

ΣΠΟΥΔΑΙ

Τριμηνιαία Έπιστημονική Έκδοση της Άνωτ. Βιομηχανικής Σχολής Πειραιώς

ΕΤΟΣ 1982	ΑΠΡΙΛΙΟΣ — ΙΟΥΝΙΟΣ 1982	ΑΒ΄ ΤΟΜΟΣ	ΑΡΙΘΜ. ΤΕΥΧΟΣ 2
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MOBILIZATION OF SAVINGS FOR DEVELOPMENT : A RESTATEMENT*

By THEODORE HITIRIS and JACK WISEMAN University of York England

I. INTRODUCTION

Saving has been regarded as a key growth performance indicator. However, the correlation between saving and the rate of growth of income is not strong, nor can countries be ranked in their growth performance by their saving performance. The reason for this is that the transmission of savings to investment can be incomplete. In developed countries planned saving is not necessarily equal to planned investment, and this results in unemployment of productive factors and slow growth. Similarly, underdeveloped countries can also experience slow growth caused by insufficient effective demand, but in addition to this their financial markets are usually imperfect, so that not only the level of saving is inadequate but also the percentage of this saving that reaches the market for investment is relatively low. The reason for this is that in LDC many households save (and invest) in tangible, unproductive assets. This pattern of saving arises mostly from market deficiencies. The institutions for the transmission of savings to productive investment are in many cases few and ineffective, while political and financial instability undermine the confidence in the market and influence the decisions of both savers and investors. The relationship between saving and growth is therefore more

* This paper is a revised version of a Working Paper (Wiseman and Hitiris, 1980) prepared for a United Nations Symposium. The argument and conclusions are of course our own : they are not endorsed by the United Nations (and indeed are probably not accepted by them).

Complicated than is commonly suggested and increases in the saving ratio do not necessarily improve the growth - performance of countries.

The experience of the last 25 years confirms that : a) Despite impressive efforts and international co-operation, the rate of growth of income in developing countries has remained low. and b) that, on the whole the bulk of the financing of investment in LDC^s has been provided by the domestic resources of the developing countries themselves. There are of course a few, but not unimportant exceptions, that is countries that have depended primarily on foreign sources for their development. At the moment, the prospects of significantly increased net inflows of foreign resources do not seem particularly encouraging. Hence, countries that had expected to accelerate their growth through increased foreign financing of their investment would have either to curtail their plans or substantially increase domestic sources of financing. With a constant or declining contribution of finance from foreign sources the problem of growth reverts to the familiar closed — economy type of theoretical models, which suggest that, in equilibrium capital and income would increase *pari passu*, and that the rates of growth of planned saving and investment are equal. Consequently, the limit to the equilibrium rate of growth of output in developing countries will be set by the rate of growth their domestic savings. Therefore, development requires the mobilization of savings. The mobilization of saving is here defined to embrace policies designed to increase the saving propensity and also policies concerned with the rechanneling of savings to facilitate the desired allocation of investment. The central theme of this paper is that the mobilization of savings in developing countries is a policy objective for two distinguishable but not mutually exclusive reasons : In the market institutions for the mobilization of savings are functioning efficiently, then the rate of saving will be the result of individual preferences between present and deferred consumption, and individual judgements as to the yield (in terms of future consumption possibilities) to be expected from current abstention. In such circumstances, there can be a policy (savings mobilization) problem, only if the government has preferences between present and future consumption which are different from those of individuals. The obvious example would be if the government attaches a relatively higher value to future *vis a vis* present consumption than do individuals. If the government also believes that the rate of growth of community output is positively correlated with (or constrained by) the level and the composition of investment, then it will wish to take steps to adjust the outcome of individual saving and investment decisions. The second reason accepts the predominance of individual preferences : the «right» rate of savings is accepted by the government to be that desired by individuals. But for individual preferences to be satisfactorily implemented, the market institutions through which

those preferences are translated into savings decisions must exist. The institutional (market) arrangements for the «processing» of saving may be an important influence on both the size and the character of private savings and the size and character of private investment, and policies directed to the improvement/extension of these institutions may be a fruitful way of generating a higher rate of growth of GNP (which we take to be the purpose of savings—mobilization). Consequently, the efficiency of market institutions for the mobilization of savings and their translation into productive investment is the second general topic of this paper.

Investigators attempting to test hypotheses concerning the sources of, and obstacles to economic development face two ineluctable problems : the specification of an appropriate theory of development, and the collection of reliable data relevant to its appraisal (Wiseman and Hitiris, 1980). There is a variety of theories to choose from, ranging from the Harrod—Domar type «growth models» to Rostow—type «take off» theories. Insofar as these models have anything conceptually in common, it is the notion that the availability of savings is a precondition of continuing growth, and that, lacking a more specific analysis, the models appropriate to developed countries can be extrapolated to explain the problems of the LDCs. So far as data is concerned there are major problems both of standardization and of reliability. Consequently, empirical research has neither proved nor disproved that saving is the key performance indicator of developing economies. Moreover, studies relating saving to income in LDC^s have not provided a consensus in support of the major theories of consumption/saving which have been formulated and tested for developed countries (Migesell and Zynser, 1973). Furthermore, no significant generalization can be made about the relation between stages of economic development and overall rates of domestic saving : International variations in saving performance appear to bear no systematic relationship to per capita income, while the sectoral origin of saving presents neither a uniform nor a stable relationship with the per capita income of countries or their growth rates. This simply suggests that the evidence of the existence of a causal relationship between income, saving, investment and economic growth in LDC^s is at best impressionistic and this, along with past experience, supports the view that the saving/investment process may be as functionally important to growth as the levels of savings per se. Subject to these qualifications this paper is based on the following premises : i) The level of income is one of the determinants of the volume of aggregate saving, ii) Aggregate saving and foreign and foreign financing are two of the factors that might affect the potential of an economy to grow, iii) Hence, the possibility of high growth rates in times of decrea-

sing financing from foreign sources will increasingly depend on domestic savings and ultimately on domestic income. However, the realization of high growth rates depends on the ability of the economy to channel adequate savings into productive investment. Section II of this paper examines the structure of financial markets and the nature of government objectives in LDC. Section III examines policies for the mobilization of savings in LDC. The conclusions of the study are presented in Section IV.

