilities: currency and commercial bank reserves. The central bank permits the nonbanking private sector to hold whatever proportion of the total volume of money in the economy that it wishes, expressed by relationship (3). For any given level of its total assets, the central bank controls the level of demand deposits (and ultimately the total volume of money) through the required reserve ratio, expressed by relationship (4). The model is closed by the two accounting identities (5) and (6), from which an identity for the relationship between total bank credit and money can be obtained:

$$(7) \quad G^1 + G^2 + L = C + D$$

A "money multiplier" is implicit in the reduced-form equation for the money supply ( $C+D$ ), which can be derived from the model as thus far developed:<sup>5</sup>

$$(8) \quad C + D = \frac{1}{c + r(1-c)} (G^{\bar{1}} + B)$$

Although the money multiplier, expressed in this highly simplified form, is hardly more than a tautology, it provides a useful way to discuss the potential effectiveness of monetary policy. Monetary theory suggests that the immediate objective, controlling the money supply, can be accomplished by varying any *one* of the

<sup>4</sup>Or, as officially explained, "savings and time deposits, while serving a store-of-value function, are not in themselves means of payment; only currency and demand deposits serve in this active monetary role," *The Federal Reserve System: Purposes and Functions*, 5th ed. (Washington, D. C.: Board of Governors, 1963), pp. 7-8.

<sup>5</sup>For the derivation of the money multiplier see Richard Goode and Richard S. Thorn, "Variable Reserve Requirements Against Commercial Bank Deposits," *IMF Staff Papers* 7 (April 1959), p. 43.

three traditional instruments available to central banks: the required reserve ratio ( $r$ ), open market operations in government securities ( $G^1$ ), and the level of loans to commercial banks ( $B$ ).<sup>6</sup> The potential effectiveness of the traditional instruments in a developing country is discussed below.

## II. THE REQUIRED RESERVE RATIO

Varying the required reserve ratio is unlike the other two traditional instruments, which allow commercial banks to react through market mechanisms, because it forces every bank to adjust to the new rate. For this reason it has often been described as a blunt instrument useful "in dealing with crisis or near-crisis situations."<sup>7</sup> In practice, its use is infrequent even among the financially mature countries. The United States has changed the rate less than a dozen times since 1949,<sup>8</sup> and the Bank of England was only recently authorized to require reserves (although traditionally commercial banks maintained a virtually constant 8 per cent cash ratio).<sup>9</sup> In other countries its use is generally rarer than in the United States, although a few countries, notably Australia and New Zealand, have altered the reserve requirement frequently, and some other countries have even used it to meet seasonal variations.<sup>10</sup> If its bluntness is a drawback to its frequent use, this can easily be eliminated by making changes apply only to *additional* deposits, i.e., by using a combination of basic and marginal rates.

Undoubtedly, variations in the required reserve ratio can be made smoothly enough to eliminate the instrument's bluntness, but its potential effectiveness is far less for a developing country than for a financially mature one. The money multiplier of relationship (8) and Figure 1 helps to illustrate this fact.

In a developed country, currency represents only a small proportion of the total volume of money, in some cases no more than 20 per cent, and reserves are typically even lower; together these factors produce a high money multiplier. For example, if currency represents 20 per cent of the money supply and reserves 10 per cent, the money multiplier is 3.6 and an increase in the required reserve ratio from 10 to 11 per cent will, *ceteris paribus*, cause the money supply to *fall* by 3 per cent. In a developing country, both reserves and currency (especially the latter) are typically higher. For example, if currency represents 60 per cent of the money supply and reserves 25 per cent, then the money multiplier is only 1.4; in order to obtain a similar decrease in the money supply (i.e., 3 per cent), it is necessary to raise the required reserve ratio from 25 to 30 per cent.

Having to vary the required reserve ratio by larger amounts in order to achieve comparable impacts on the money supply is not by itself an undesirable feature, unless this creates greater uncertainty than would otherwise be the case; but in the process of acquiring the additional reserves the commercial banks in

<sup>6</sup>The currency/money ratio ( $c$ ) can also be influenced by the monetary authorities via their effect on the rate at which banking facilities are expanded and by offering interest on demand deposits, but the short-term importance is not likely to be substantial.

<sup>7</sup>Dorrance, *op. cit.*, p. 276.

