

SOME ASPECTS OF PUBLIC DEBT : A SELECT STUDY

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INTRODUCTION

"Public Debt is a legal obligation on the part of a government to make interest and/or amortization payment to holders of designated claims in accordance with a defined temporal schedule."¹ In other words (public debt is government borrowing from individuals, corporations, institutions and other governments. It is a part of a bilateral exchange process in which lenders transfer funds to government and government in turn transfer to lenders claims on government revenue over a series of period subsequent to that in which the borrowing occurs). According to Bastable state borrowing is a "creation of the constitutional period, built upon the decay of the older method of state hoarding and having its germs in the Middle ages. It is the result of the credit system, combined with the increase of public expenses and the greater security of observance of faith to the state creditor."²

(In its essential respect public debt is not different from private debt. Both the cases are an alternative means of raising revenue to secure additional purchasing power in a particular period of time. But in many respects private debt is different from public debt. Private debt is more similar to external debt, because in both cases, repayment

means reduction of resources held by the borrowers. When an individual or a nation repays the debt along with the interest, there is a corresponding outflow of resources. On the other hand, in the case of internal debt, repayment means reallocation of resources among the people of a country. It is just a transfer of resources from one pocket of the economy to another!

(Classical economists did not give much importance to this source of financing. This is because they firmly believed that government functions should be limited to defence, providing justice and building those institutions that will facilitate commerce and welfare of the nation. But since then the importance of public debt as a means of financing government expenditure has grown. It has become a frequent subject of debate), not only among economists but also among politicians and the general public. In a study conducted by the Chamber of Commerce of the United States, the following five important functions of public debt have been identified.

- ✓ 1. It helps to compensate for discontinuities in economic process, e.g., a nation may borrow in order to acquire assets whose future services will provide the proceeds for retirement of the debt and to increase the welfare of its citizens.
- ✓ 2. It may channelize savings into productive use.

3. An economy characterized by debt, has greater mobility of resource utilization. Where saving, lending and borrowing mechanisms are well developed, resources can be more readily adapted to changes in tastes and technology.
4. Debt affords greater equality of consumption among individuals.
5. Debt facilitates growth of the economy.)

This dissertation deals not with the benefits of public debt but with the burden of public debt. (Burden means sacrifice of private goods and services made necessary by government borrowings. Is internal debt a burden to the present and/or future generations? Is internal debt a burden to private investors in the country due to crowding out of resources? Is external debt a burden to the residents of a country?) No attempt has been made here, to find answers to these questions. This is just a review of the answers given by different economists to the above questions.

Chapter I deals with the first question, i.e., the inter-generational transferability and/or non-transferability of the burden of public debt. Who bears the real cost of debt? Can the cost of public debt be transferred to the future? In the chapter debt burden is often spoken in terms of net burden. (Net burden is the difference between the cost of debt and benefits derived from debt. The cost of debt can be measured in terms of the amount of goods and

services forgone by the people during the period of their life-time. The benefits of debt can be measured either in terms of monetary returns from the expenditure or in terms of the welfare accruing to the society from the expenditure.)

Chapter II deals with the issue of crowding out of private spending due to government borrowing.

Chapter III deals with external debt. External debt is different from internal debt in only one sense. In the former government borrows from the citizens or governments and institutions of foreign countries; whereas in the latter the government borrows from their own citizens. In almost all other respects they are similar. Because of these similarities some points which have been dealt with in Chapter I and Chapter II have been reiterated in Chapter III.

Chapter IV deals with the current debt crisis. In spite of all the theoretical assurances given by economists, regarding the benefits of external debt, the experiences of the developing countries tell a different story. In this chapter, growth of the crisis, its causes and some of the measures taken to curb it has been explained.

Notes and References

1. Buchanan, James M. "Public Debt," in Eatwell, J. and Newman, Murray (ed.). The New Palgrave: A Dictionary of Economics, Vol.3, p. 1044.
2. Bastable, C.F. Public Finance. Macmillan and Co. Ltd., 1922, p. 627.