II. FINANCIAL MARKETS AND GOVERNMENT OBJECTIVES IN LDC^S.

The Keynesian analysis treats saving as a function of income and income as a function of investment. Modern growth—models have, however, restored the neoclassical view of saving as a determinant of investment and investment as a determinant of the rate of growth of income in a process of saving—investment—income—saving. Hence, the alleged importance of the saving ratio emerges as a constraint on growth. What these growth models assume is that saving and planned investment will match and that resources, including capital, will be fully utilised. It is important to realize at this stage that the postulation of a relationship between saving and growth is an act of faith rather than an empirically verified proposition. Developed economies that presumably have no problems with the level of their saving ratios or the mobilization of their savings frequently experience unemployment of productive factors, slumps and stagnation so that equilibrium growth is essentially a hypothetical possibility which occurs along «straight and narrow paths from which the slightest deviation spells disaster» [Tobin 1955, p. 103]. On the other hand, in the typical underdeveloped country it is frequently the case that desired investment and saving are not equalised, the existing stock of capital is left idle most of the time [Winston, 1971 ; Healey, 1972], and labour remains permanently unemployed and underemployed. It is in these circumstances rather preposterous to assume that potential investors are queuing for funds and that the supply of savings is the only constraint on rapid economic growth. In the LDC^S deficiencies exist in both the organisation of saving and investment activities and the structure of financial intermediation.

By financial intermediation we mean the process of collecting savings by financial institutions and their rechanneling to investors. A developed financial market should provide actual and potential savers and borrowers with the opportunity, the choice and the information necessary for deciding the allocation of saving and investment within a competitive system. Financial intermediation becomes

necessary when there is asymmetry in the current expenditure accounts of the individuals and organisations of a community, and the level of economic organisation is too complex for potential borrowers and lenders easily to transact directly with one another. The character and development of the system of financial intermediation is clearly linked intimately with the development of the monetary system, without which it cannot function. Commonly, money and credit arise in the economy both through the policies of the monetary authority and through the activities of financial intermediaries. The latter may attract funds that would otherwise have been idle or used in consumption and thereby may increase the total amount of saving available to borrowers. Whether the outcome of this process will be an increase in investment and growth primarily depends on how borrowers allocate their funds. On the investment side, financial intermediation provides the borrower with an outlet for selling the particular type of securities he decides to issue. Thus, investment is not inhibited by the availability of internal financing. Moreover, by diffusing the sources of financing investment projects, financial intermediation serves as a means of spreading the risk of new investment and so encourages ventures of high expected value which otherwise would not have been undertaken. Diversification of financial intermediation would in principle mean that a greater fraction of total savings would be channeled into investment through the financial market. This would in turn bring more projects into competition for investment funds so leading to a more comprehensive evaluation of investment plans and thereby to a more efficient allocation of resources. The integration of the market for funds and the increased competition for them will raise overall efficiency [Gurley and Shaw, 1955, 1956].

Financial intermediation may affect the volume as well as the form of savings, by providing the market with the diversification of claims that will meet the precise liquidity needs of the savers. The existence of adequately developed financial markets also means that the decision to save and the decision to invest need not be taken by the same economic unit. Hence, saving emerges without the concomitant act of investment and thus the saver faces less uncertainty than in his dual role of saver—investor. In countries with developed financial markets the savings of the household sector generally account for more than half of the supply of funds. Investment, however, is mostly undertaken by the government and the corporate sectors. The government sector usually acquires most of its investment funds through fiscal and monetary policy. Firms finance investment in one of three ways : either they use funds accumulated by their own saving from retained profits and depreciation ; or they borrow from banks and through the bond market at a fixed interest ; or they borrow in the stock market through equity financing. At the early stages of development, self—financing (along with financing

from foreign sources) is the general rule. But as growth proceeds, «outside» domestic financing becomes increasingly more important. Sustained growth thus depends to a large extent upon the proportion of household saving that enters the market for investment funds and upon the smooth functioning of that market. If saving funds fall short the investment plans, because either saving is in general inadequate or only a proportion of it becomes available to investors, directly or through the financial market, major bottlenecks are imposed upon the process of capital formation and development. Self—finance, which is limited by the saving capacity of the investor, constrains both the direction of investment and the rate of growth of income and can frequently lead to resource—misallocation. This happens when corporate investment is self—financed out of undistributed profits or purchase of shares in family and private concerns without entry into the financial market. In these circumstances there is no price mechanism for monitoring the direction of investment which under these conditions can mean prolonged misallocation of valuable scarce resources.

The positive relationship between saving and the rate of interest, which classical theory assumed to exist, has not been established by empirical research. For the few underdeveloped countries in which it was possible to study this relationship, the net impact of the real interest rate on aggregate savings was found to be insignificant or even negative, suggesting that higher rates of interest are associated, if anything, with lower real saving [Williamson, 1978]. This paradox can occur in LDC^s if the saving and investment decisions of the household sector are interdependent [Huedle, 1979]. Then, to the extent that saving is motivated by investment plans, higher interest rates might discourage both household investment and household saving. However, while there is no firm evidence of a positive relationship between rates of interest and saving, what is not in doubt is that interest rates are significant in determining where savings will be directed. In fact, it has been established for both developed and developing countries that, when interest rates differentials occur, existing savings are transferred from low to high yield accounts.