<sup>8</sup>This excludes several minor adjustments; see *Federal Reserve Bulletin* (July 1965), p. 276.

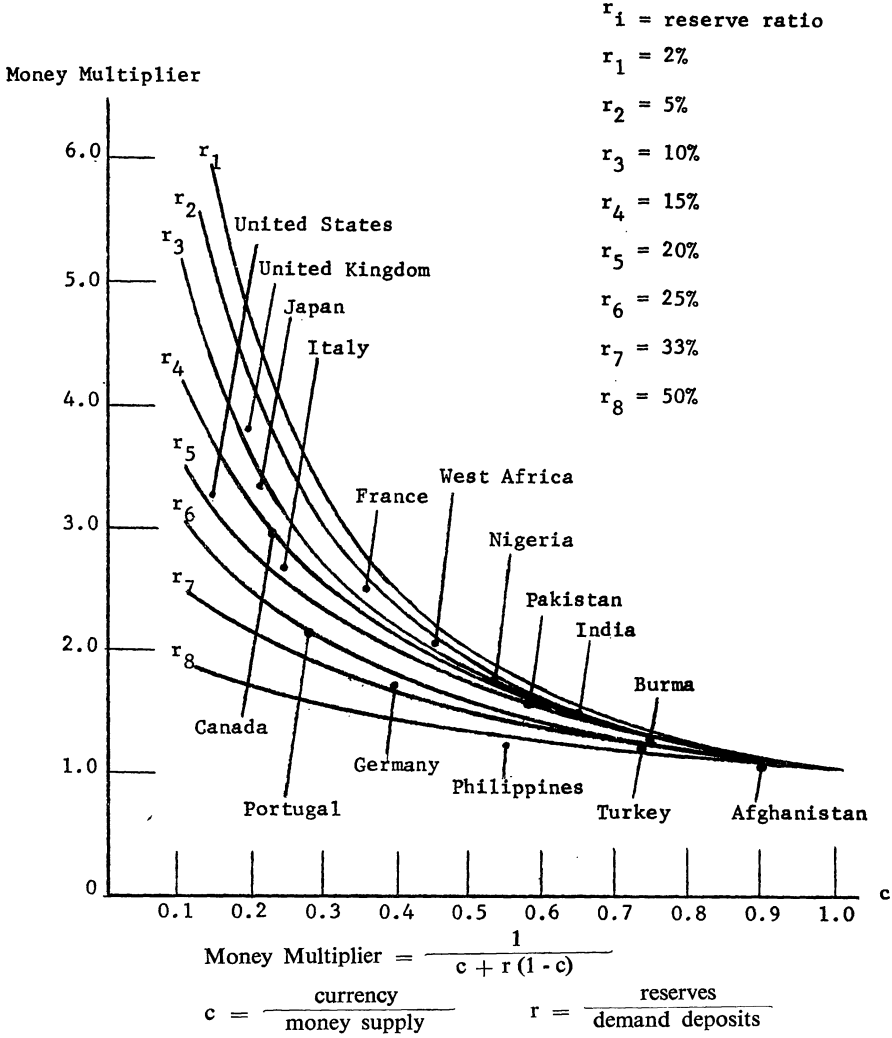
<sup>9</sup>R. S. Sayers, *Modern Banking*, 4th ed. (Oxford: Clarendon Press, 1958), p. 37.

<sup>10</sup>Goode and Thorn, *op. cit.*, p. 25.



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FIGURE 1



Source: *International Financial Statistics* for end of September 1968 (Washington, D.C.; International Monetary Fund).

a developing country will have to reduce their earning assets ( $G^2+L$ ) by more than in a developed economy (by 9 per cent as compared with 4 per cent in the above example). The process is symmetrical, of course, as changes in the required reserve ratio designed to induce identical percentage increases in the money supply will result in proportionally larger increases in the earning assets of commercial banks in developing than in financially mature economies. Understandably, central banking authorities are hesitant to use this instrument, because it requires such a drastic adjustment by commercial banks in order to achieve the desired objective and in the process affects the stability of their profits.