CHAPTER I

BURDEN OF PUBLIC DEBT

(Is public debt a burden? If it is a burden on whom does it fall - the present generation or future generations?) Generations of economists have tried to find answers to these questions and have come up with contradictory answers. (It is generally accepted that public debt is a burden (even if it is used for productive purposes) as it involves interest payment and the repayment of debt. On the other hand, the benefits of government expenditure might outweigh the burden involved in borrowing) In answer to the second question, three major school of thoughts have come into prominence. (The first school of thought considers public debt to be advantageous to the present generation and a burden for the future generation. The second school contradicts the first and believes that the present generation bears the major brunt of the burden of debt. The future generations, as they will be benefiting from the productive use of debt finance (i.e., if it is productively used) will benefit from debt finance. The third school, first voiced by David Ricardo and later developed by Barro and others, believes in the equivalence of debt and taxation.)

Another related question is the meaning of the word

burden. (Does it mean reduction in the taxpayer's consumption of goods and services? Or does it mean aggregate consumption of private goods forgone during the lifetime of that generation as a consequence of government borrowing and attendant public spending? Or does it mean as Buchanan and Ferguson have defined, reductions in an individual's utility?¹)

This chapter deals with the three different views of economists regarding the transfer of debt burden. Section I argues that the burden of debt is shifted to future generations. Section II opposes the arguments given in Section I. Section III³ deals with the equivalence theory.

1.1 Transfer of Burden to Future Generation

"The larger is the national debt, the greater is the burden to be borne by the future generation". This statement by President Eisenhower in his State of the Union message (7th January, 1960) reflects the views of many publicmen and economists including Classical economists like David Hume, Adam Smith, etc., and the more recent economists like Buchanan, Modigliani, William G. Bowen, R.G. Davies, D.H. Kopf, etc. These economists believed public debt to be harmful to posterity as it involves:

1. reduction of the capital that will be passed on to future generations;² and
2. reduction in the consumption of future generations due to the increase in taxes to service the debt.

One of the earliest arguments against public debt is that it is harmful to capital formation in the country. Classical economists believed that government expenditure was harmful and unproductive and therefore should be kept to a minimum and restricted to only such services as keeping law and order, protecting the country from external aggression and providing those services that would not have been undertaken by private enterprise. On the basis of this assumption, Classical economists believed that public debt led to unproductive consumption of resources by the government. By borrowing, the government transfers resources from the private sector, where it could have been productively utilized to the unproductive government sector. This results in reduction of private investment in the country and this will in turn reduce future national income. The generations to come would be less better off than they would have been had the debt not been contracted. Not only will the incomes of future generations be lower but they will also have to carry the cross of heavier taxation required for the payment of interest. Thus, the burden of low income coupled with high taxes would be the present generation's gift to future generations. The present generation, on the other hand, would be much better off than their descendants would be. The former's consumption would not be reduced; further, they can avoid the unpleasant increase in taxes that would have taken place if they had not resorted to public borrowing.

Writing about the harmful effects of public debt, David Hume had said that it was "a sure burden to posterity" and its abuse would lead the country to "poverty, impotence and subjection to foreign power".³ Adam Smith had noted that the bond purchaser underwent no sacrifice when the debt was created but in the long run the national debt will "probably ruin all the great nations of Europe".⁴ He further said that the capital "... from the moment in which they advanced it was a certain portion of the annual produce turned away from serving in the function of a capital to serve in that of a revenue from maintaining productive labourers to maintaining unproductive ones and to be spent and wasted generally in the course of the year, without even the hope of any further reproduction".⁵

Ricardo, like Adam Smith, emphasized that the primary burden of the debt lay in the loss of original capital. The original capital loss, he argued, represented resources withdrawn from the productive capital of the nation. According to him "the consumption which has followed the loan has annihilated a capital which will never yield any further revenue".⁶

The Ricardo-Pigou thesis states that if the government expenditure is financed by bond issue, the first generation bequeaths the bonds to the second generation. But, along with them, a tax liability required to service the debt is also passed on to the next generation. The members of the second

generation will pay interest to themselves. They neither gain nor do they lose anything in this process. But if the first generation, feeling richer with their possession of bonds, increase their consumption, then future generations will inherit less capital and will bear the full brunt of debt financing. On the other hand, if the first generation cuts its consumption and leaves its investment intact, the coming generations would be better off.