In a simple exchange—type economy with a monetary system and without a financial market, saving is often accumulated in tangible assets or stocks of money. The tangible assets more frequently chosen possess the characteristic that in the economy concerned they are marketable, that is they possess some degree of liquidity. Thus, accumulation in precious metals, livestock, real estate etc. suggests the existence of somewhat developed markets where these goods can be used as a medium of exchange. Saving in this form affects both the overall level and the mobility of the assets. Once a certain level of accumulation is reached the

incentive to save more may weaken, while lending and borrowing in tangible assets is only possible on a person—to—person basis. Thus, this pattern of saving and investment militates against development and, although it is motivated by the propensity to save, its effects are similar to the effects of consumption : Decisions to save are merely decisions to stockpile, [BRUNTON, 1965], that is to withdraw resources from the production process.

Once a saving unit has decided how much to consume and how much to save out of its disposable income, it has to decide whether it will enter the financial market and, in the case of a positive answer, whether it will participate as a lender or as a borrower. The consumer weighs subjectively the risks involved and the rewards gained in offering his savings in the market. Corporations decide whether to retain their savings for self—financed investment, to borrow more in the market, or to offer their savings to other units in the financial market which face a deficit in the financing of their investment plans. Having decided that income is the main determinant of the volume of savings of households (and profits the main determinant of the volume of savings of corporations), we now suggest that at a given time the maximum volume of financial assets available in the economy is given and determinate. But how much will actually be supplied in the market depends on the rate of interest. Consider, for example, a household in a LDC which has decided to save a certain proportion of its disposable income, and is concerned solely with the adjustment of the composition of its savings portfolio to an interest rate adjustment of the composition of its savings portfolio to an interest rate change. The decision will be influenced by personal considerations : individual preferences, subjective evaluation of risk, and so on. It will be influenced also by the institutional situation : if for practical purposes the household does not have access to financial institutions, then interest rate changes cannot induce transfers between tangible and intangible assets. But the practical situation will be that, while transfer between the two sectors may be imperfect, at least some savers in LDC^s will believe themselves to have some practical choice between them. Thus, given constancy in the other influences on the form in which savings are kept, a rise in the interest rate will induce some transfer from tangible to financial assets. The higher the rewards in the financial market, the more will be the volume of tangible assets which, converted into financial assets, will be supplied in the market. When all the available savings have entered the market in the form of financial assets, their short-run supply becomes perfectly inelastic. Hence, the supply of financial assets is a positive function of the rate of interest, although saving probably is interest inelastic. Changes in real risks, or the attitudes of savers towards risks, and changes in the level of income shift the supply of assets, while changes in the rate of interest affect the volume of funds by movement along the same supply

curve. It is usually assumed that below a certain low level of the rate of interest, private savers and firms are not adequately compensated for the risks they incur and cease to offer their funds in the financial market. Firms in particular tend to impute a lower interest rate to funds which are internally available from retained earnings. Consequently, up to a certain point the interest cost of financing investment is roughly constant and the supply of funds curve has a flat segment.

The demand for investment funds constitutes part of the demand for financial assets. The demand for investment is derived from the demand function for capital which is a downward-sloping curve, signifying diminishing marginal productivity at the level of the firm, and declining expected net returns at the level of the industry. Cost of capital or interest rates facing a firm are in general many, depending on the extent to which it draws on various sources of investment funds, such as bonds, equities etc. Two problems may arise with respect to equilibrium in the market for funds : The market mechanism may determine the equilibrium rate of interest at a level either too low for the efficient mobilization of savings or too high for the realization of accelerated growth. More often than not this situation attracts government intervention based on the principle that intervention is required either to make the market work, or to prevent the market from working, that is to adapt the outcome to the government's own ends. The market does not operate efficiently if there are monopolies in the demand or the supply side, inflexibilities in the price mechanism and the free movement of resources, or if the financial market does not exist. Thus in the case of imperfections in the market, governments intervene to restore competition, mobility of the factors of production and smooth functioning of the price mechanism. If the financial market does not exist in certain regions of a country or for certain groups of the population, the government needs to create the conditions that will encourage the market to develop. The government needs to intervene to prevent the market from working, or to adapt the outcome, when the objectives of the government do not coincide with the objectives of the market participants, for example, when the government has a longer time horizon than savers and investors. Under certain conditions therefore, the government may intervene in the financial market if the short-run considerations of profit maximization by the market participants run counter to the desired dynamic path of economic growth. Thus, if growth considerations motivate the government to fix the rate of interest at a low rate, more financial assets will be demanded by investors than will be made available by savers, who will prefer to augment their savings in tangible assets. If the government favours the stimulation/monetization of savings and fixes the rate of interest at a level higher than the one market forces would have determined, saving in tangible assets will tend to decline and there may be an excess supply of investment

funds. The situation becomes even more complicated when we consider that the mobilization of savings is not always the primary objective of government intervention in the financial markets. The rate of interest is primarily an instrument of monetary policy, so that it may frequently vary for reasons other than those connected simply with the demand and supply of financial assets.

As with most markets in LDC, the financial market is frequently subject to imperfections which may prevent it from clearing. We have suggested that in this case also the government is expected to intervene to make the market work better. However, it is also frequently the case that the market imperfections are themselves government imposed. Besides the direct intervention in fixing the rate of interest at a level which may serve its own objectives, the government might distort resource—allocation by operating in the financial market as a lender or as a borrower. The relative size of government operations might then be such that it brings about changes in the level and structure of interest rates similar to those resulting from the operations of private monopolies. Furthermore, it is often found in LDC that governments conduct a discriminatory interest rate policy for different sectors of the economy or even different individual investors. Although this policy may be justified in certain cases, when the government's intention is to overcome inflexibilities in the financial markets or to correct distortions, in the context of underdevelopment the possibility of misuse of the policy leading to inefficiencies in the allocation of resources should not be discounted. Needless to say, in a similar way private monopolistic influences in the financial market may prevent the price mechanism from operating efficiently and affect the mobilization of household savings. Moreover, a low market rate of interest also discourages corporation savings from entering the financial markets. In situations of market imperfection firms frequently find that the internal rate of return on investment within the firm deviates substantially from the market rate of return and that it pays to enter the financial market as a borrower rather than as a lender. Although this may be the correct decision for the enterprise in the prevailing circumstances, it may lead to misuse of real economic resources. Attempts to rectify this situation should aim at improving the market mechanism rather than trying directly to influence the behaviour of savers and investors.