The consequences of having a small money multiplier in a developing country are not limited to the potential inefficiency of varying the required reserve ratio to achieve monetary objectives. Monetary policies affecting the central bank's assets ( $G^1$  and  $B$ ) also have relatively smaller effects on money in a developing than in an already developed country. The adjustment process of using open market operations and direct control of the level of loans to commercial banks does, however, avoid the drastic features of large changes in the required reserve ratio and the substantial adjustments these force upon the commercial banks.<sup>11</sup>

### III. OPEN MARKET OPERATIONS

Open market operations are the principal means of implementing monetary policies in most developed countries, but there are several major restraints on their use in developing economies. The most important limitation stems from the distribution of government debt. In many countries little, if any, government debt is held by the non-banking private sector.<sup>12</sup> Fiscal policy determines the amount of total government debt, which must be virtually divided between the central bank and the commercial banking sector. Some central banks have authority to issue their own bonds, but this does not provide an extra degree of freedom in attaining monetary objectives unless the bonds are widely held by both the banking and the non-banking private sectors.<sup>13</sup> Hence tripartite transactions in government securities among the central bank, the commercial banks, and the non-banking private sector are excluded because sales are limited between the central bank and commercial banks. If used effectively, however, this reduced market would still give considerable manoeuvrability to the monetary authorities, but further restraints are self-imposed.

Governments are often unwilling to permit the central bank to create the conditions under which a real market for securities can exist. They frequently feel that the price for government bonds must remain within a narrow band of stable and relatively low interest rates, unrelated to those outside the supervised money markets.<sup>14</sup> This results in part from a belief that stable prices and re-

<sup>11</sup>In the long run the efficiency of all monetary policies can be increased if the money multiplier becomes larger. This can be accomplished by encouraging the expansion of banking facilities, which will cause the currency/money ratio to decrease, and by creating a stable financial climate so that the reserve ratio ( $r$ ) decreases also; both will tend to increase the money multiplier and enhance the effectiveness of every monetary measure.

<sup>12</sup>An article in the International Monetary Fund's *International Financial Statistics*, 13 (October 1960), p. ii, gives a distribution of the ownership of government debt for 26 countries; they are ranked from the lowest to the highest with respect to the percentage of government debt held by the non-banking private sector. It is not surprising that the ranking is roughly similar to that which would arise if they were ranked from the less to the more financially mature countries. But exceptions stand out. In both Germany and New Zealand the non-banking private sectors hold less than 25 per cent of government debt while the commercial banks hold approximately 50 per cent, a situation which impedes transactions in government securities between the central bank and the non-banking private sector.

<sup>13</sup>The central banks of Argentina and Ceylon have used their authority to issue their own bonds; for a discussion of their effectiveness see Bloomfield, *op. cit.*

<sup>14</sup>See U Tan Wai's ground-breaking studies, "Interest Rates in the Organized Money Markets of Underdeveloped Countries," *IMF Staff Papers*, V (August 1956), pp. 249-278, and "Interest Rates Outside the Organized Money Markets of Underdeveloped Countries," *IMF Staff Papers*, VI (November 1957), pp. 80-142.

latively low interest rates are a sign of respectability and engender domestic and international confidence whereas high rates impede investment and allow the commercial banks unnecessarily high profits. Because the banking sector as a whole must absorb virtually all of any new government debt issued, central banks often prefer using moral pressure to ensure that the commercial banks will hold their "fair share," rather than inducing them to do so through a market mechanism. The cost of such policies is that open market operations becomes an ineffective tool of monetary policy.<sup>15</sup>

Such situations are not inevitable, but unfortunately they are typical of many developing countries. The limited nature of their security markets, combined with a low money multiplier, results in the necessity of larger open market transactions in order to achieve the same effects on the money supply for a developing country than for one already financially mature. This means that if open market transactions are to be effectively used, such countries must be willing to permit fluctuations of interest rates over a greater range than has been normal among most developed countries; so far the number of countries willing to do this is limited. But with a growing experience and awareness that the disadvantages of not developing a workable market for government securities (involving as it must fairly frequent and large changes in interest rates) are even more detrimental to the ultimate objective of enhancing economic stability, more countries are beginning to move toward greater reliance on market mechanisms to achieve their monetary objectives. However, until a fully developed tripartite system is created, open market operations will necessarily remain a more limited instrument of monetary policy in a developing than in a financially mature economy.