Recent economists like Musgrave⁷ agree with the view that the cost of loan finance is divided amongst generations living in subsequent periods. The facilities provided by the government will be used by several generations of tax payers. Hence, cost of these facilities should be divided equally between all those who use it. This principle is called the 'Pay-as-you-use' principle. To illustrate this, Musgrave has considered a project whose service is available in equal instalments over three periods. In each period, the benefit is available to three generations, i.e. in period one, generations 1, 2, 3; in period two, generations 2, 3, 4 and in period three, generations 3, 4, 5 will get the benefits. To contribute their proper share, generation one should pay $1/9$ of the cost of the project, generation two just $2/9$, generation three just $3/9$, generation four just $2/9$ and generation five just $1/9$. These proportions are based on the number of periods each generation makes use of the service of the project, e.g., generation one and five will use it only for

1 period and therefore has to pay $1/9$ of the cost. Generations two and four will use it for 2 periods and each will pay $2/9$ of the cost. The same is true for the other generations. To explain this Musgrave has given an example. \$100 is to be raised and spent in the first period. If this sum is equally divided between the three periods, generations of each period will have to pay \$33.33. In the first period \$33.3 is obtained by taxing generations 1, 2 and 3 equally. The rest of the amount, i.e. \$66.7 is obtained by loans from generations 2 and 3. According to Musgrave's assumption, each generation has to be repaid during its life span; therefore, generation 1 which consists of old people will not give loans. In the second period again tax revenue of \$33.3 will be collected but this time from generations 2, 3 and 4. Generation 4 will advance a loan of \$16.6 to retire the complete debt of generation 2 and part of the debt of generation 3. In the third period, the tax revenue of \$33.3 contributed by generations 3, 4 and 5 is used to retire the remainder of the debt held by generations 3 and 4. Thus, the total cost of \$100 is equally divided between the five generations in accordance with the benefits received by them. But here Musgrave has ignored the interest that will have to be paid to the debt holders. If the interest burden is taken into consideration, surely each succeeding generation will have to pay more as taxes to service the debt held by the previous generation.

Buchanan,⁸ in his 'Public Principles of Public Debt'

argues that debt financing shifts the burden from the present generation to future generations. When an individual voluntarily purchases government securities he is not undergoing any sacrifice. On the other hand he is moving to a preferred position on his utility surface. What the buyer of bonds does is to postpone his present consumption in favour of future consumption. He shifts the time shape of his income stream and actually pays now for real income in some future time period. Thus, bond financing postpones the sacrifice of debt financing to the future generation of tax payers whose real income would be reduced to pay the interest to the bond holders. The interest payment represents the 'future' income for which the bond holders or his forebears had paid for and this is presumably met out of tax revenue. The tax payers have to compulsorily reduce their consumption in order to pay for the decisions made some time in the past and this tax payment is the sacrifice. But of course, if the debt is created for productive public expenditure, the benefits of that expenditure to future tax payers must be compared with their burden of higher taxes. But if the expenditure was for unproductive purpose, the tax payers will have no productive assets to offset the sacrifice made by them.

Buchanan does not speak about the source of the fund, i.e., whether the debt is drawn from private consumption or from the investment fund. This is important because if the debt is financed by reducing investment, future generations

would be worse off than they would have been if the debt had led to reductions in private consumption. Reduction in investment will lead to lower income in the future. From this lower income, the tax payers will have to pay extra taxes to service the debt. On the other hand, if the current generation financed their debt by reducing their private consumption, their future income will not be affected. Prudent private investment can increase future income and the extra taxes may not be much of a burden.

Bowen, Davis and Kopf⁹ also agree that it is the future generations of tax payers who bear the burden of debt. Though debt financing involves a fall in private consumption of the current generation, they are compensated in the future, for the current sacrifice they have made. The initial generation merely makes a loan of its reduced consumption and the real reduction of consumption is borne by generations alive at the time the loan is extinguished.

To explain this, Bowen, Davis and Kopf have considered a society which borrows from a generation of people, all of whom are twenty-one years old. Forty-four years later, all members of generation I will be sixty-five years old and generation II will consist of members who are twenty-one years old. At this moment generation I will sell their outstanding government bonds to members of generation II and use the proceeds for the purchase of consumer goods during retirement. Thus, though generation I did sacrifice their consumption in

their initial years, their lifetime consumption has not been reduced. They have not assumed any of the burden of public borrowing. Similarly, generation II can sell their bonds to generation III and escape the burden and so on. But if the government decides to retire the debt in the lifetime of generation II, extra taxes will be levied on them and the burden of public debt will rest squarely on generation II.