It is usually argued that the problems of promotion and mobilization of savings in LDC^S are caused by inadequacies in the structure of financial markets and the density of financing intermediaries (LEWIS, 1955 ; UNECAFE, 1952). Support for this argument has come from some empirical evidence that has shown savings to be responsive to the number, availability and efficiency of financial markets (U TAN WAI, 1972). In other words, the available empirical evidence

suggests that saving is «institution elastic» and therefore a higher density of financial institutions may evoke a greater volume of savings. The argument against these conclusions is that, by and large, 'enterprise leads, finance follows', and in any case 'the creation of new financial institutions is not a substitute for the necessary performance of real saving' (MEIER, 1964, p. 113 ; ROBINSON, 1952). Hence» the degree of development of the financial market is a reflection of the degree of development of the economy. However, it can be argued that instead of the establishment of financial institutions waiting on the emergence of adequate domestic demand and supply of loanable funds, the financial structure must be created in anticipation of the needs for credit and as an instrument for development. It is however important to be clear about the causes of the immobility of savings and the relationship between the structure of financial markets or financial intermediation and the mobilization of savings. We will argue that savings remain immobile for one or more of the following reasons : a) For a large section of the population of LDO the financial market does not exist; b) In many LDO financial markets are imperfect ; and c) Political and economic instability, the most prominent general form of which is inflation, have undermined the population's confidence in monetary and fiscal institutions. Consequently, an increase in the density of financial institutions is not necessarily the panacea for the mobilization of savings in LDCs. Equally, it is implausible to believe that the problems can be resolved or ameliorated without positive government policies or that these policies will not need to incorporate the positive stimulation of financial—institutional innovations rather than waiting for these to emerge from the growth—process. There is no doubt that there is a close positive relationship between a country's financial system and its per capita income. An essential condition for economic growth is the organization of exchange, that is the establishment of a workable monetary system and the basic fundamentals of a financial market (CAIRNCROSS, 1962). As economic growth proceeds, the size and complexity of the financial system increase and the structure of the financial market develops. At present, in many underdeveloped countries the monetary system is still unable to cope with the requirements of development while in many sectors of the economy persistent distrust of currency and financial assets means that money substitutes or even barter still remain the commonest media of exchange. The factors for the persistence of this phenomenon are manifold. Despite all efforts, certain regions of LDO have not experienced any development as yet. But even where development has started, monetary developments proceed at a very slow pace. Monetary confidence evolves under conditions of political stability and social order and it is built up gradually with successful performance over time. Economic instability and inflation which were already endemic in many underdeveloped countries have in recent years worsened as the international monetary system has collapsed and inflation,

originated in the developed countries, has spread through international trade. Consequently the relatively weak monetary systems of LDC^S now suffer both from internal instability and from the internationalization of economic crisis. The monetization of underdeveloped economies and the growth of financial markets are thereby retarded (ROBERTS, 1971 ; MCKINNON, 1973).

In many LDC^S countries a dualistic process of development is occurring so that a modern money economy and a modern financial market operate alongside a traditional sector of elementary exchange and credit system. The channels of economic communication between the two sectors are usually few or non-existent thereby restricting the mobilization of resources and retarding the rate of development. This parallel market for lending and borrowing outside the country's financial institutions is occurring partly because the participants are unwilling or unable to enter the formal financial market and partly because the financial institutions are reluctant to extend credit to rural areas, thereby contributing to the misallocation of resources. Consequently, in rural areas informal credit is usually very extensive and, at the exorbitant rates charged and paid, very expensive as well. Therefore, hoarding is not as unreasonable as at first it may seem : it is cheaper to hoard than to face the possibility of borrowing from moneylenders who, provided they will be willing to lend, will charge very high rates of interest. These high interest rates reflect in fact the imperfections of the supply side of the market and the disproportionately large size of the demand for credit. Informal credit markets are as a rule more monopolistic than formal financial markets and loans are usually granted on a personal basis. The money lenders do not operate as intermediaries collecting savings and channeling investment funds ; they usually lend from their own capital and savings. Consequently, the supply of funds is limited and inelastic. Since the unorganised market is not closely connected with the formal money and credit market, there is little possibility that funds can be transmitted from the one market to the other to alleviate the occurrence of bottlenecks. Therefore as a rule there is no relationship between the interest rates charged in the two markets and no leakage effect from the price mechanism of the organized market to the unorganized market. Under these conditions of credit, households in rural areas probably need to save more and to keep a higher ratio of liquid assets and cash balances than households with easy access to formal financial institutions. Furthermore, as a hedge against inflation and for added security lenders in the unorganised money market may demand payment in kind, thus encouraging saving and accumulation, borrowing and lending in tangible assets (PATRICK, 1966).

Inflation, indigenous and imported, of the type LDC^S experience nowadays

undermines both the monetary foundations of the economy and the development of financial markets. Under inflation monetary and credit policies are faced with problems much more intractable than the problems of saving, investment and growth. In the underdeveloped country the sector most harshly affected by inflation is the modern one, where most of the development occurs. The rural sector with little or no contact with the monetized market will be only moderately affected by rising prices. There are two harmful effects usually associated with inflation : a) Inflation discourages voluntary saving b) Inflation results in suboptimal allocation of investment. Hence, according to our definitions, inflation inhibits the processes making for the better mobilization of savings.