#### IV. CENTRAL BANK LOANS TO COMMERCIAL BANKS

The remaining traditional instrument—control of commercial bank borrowing from the central bank—can be an extremely important and effective instrument; indeed it is thought by some to be the most powerful one in a developing economy.<sup>16</sup> Unlike variations in the required reserve ratio, controlling the amount of commercial bank indebtedness to the central bank is similar to an open market operation, because individual banks are free to increase or decrease their borrowing and hence can influence the multiplier powers of total bank reserves.

If this is to be an effective instrument, at least one condition must be met: the quantity of commercial bank borrowing from the central bank must be large enough so that variations can produce the desired change in commercial bank reserves. There can be no absolute minimum, but certainly a high percentage of borrowed reserves improves the likelihood of this instrument's success. In some countries (e.g., Columbia, Nigeria, Pakistan, and Turkey) commercial bank borrowing from the central bank is more than twice as large as total (gross) commercial bank reserves, clearly indicating that this instrument could be effectively used there; in many others the ratio exceeds 100 per cent

<sup>15</sup>Pakistan is an excellent case in point. See Richard C. Porter, *op. cit.*

<sup>16</sup>Dorrance, *op. cit.*, p. 278.

(e.g., Greece, India, Morocco, the Philippines, and Spain). In only a few countries is the ratio less than 25 per cent (e.g., Brazil, Ceylon, Ecuador, Iran, Korea, Peru, and Portugal), suggesting that it might be quantitatively more difficult for them to use this instrument effectively.<sup>17</sup>

Controlling the amount of commercial bank borrowing from the central bank can be accomplished in two ways: either by varying the interest rate charged by the central bank or by direct quantitative controls. The first has the advantage of leaving individual commercial banks free to make their own choice about borrowing from the central bank, based on the cost of borrowing and their expectations about their customers' demand for loanable funds. It must be recognized, however, that relatively high discount rates are likely to be required in order to make this method workable. It is well known that central bankers feel they are part of an international banking community and consequently have a strong desire to maintain interest rates generally, and their own discount rate specifically, well within an "acceptable norm," a rate at which demand is likely to be well in excess of the desired level. The central bank discount rates published in the IMF's *International Financial Statistics* confirm this view; only two countries use discount rates which are high enough to suggest they are important factors which determine commercial bank borrowing, Korea (28 per cent) and Nationalist China (13.3 per cent). A few other countries use rates of 7-9 per cent, which conceivably could be high enough to be a determining factor, but most of these are Latin American countries where the normal rate of inflation substantially reduces their possible importance (and in some cases implies negative real interest rates) and where central bank credit is rationed by quota allocations.

The conclusion is clear: if central banks are not willing to adopt discount rates high enough to influence borrowing decisions, then direct quantitative controls are the only alternative. The argument against these controls is that they have to be specific and thus tend to encourage rigidity rather than flexibility in the banking system. Also, they necessarily entail greater administrative surveillance than does the automatic working of an interest rate to regulate market demand. Such a system is really no more than central bank direct regulation of commercial bank lending, because it requires an intimate relationship and frequent contacts between the central bank authorities and the directors of individual commercial banks. One can imagine the usual array of undesirable consequences often associated with direct bureaucratic controls, but it may be the only *acceptable* manner of exercising adequate control over central bank credit. Every effort must be taken to make the system of quantitative controls flexible and coordinated with other economic objectives, one of which may be to control both money *and* commercial bank lending to the private sector.

## V. CONTROLLING BOTH MONEY AND COMMERCIAL BANK LOANS

The monetary authorities in most countries feel that they are responsible for regulating the volume of money and credit, although often they do not make

<sup>17</sup>Data from International Monetary Fund, *International Financial Statistics*, XXI (September 1968). Dorrance says that in 1963 in "almost half of the 81 countries for which data are given in *International Financial Statistics*, credit from the central bank to the deposit-money banks was equal to at least 10 per cent of money," *op. cit.*, pp. 278-79.

clear whether they mean managing both simultaneously *and* independently, or merely one or the other. Traditional theory, as developed in relationships (1) through (8) appears to imply that both money (C+D) and commercial bank credit ( $G^2+L$ ) can be controlled independently, if the central bank is willing to use forcefully at least two of the three available traditional instruments (open-market operations, variable reserve requirements, and discount policy.)<sup>18</sup>