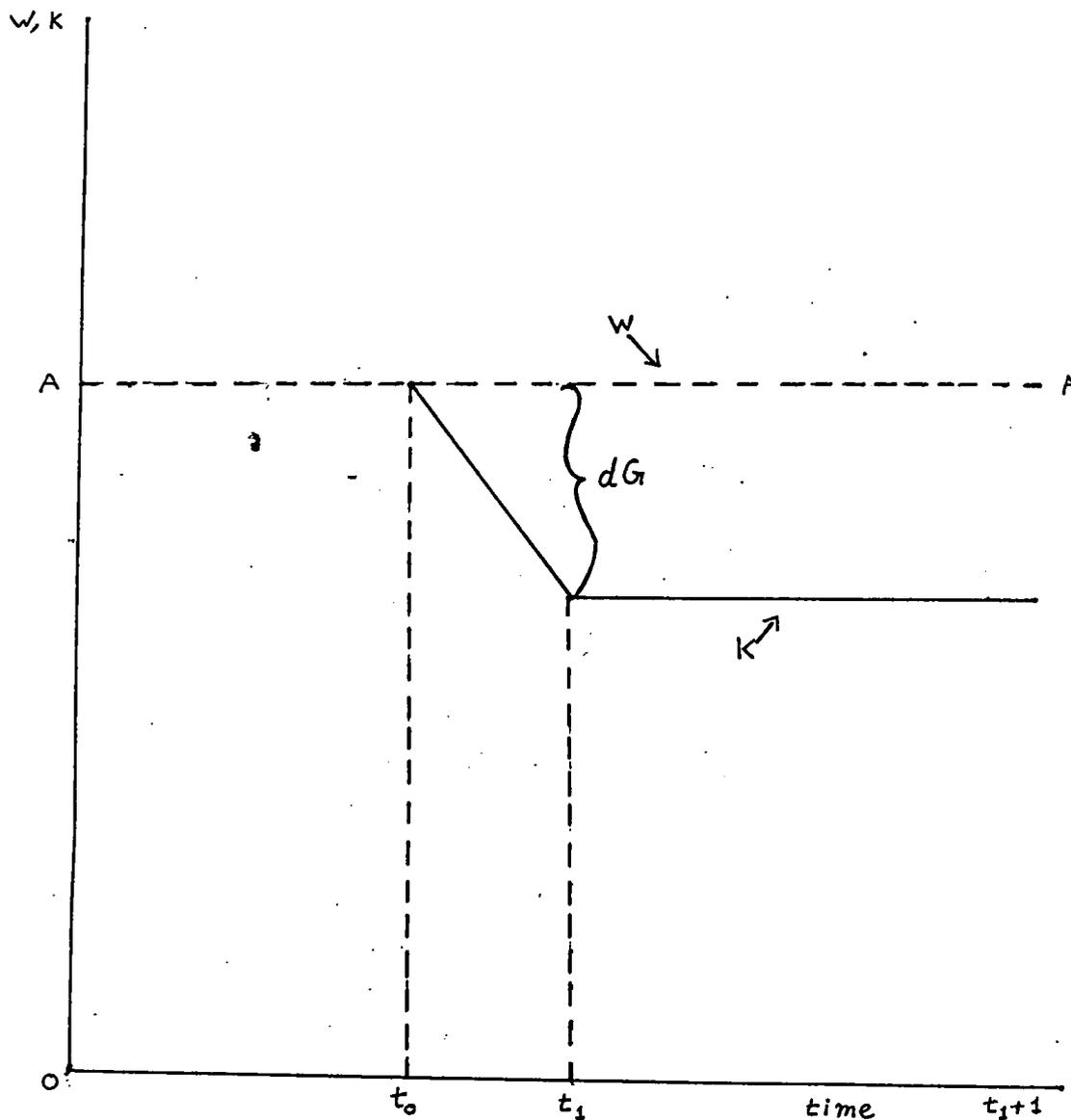
When interest payment is taken into consideration, Bowen et al., argue that the interest payments on debt represent some burden on each and every generation that must pay taxes to finance such payments. Interest payment on national debt is a kind of compensation paid to the owners of the debt for their willingness to forgo consumption early in life. But the interest payments require tax payments which represent a real reduction in the life time consumption of the people paying the taxes. As tax payers and interest receivers are members of the same generation, the interest payment does not increase the discounted lifetime consumption of a generation, and the tax payment does not decrease lifetime consumption. The burden of debt then is the loss of welfare due to postponement of consumption. This sacrifice represented by the deferment of consumption continues from generation to generation.