Inflation means that the value of money is declining. The major functions of money are to act as a medium of exchange, as unit of account, and as a store of wealth. To be a satisfactory store of wealth, money must have a stable value. If prices are stable then one knows how much command over real goods and services has been stored up when a certain sum of money has been accumulated. Consequently, during inflation or when inflation is anticipated, households will run down their cash balances and liquid assets and acquire goods. This in fact means that inflation will change the pattern of the distribution of total savings between financial and tangible assets, but it does not necessarily imply that total savings will be reduced. Recent studies of saving behaviour in developed countries have actually shown that savings may increase during periods of inflation. Whether the same applies to LDC does not affect the fact that inflation influences the form of saving, inducing accumulation in assets that possess built-in inflation insurance. This is exactly what most financial assets do not possess. Inflation reduces the value of deposits because administered interest rates are as a rule lower than the rates that are necessary not only to provide some satisfactory yield, but also to compensate for losses in real value. Table 1 presents the rate of inflation, the rate of interest and the real rate of interest for a number of LDCs during the period 1970 - 74. Only two from the 26 countries of Table 1 provide the saver with a positive but very low real rate of return. For the remaining 24 countries of Table 1 the real rate of interest ranges between -0.50 per cent and -208.50 per cent. This situation which was exacerbated after 1974 when accelerated inflation was coupled with the oil crisis, probably diminishes the desire to save and lend in financial assets. The reason is that increases in the price level, [benefit debtors and harm creditors. Hence, inflation by inducing the substitution of financial by tangible assets both reinstates the decision to invest in unproductive assets to the saving unit and reverses the process of monetization to the detriment of economic development.

Inflation tends to encourage borrowing and investment. Assuming that invest-

TABLE 1. Real Rate of Interest in Certain Countries, 1970 - 74

Country	Inflation Rate (wholesale prices, compound rate)	Discount Rate of Interest (mean value of the period)	Real Discount Rate of Interest
Bolivia	21.10	19.00	-2.10
Chile	242.30	33.75	-208.55
Colombia*	17.45	14.50	-2.95
Ecuador	13.00	8.00	-5.00
Egypt**	1.60	5.00	+3.40
El Salvador	13.00	6.10	-6.90
Ghana**	13.50	8.00	-5.50
India	14.20	7.00	-7.20
Iran	10.00	7.40	-2.60
Ivory Coast*	6.50	4.50	-2.00
Jamaica	14.40	6.80	-7.60
Jordan	10.55	5.00	-5.55
Korea	17.10	12.25	-4.85
Mauritius	11.50	6.00	-5.50
Mexico	10.90	4.50	-6.40
Morocco	7.30	3.50	-3.80
Niger	7.20	4.50	-2.70
Nigeria	9.20	4.50	-4.70
Pakistan	16.00	7.00	-9.00
Peru	10.00	9.50	-0.50
Philippines	25.10	10.00	-15.10
Senegal*	7.80	4.50	-3.30
Sri Lanka*	7.70	6.50	-1.20
Thailand	14.40	9.50	-4.90
Turkey	21.10	8.90	-12.20
Venezuela	4.70	5.00	+0.30

* Consumer prices

** 1970 - 73

Source: IMF Financial Statistics, 1977.

ment funds will become available to investors, for example from internal savings, capital formation is increased by inflation, but misallocation of resources is unavoidable. This occurs because investors attempt to benefit in the short-run by exploiting rising prices rather than by long-run productivity considerations. In other words, the rate of interest in an inflationary environment is an ineffective instrument for directing resources to optimal use. This is not to say that inflation has not been deliberately used as the instrument for increasing the pace of capital formation. However, a policy of administered inflation depends for its success on a degree of fiscal and monetary sophistication that is rarely present in LDCs. Moreover, accelerated inflations of the type recently experienced cannot easily be administered even by sophisticated economies.

Inflation tends to redistribute income from fixed-income recipients to the corporate sector. Since the corporate sector's propensity to save is usually greater than that of other sectors, total savings and probably investment may rise with the rise in prices. Investment will certainly rise if the development plans a process in are directly financed by the government through increases in the supply of money, that is by inflation.

But inflation as a policy for inducing growth cannot be used indefinitely, while its demaging effects on the financial markets are longlasting. Growth, which is time, will be better served by a steady increase in the accumulation of capital than by a price explosion.

III. POLICIES FOR THE MOBILIZATION OF SAVINGS IN LDCs

We have defined the mobilization of savings as the process of raising the saving ratio and channeling savings towards investment.

Consequently, the mobilization of savings entails three distinct operations : firstly, the increase in the saving ratio ; secondly, the process of collecting savings from the savers ; and, thirdly, the process of transmitting savings to borrowers for investment. The analysis of economic behaviour in financial markets has suggested that there might be inherent characteristics in the economic structure of LDCs that prevent them from reaching the desired saving ratio and an efficient allocation of real resources. We have argued that the crucial problem in the context of growth is the divergence between the realized level of investment which the economy achieves through the market mechanism and the direction and level of investment which the government considers socially desired. Consequently, the

mobilization of savings aims at the realization of a growth—objective, which the market has failed to reach for one or more of the following reasons : a) the saving ratio is too low ; b) the transmission of savings to investment is imperfect ; and c) the allocation of investment is not consistent with the government plans. The purpose of the analysis in the present section is to suggest integrated policies which, if they are successful, can lead a country towards the realization of its objectives.

The prevailing conditions in the financial markets of LDC^s dictate that both supply and demand will be fairly inelastic. Low levels of income imply low absolute levels of savings, while instability and uncertainties result in a low ratio of financial to tangible assets. The existence of underutilized capacity and the lack of complementary factors of production also mean that opportunities for profitable investment are less common. Consequently, market equilibrium will be reached at rates of interest which are neither sufficiently high to persuade an adequate number of savers to save in financial assets nor sufficiently low to persuade the private sector to undertake the socially desired level of productive investment. If the policy problem were that of raising the level of investment, it could be described simply as the need to shift equilibrium investment. This, indeed, is an oversimplified but not totally unfair description of the historically dominant approach of development economics. But the evidence does not suggest that it is efficacious. It is the implication of our own approach, which links the general level of saving and investment, the structure of saving (and particularly the link between financial and tangible assets), and the transmission process from the savings institutions into an efficient pattern of productive investment, that there will be few potentially valuable public policies that do not change the slopes and shift the position of both the supply and the demand of financial assets. What needs emphasis is the criteria against which policy measures for the mobilization of savings should be judged. The aim is no longer simply to raise the general level of saving and investment, but to restructure the supply and demand of financial assets towards those characteristic of more developed countries. This requires measures to fill the gaps in the «chain of substitution» between the different types of saving and investment.