Curiously enough the literature on monetary policy, its instruments and goals, does not contain a concise discussion of the fundamental question: can the three traditional instruments control money *and* credit simultaneously? Excellent theoretical and practical considerations explain why the three traditional instruments are not independent; for a given set of values there will exist a unique pair of equilibrium values of money and credit, rather than a variable and determinate relationship between money and credit which can be controlled by using an appropriate combination of two or more of the traditional instruments. The International Monetary Fund's view has always been that more instruments are needed; Polak has discussed this issue indirectly, and Dorrance and White have argued that different kinds of specific ceilings are required to achieve simultaneously more than one objective.<sup>19</sup> Katz has described why the European central banks after 1958 were forced to innovate by creating additional policy instruments to manage domestic credit *and* international reserves simultaneously, albeit with mixed success.<sup>20</sup> In the United States, where balance of payments considerations and fluctuations in international reserves have never dominated monetary policy, the Federal Reserve has sometimes emphasized controlling credit (more often than not), sometimes money, and sometimes it has said that its responsibility was to control the two simultaneously (and by implication independently).<sup>21</sup>

Unlike those European countries which have developed monetary policies, to control domestic credit and international reserves simultaneously, the developing countries can be characterized as closed economies because their exports do not depend substantially on domestic demand considerations, and their imports are generally controlled via various forms of quotas and rationing arrangements. The range from completely closed to entirely open economies does, of course, exist among the developing countries. The island-

<sup>18</sup>For independently chosen levels of money (C+D) and commercial bank credit ( $G^2+L$ ), open market transactions can assure that the central bank holds the necessary amount of government securities ( $G^1$ ) to fulfill the credit-money requirement of identity (7). Given whatever  $G^1$  this implies, by varying either its loans to commercial banks (B) or the required reserve ratio, the central bank can determine independently the volume of money desired through the relationship (8).

<sup>19</sup>J. J. Polak, "Monetary Analysis of Income Formation and Payments Problems," *IMF Staff Papers* VI (November, 1957), pp. 1-50, and Graeme S. Dorrance and William H. White, "Alternative Forms of Monetary Ceilings for Stabilization Purposes," *IMF Staff Papers* IX (November 1962), pp. 317-342.

<sup>20</sup>Samuel I. Katz, *External Surpluses, Capital Flows, and Credit Policy in the European Economic Community 1958 to 1967*, Princeton Studies in International Finance No. 22 (Princeton: University Press, 1969).

<sup>21</sup>Lawrence S. Ritter, "Official Central Banking Theory in the United States, 1939-61: Four Editions of the *Federal Reserve System: Purposes and Functions*," *Journal of Political Economy*, 70 (February 1962), pp. 14-29.

type economies are generally completely open with respect to both trading and capital flows which pose additional constraints on the range of independent monetary management (e.g. Singapore, Hong Kong, Cyprus, Malta, Bahama Islands), but the vast majority of developing countries are relatively closed economies.

Similar to some developed economies, the developing countries recognize the necessity to manage money *and* credit simultaneously. Furthermore, there are good reasons why a developing country, even more than a financially mature one, will want to regulate not *total* commercial bank credit but only that portion which provides loans to the private sector; and within this portion, it is likely to want to influence the allocation to particular categories of borrowers in order to make sure that funds go where their productivity will be the highest. Most commercial banks in developing countries, however, continue to concentrate mainly on providing short-term credit to a limited number of large and conservatively managed establishments where risks are low;<sup>22</sup> they are hesitant to diversify over a broader spectrum of borrowers where risk elements are likely to be considerably higher. But the need to provide longer-term credit to new enterprises is important; the commercial banks with their long lending experience, are better suited to adapting their traditional role to meet this need than is the central government equipped to administer the allocation of development loans, either directly or by creating investment banks which sometimes become mired in the conflict between allocating funds according to potential profitability and political considerations.<sup>23</sup> The commercial banks, however, will not accept this new responsibility without economic inducements and some direct controls.