1. Raising the saving ration

a. Increase in the density of financial intermediaries

A low saving ratio can increase with increase in income or with appropriate redistribution of income. Increase in the saving ratio of a LDC will presumably

augment saving in both financial and tangible assets, thus changing the position and shape of the supply of funds curve to the right. A greater shift will therefore be expected from policies which aim specifically at the ratio of financial to tangible assets. Consequently, greater density of financial institutions may for many countries be a sine qua non of economic development: but it is at best a partial answer to the problem. Saving immobility in LDC^s cannot be traced back to any single cause such as the lack of accessible banking and non banking financial institutions. Many market malfunctions occur simultaneously and affect cumulatively both the decisions to save and to mobilize savings. Therefore, the number of financial intermediaries is not necessarily related to the degree of development of the financial market, nor to the volume and mobility of savings.

b. Incentives for the mobilization of savings

Improvements in the area of financial intermediation develop the trust of savers in the financial market and induce the process of the monetization of savings. Taxation of savings that do not enter the financial market or of the unproductive forms in which savings are kept is not feasible. There are, however, policies that can be implemented for the purpose of inducing savers to redirect their funds to specific uses. As we have argued earlier, empirical evidence suggests that, although, the effects on total saving of changes in the rate of interest are uncertain and probably insignificant, the composition of savings by assets is certainly responsive to interest-rate differentials. Hence, significant differential yields on saving assets in the form of tax exemptions and interest payments may influence the allocation of funds. Well-known practical examples of this policy are tax-free interest payments on funds deposited with building societies, higher interest payments on government bonds and savings certificates, and higher yields on time deposits with development banks. All such policies, which attempt to shift the supply-of-funds curve, may also have a beneficial side-effect. Improvements in the financial market that create a climate of confidence in the system alter the reactions of savers and change the elasticity of the supply curve.

2. Increasing the demand for investment

Under perfect competition and flexible interest rates excess demand for investment funds cannot exist. If the market for investment is imperfect, the first-best policy would be to make it perfect, and government intervention should be directed to this end. But imperfections and distortions may themselves be government-

imposed. It is when the government, in pursuing an accelerated rate of growth of investment, sets a low rate of interest rate that disequilibrium in the market occurs. Government intervention is rendered necessary when the volume and the direction of investment the market determines is considered unacceptable, either because of the existence of market deficiencies or because they do not serve the development plans of the country, timewise and volumewise. Since the bulk of the supply of financial assets is the result of rational decisions on the part of savers that partly depends on the level of interest rates, more funds will become available and the government plans will be realised, if either the rate of interest is allowed to rise and investors are subsidized for the excess cost of borrowing, or the rate of interest remains low and savers are compensated above it to bring their assets to the market. In practice, a combination of both policies is usually adopted, frequently biased towards the subsidization of investment. These are accompanied by policies for affecting the supply side of the market, which include tax exemptions or rebates granted to savers with regard to interest gains. It is widely believed that taxation of capital income reduces the rate of saving by more than an equal - yield tax on consumption or labour income. Hence, the appropriate mix of tax policy can maintain the government's tax revenue intact and simultaneously positively affect saving and the mobilization of savings. Investment incentives include : a) Investment allowances as a proportion of gross investment above normal depreciation, b) Initial allowances as proportion of gross investment immediately, with the remainder depreciated at the normal rate, c) Gross investment tax allowances, that is credit against taxes as a proportion of gross investment, d) Net investment tax allowances, that is credit against taxes as a proportion of net investment, e) Accelerated depreciation for tax purposes in excess of normal depreciation, f) Direct subsidies as a proportion of gross or net investment, interest rates, employment, etc. (BROADWAY, 1978). More specific policies of this sort differentiate in their concessions on the supply side of the market between financial institutions, for example, higher interest rates paid on certain kinds of saving deposits and, on the demand side of the market, between branches of industry or particular investors. This is a policy of deliberate departure from the market equilibrium rate of interest. Instead of a single rate of interest, there may be two, one for investors low enough to encourage borrowing, and one for savers high enough to encourage lending. Or, there may be a whole set of interest rates which attempt to influence the direction of both saving and investment. The success of these policies depends on the incorruptibility of the government and the ability to predict the implications of planned resource-allocation. There is therefore a possibility that intervention of this kind may not lead to greater «efficiency», in the broad sense of the term. The problem with elaborate interventionist policies for the mobilization of savings is that they are very costly and that they

depend for their success on a level of efficiency and organization that is not commonly present in the LDCs. Thus, subsidization of interest rates calls for funds which are not readily available and have to be raised by general taxation or other government policies. Whether such policies can be implemented and, if they are implemented, whether they will be successful, are questions that cannot be easily answered in the context of abstract models of the problem of economic development.

3. Inflation and the mobilization of savings

Notwithstanding the evidence of correlation between saving and inflation, it seems likely that in the case of LDC inflation will contract the supply of financial assets and expand the demand for them, so that at a given level of interest rates more financial assets will be demanded and less supplied if inflation is anticipated than if the price level is expected to be stable. The naive policy recommendation would be that governments should attempt to bring inflation under control, and not only for the purpose of mobilizing savings. The problem, however, arises and becomes aggravated when attempts to control inflation are unsuccessful because appropriate policies are unavailable, ineffective or politically unacceptable. In this case second — best policies must attempt to increase the supply of financial savings.

Inflation will reduce the real value of deposits. Hence, the alternative of holding tangible assets may become distinctly less risky and such assets relatively more attractive. Furthermore, yields from savings in financial assets are in real terms insignificant and offer at most an inadequate compensation for increasing risks. The solution therefore is for the government to guarantee both the real value of savings and a relatively high real yield, and so alter the preferences of savers. Although costly, this policy can be effective, but it satisfies only one side of the mobilization of savings, that of collecting financial assets. The channelling of these assets to optimal investment through the market mechanism becomes virtually impossible under inflation. The policy to be adopted in this case is the indexation of savings. Discriminating indexation would not only maintain and probably increase the saving ratio in the form of financial assets during periods of acute inflation, but it would also mobilize savings towards the desired type of investment according to development plans. Indexation is in this respect a policy of direct intervention through taxes and subsidies that comply with the purposes of the mobilization of savings. But, it is in one sense a counsel of despair. The LDCs, of all countries, require confidence in the reasonable stability of the price level as the basis for the development of the financial etc. institutions requisite to development. Equally, there are powerful arguments that many of them have less control over their price level than do the developed countries. But the LDC cannot wait for

the rest of the world to solve their problems for them, and, whatever the difficulties and anomalies that indexation of the saving-investment sector might create, there is an arguable case that they would be less intractable than simple dependency.

4. Centralization of savings and investment.

The preceding analysis produces three reasons for the centralization of the saving-investment process. The first is the judgment that such centralization is the best (or only feasible) method of solving the set of problems that may arise in the efficient translation of private preferences into saving-investment outcomes. The second is that the government has different time-preferences from its citizens, and centralization of the relevant decisions is considered more efficient than the adaptation of the outcome of the relevant private markets. The third is that the government has a positive political preference for centralized-public rather than decentralized-private market arrangements. Two methods have been advocated for increasing public savings: Public savings should be increased by higher—than average marginal rates of taxation or by inflation.

Inflation as a long-run policy for forced saving is ineffective. Taxation on the other hand may have detrimental effects on incentives. Both policies affect negatively the public's confidence in the monetary and fiscal systems. As a method of forced saving, inflation is an inferior instrument to taxation. Its incidence is arbitrary, and in contrast with taxation it does not generate savings in a form that permits them, in principle at least, to be directed entirely to productive uses. Inflation may also lead to loss of income and unemployment and in the longer—run total saving. On the other hand, the effects of inflation on another major component of saving, public saving, are neither theoretically conclusive nor empirically unambiguous. Public savings will increase under inflation if most of government outlays are fixed in nominal terms while taxes increase progressively with nominal income.

5. Differential returns

We have seen that for a variety of reasons the rate of interest in the unofficial money markets of LDC^S is significantly higher than the official bank rate of interest. The fact that this differential is real, that is, saves lending in the unorganized market find investors who are willing to borrow at a high rate of interest, has been interpreted by some researchers as an indicator of the fact that in LDC there is a differential between the average effective rate received by households

and corporations and the average national rate of return on investment. In other words, it has been suggested that investors enjoy substantially higher returns from investment than savers receive either from lending their funds in the official markets or from self-financing their own investment. Consequently, savers are reluctant to supply their funds in the official markets. Furthermore, if it happens that some part of saving is motivated by its returns, individuals may save too little if the rate at which they discount future consumption falls below the national rate of return on investment. However, the difference in the rate of interest between the official and unofficial money market indicates nothing of this sort, if as we have seen, the two markets are separate and the unofficial market is relatively more monopolistic than the official market. Furthermore, a situation of persisting differential returns on capital cannot be stable, since excess demand for funds will inevitably raise the rate of interest to lenders until equilibrium in the market is reached. Different rates of interest in the two markets can be maintained only by government intervention in the form of supply of funds equal to the excess demand. In this way, the government follows a policy of pegged interest rates in the official market at low levels that encourage the private undertaking of more investment.

6. Policies for optimum allocation of Resources: A digression

Although we have referred from time to time in this paper to «efficient» and «inefficient» situations, there has been no explicit discussion of the concept of efficiency. It is not in fact free from confusion, and some clarification may be helpful. Even within the current economic orthodoxy, there is room for confusion. Thus, economists commonly conceive of efficiency as concerned with the extent to which resources are allocated between uses in conformity with consumer preferences perhaps constrained by an income-distribution objective. Even at this level, the concept is not simple, because there may be a need to «trade-off» a more satisfactory income-distribution against an inferior allocation. The introduction of a growth-objective further complicates matters. As we have argued, the government (of an LDC in particular) may think it proper to adopt a different scale of time - preference from that of its citizens, in the interests of generating a higher rate of growth. In this event, the resource-use that would be efficient from the point of view of citizens will be suboptimal from the point of view of the government.

Again, economists frequently assume that the introduction of new policies is itself costless. Two illustrations will help. First, it is common to advocate the removal of «market imperfections», «externalities», etc., without asking what

the cost of removal would be. Many apparent «imperfections» exist because (e.g.) the cost of creating the market that would remove them is higher than the transactors are willing to bear. It may be that public intervention of some kind can remove or reduce the relevant cost-obstacle, and in so doing improve everyone's situation (improve «efficiency»). But this cannot be assumed *a priori*: it may equally well be the case that a particular market does not exist because there is no social advantage or gain for creating it. Second, insofar as new policies have to be administered, they are themselves resource-using, and the resource-cost concerned is relevant to any evaluation of «efficiency» (HITIRIS and WISEMAN, 1981). This is of clear practical relevance to LDC^S, and to the policy implications of our own argument. Financial institutions require administrative and organisational skills of a high order, and the opportunity cost of diverting educated manpower to this role must be very high in the case of LDO. It follows that policy for the removal of «gaps» must be determined not only by the identification of institutional changes that could improve the savings mobilization-investment process, but also with a judgment that the change can be *currently* justified on social cost grounds.