Clearly, general monetary policies relying only on the traditional instruments are inadequate to achieve this objective. Even simultaneously controlling the total volume of bank credit to the private sector and the money supply are not feasible objectives under the conditions described thus far, as the money-credit identity of relationship (7),  $G^1 + G^2 + L = C + D$ , makes immediately clear. If fiscal policy determines the total amount of government debt, which must be absorbed by the central and the commercial banks, then the sum of  $G^1$  and  $G^2$  is predetermined and outside the control of the monetary authorities. The monetary system at best permits controlling either credit to the private sector ( $L$ ) or the money supply ( $C + D$ ), but not both simultaneously. As illustrated previously, changes in the amount of bank credit are likely to be relatively larger than changes in the money supply, which can have important consequences. Many developing countries occasionally overheat their economies when they attempt to achieve high growth rates. This leads to stabilization policies aimed at dampening over-all demand by slowing or reversing the rate of growth of money. But this necessarily dries up bank loans to the private

<sup>22</sup>On 31 March 1959, 63 per cent of total bank credit in Pakistan was retained by only 222 accounts, according to the government of Pakistan's *Credit Enquiry Commission Report* (Karachi, 8 September 1959), p. 5. The monetary authorities of Pakistan have proudly noted the complete absence of bank failures since independence.

<sup>23</sup>See, Shirley Boskey, *Problems and Practices of Development Banks* (Baltimore: The Johns Hopkins Press for the International Bank for Reconstruction and Development, 1959), pp. 53-7.

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sector at an even faster pace and reduces the amount of loanable funds available to create eventually the needed additional productive capacity which ultimately is the only means whereby excessive demand can be eliminated in a growing economy.

If both money and credit are to be controlled simultaneously, and if commercial banks are to be induced to allocate their loanable funds in greater accord with priorities determined by the government, two things are essential: (1) the traditional instruments must work as effectively as possible, and (2) additional selective instruments must be created to supplement the traditional instruments. The effectiveness of both variations in the required reserve ratio and open market operations of the traditional tripartite kind depends upon the general development of financial behaviour, and government efforts to make them more effective can be marginal at best (although even for the present stage of development no country uses open market operations as efficiently as possible).

It would be utopian to think that the developing economies can hope to achieve what the financially mature countries have not been able to do, i.e., the simultaneous control of both money and commercial bank lending to the private sector. Nevertheless, they can make some progress towards this objective by making every effort to broaden the market for government securities and to establish appropriate selective credit policies which are integrated with their planning aspirations.

One further improvement is possible. Time deposits are an important financial instrument in every country, but in a developing one they take on particular importance, because the range of alternative uses of personal savings is very limited: cash, demand deposits, land, and house building are the main possibilities, plus reinvestment in individual enterprises. Due to the risk elements of the latter two items, time deposits are usually a principal means of accumulating household savings. While time deposits depend heavily upon the level and rate of growth of personal saving, nevertheless, interest rates and other forms of incentives can be used to regulate partially, if not completely, their level. To the extent that some independent control is gained over their determination, the monetary authorities can realize greater flexibility in their attempt to achieve an optimum combination of money and bank loans.

## VI. SUMMARY AND CONCLUSION

The conventional theory of monetary policy, which was developed mainly from conditions prevailing in the United States and Britain needs to be modified in order to reflect the structural and behavioural characteristics of a typical developing country. For individual countries the theory must be further modified, to incorporate their own particular sets of determining factors.<sup>24</sup>

The developed countries, using only the traditional instruments of monetary policy such as open market operations, variations in the required reserve ratio, and controls on commercial bank borrowing from the central bank, can at best control either money or commercial bank loans to the private sector; many

<sup>24</sup>See, Snyder, *op. cit.*

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developing countries will not find this sufficient. In their efforts to regulate both money and bank loans, the monetary authorities need a greater variety of instruments, both traditional and specific, than is used by the developed countries. Although this need inevitably introduces a greater reliance on quantitative controls than on the market to make the appropriate allocation of loanable funds, that may even be an improvement, because commercial banks tend to avoid making risky loans and confine themselves to lending to conservative and well-established firms, letting excess reserves accumulate if their rigid criteria for a "bankable" loan are not met. In order to achieve a better allocation of loanable funds, the central banking authorities need to use a wide variety of regulated interest rates on time deposits, on their loans to commercial banks, and on the latter's loans for various purposes.

The potential effectiveness of monetary policy is more limited in a developing country than in one already financially mature, if reliance is placed on the traditional instruments alone. But if enough other instruments are employed, without creating too many conflicting objectives, then monetary policies can make a more positive contribution to the ultimate objective of greater economic stability and growth.

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