Finally, in deciding upon and implementing policies related to the deficiencies we believe relevant, it needs to be borne in mind that the policies will have to be implemented in a situation that may already be strongly influenced by historical institutional deficiencies. It is almost certainly too simple to assume that the problem is to speed the rate of progress from «simple» to «more sophisticated» financial institutions, so raising growth-rates. It is to be expected that the past absence of the institutions concerned will have produced patterns of behaviour, property rights, etc. that are now positive obstacles to change. The removal of these will be politically and socially sensitive as well as economically difficult. This is an argument for evaluating each underdeveloped country on its own merits.

IV. SUMMARY AND CONCLUSIONS

The mobilization of savings is a composite process that comprises three distinct functions : the increase in the saving ratio, the transmission of savings to investors and the improved allocation of investment. Low saving ratios and rigidities in the mobility of funds from savers to efficient investors are frequently manifested in the composition of wealth and the current ratio between financial and tangible assets. Assuming that there exists some relationship between changes in the capital stock and changes in real output, the saving ratio, the transmission of savings to productive investment and the composition of investment may affect the rate

of growth of income. Consequently, the mobilization of savings can be considered as the leverage for accelerated growth. Problems with the mobilization of savings arise from ignorance, lack of opportunities, market imperfections, disturbing legislation and government intervention, and inflation. It is believed that the quantity, quality and variety of financial assets that are available in an economy may affect the pattern and the volume of savings, the transmission of savings to investment and the efficient allocation of investment. Consequently, development of the financial market by increasing the density of financial institutions and the diversification and flexibility of intermediation facilities the mobilization of savings. However, the demand for the services of financial markets is not independent of the monetization of an economy and the rate of growth of its real income.

The volume of investment can be considered inadequate and the direction of investment inappropriate only with reference to some specific growth objectives of the government. Otherwise, in a market free from imperfections realized investment is also adequate investment, although planned and realized investment may differ. Although the mobilization of savings may move the economy towards the realization of its objectives, there is no reason to believe that these objectives will be actually reached. Successful mobilization of savings raises the rate of growth by a more efficient allocation of new investment from relatively less to relatively more productive uses. But if the objective of the government is the realization of a certain rate of growth more direct policies may also be necessary. This is not to say that government intervention is inevitable, but to advocate that when government intervenes it must do so in the most efficient way.

Since the mobilization of savings comprises three different but related function, it must be expected to require for its success a package of complementary government policies that aim at the removal of the «savings constraint» on growth, the optimization of the saving pattern of the economy, and the transmission of savings to efficient investment.

T. HITIRIS

Department of Economics

J. WISEMAN

Institute of Social and Economic Research
University of York, England.

REFERENCES

- BOADWAY, R., (1968), 'Investment Incentives, Corporate Taxation, and Efficiency in the Allocation of Capital', *Economic Journal*, 1978, September.
- BRUTON, H.J., (1965), *Principles of Development Economies*, Englewood Cliffs, N.J., Prentice Hall.
- CAIRNCROSS, A.K., (1962), *Factors in Economic Development*, London : George Allen and Unwin.
- GURLEY, J.G. and SHAW, E.S. (1955), 'Financial Aspects of Economic Development', *American Economic Review*, XLV, September.
- GURLEY, J.G. and SHAW, E.S., (1956), 'Financial Intermediaries and the Saving - Investment Process', *Journal of Finance*, XI May.
- HEALEY, D.T. (1972), «Development Policy : New Thinking About an Interpretation», *Journal of Economic Literature*, X, (September).
- HITIRIS, T. and WISEMAN, J. (1981), *Aspects of the Mobilization of Savings in LDCs*, University of York Discussion Paper No. 54.
- HUDDLE, D.L., (1979), «An Analysis of the Saving Behaviour of a Group of Colombian Artisan Entrepreneurs», *World Development*, 7, August—September.
- LEWIS, W. Arthur, (1955), *The Theory of Economic Growth*, London : George Allen and Unwin.
- MCKINNON, R.I., (1973) *Money and Capital in Economic Development*, Washington, D.C., : The Brookings Institute.
- MEIER, G.M., (1964), *Leading Issues in Development Economics*, New York : Oxford University Press.
- MIKESELL, R. and ZINSER, J.E., (1973), «The Nature of the Saving Function in Developing Countries : A Survey of the Theoretical and Empirical Literature», *Journal of Economic Literature*, XI, December.
- PATRICK, H.T., (1966), «Financial Development and Economic Growth in Underdeveloped Countries», *Economic Development and Cultural Change*, XIV, January.
- ROBERTS, P.E., (1971), «Development Banking : The Issues of Public and Private Development Banking», *Economic Development and Cultural Change*, 19 April.
- ROBINSON, Joan (1952), «The Generalization of the General Theory», *The Rate of Interest and Other Essays*, London : Macmillan.
- TOBIN, J., (1955), «A Dynamic Aggregative Model», *Journal of Political Economy*, LXI, April.
- UN ECAFE (1952), «Measures for Mobilizing Domestic Saving for Productive Investment», *Economic Bulletin for Asia and the Far East*, XI, December.
- U TUN WAI, (1972), *Financial Intermediaries and National Savings in Developing Countries*, New York : Praeger.

- WILLIAMSON, J.G., (1968), "Personal Saving in Developing Countries: An Intertemporal Gross-Section from Asia', *The Economic Record*, 44, June.
- WINSTON, G.C., (1971), «Capital Utilization in Economic Development», *Economic Journal*, 81, March.
- WISEMAN, J. and HITIRIS, T. (1980), *The Mobilization of Savings in Developing Countries- A Position Paper*, United Nations, International Symposium On the Mobilization of Personal Savings in Developing Countries, held in Kingston, Jamaica, February, 1980 (Working Paper No. 7.).