Modigliani¹⁰ argues, that as long as public expenditures are financed out of private saving the current generation will not bear the burden of debt. This is because people invest to

consume later. As there will be no reduction in consumption in the current period, nobody suffers. But the reduction in investment reduces future production and hence consumption of private goods and services. This reduction in consumption is the cost or gross burden of public debt. The taxpayers will primarily bear this reduction in consumption.

Modigliani, assuming a stationary economy which implies zero saving and gross investment just sufficient to offset the wear and tear of capital stock, has shown the consequences of a non-repetitive increment in government expenditure on private capital. Figure 1.1 illustrates the effect of increase in government expenditure (dG) on aggregate private net worth (W) and on the net stock of privately owned capital (K). The horizontal dashed line AA represents the behaviour of net worth in the absence of dG when net worth (W) coincides with K . The incremental expenditure dG occurs in the interval t_0 to t_1 at a constant rate $dG/(t_1-t_0)$. This increase is financed from a portion of resources which would otherwise have been used for private investment. As a result, in the period between t_0 and t_1 , K falls. But W remains at the same initial level as the fall in K is offset in the consumers balance sheet by the government debt dG . By period t_1 the gap between W and K is dG and this continues until further disturbance occurs. The result is that government expenditure, by creating this wedge between W and K , transfers the entire cost of expenditure to those living beyond t_1 in the form of reduction in the stock

Figure 1.1 : Effect of Deficit Financing on Net Worth, W , and Capital, K



Source : Modigliani Franco, "Long-Run Implication of Alternative Fiscal Policies and the Burden of the National Debt," The Economic Journal, Vol. LXXI, December 1961, p. 745.

of private capital. Modigliani has suggested that the burden can be eliminated later by repaying the debt through a budget surplus. This will shift the full burden to taxpayers who have financed the surplus.

Shoup¹¹ also recognized that in public debt financing, additional private capital is used up by the initial generation. In the absence of borrowing, this would have been given to the next generation. Public debt thus results in a reduction of the stock of capital obtained by the subsequent generation. The actual burden shifted can be measured in terms of reductions in private investment.

H. Laurence Miller Jr.¹² also supports the benefit argument. In a fully employed economy, individuals will voluntarily buy bonds to finance capital expenditure. No individual will suffer because they have exchanged one thing for another in a move for a preferred utility level. The tax burden in the form of a compulsory reduction in consumption opportunities is shifted into the future. Thus, benefits will accompany taxes into future and will be available both before and after public borrowing and spending. On the other hand, if investment turns out to be unproductive, burden is imposed on both present and future members and this burden will continue until the debt is retired.

James M. Ferguson (1964)¹³ has defined public debt in terms of utility of an individual which is a function of consumption in each period and of the expected consumption in all

future periods. According to him, the burden of debt is due to public debt illusion. People treat government bonds as assets, and underestimate their liabilities as taxpayers to pay additional taxes in future. Feeling wealthier, they will consume more and save less in the period of government expenditure. This will result in reduction in consumption of future taxpayers who will be taxed to service and retire the debt.

The burden of public debt is always spoken in terms of net burden and this is one (and probably the only one) point in which all economists agree. The sacrifice involved in borrowing for public expenditure and the resulting taxes tell only one side of the story. Public borrowing can be for productive purposes and while gauging the burden of public debt one should not forget this vital ingredient. Along with the transfer of sacrifices, benefits are also transferred to the future generation. As Modigliani had said the "gross burden may be offset ... in so far as the increase in the debt is accompanied by government expenditure which contributes to the real income of future expenditure e.g., through productive public capital formation".¹⁴

1.2 Non-Transferability of Burden of Debt

Criticism of the transferability of debt burden from the present generation to future generation gave rise to a school of thought which believed that the burden of public debt cannot be transferred to the future but the brunt of it

has to be borne by the present generation itself. This school of thought, referred to as 'new orthodoxy' of public debt by Buchanan is based on three propositions. The first proposition is that creation of public debt does not involve any transfer of primary real burden to future generations. They agree that future generations may suffer a burden of reduced total real consumption if the government expenditure is used wastefully. But this burden is not because of the use of loan finance but because of the wasteful expenditure of loan funds. Economists do agree that, a society composed of a fixed population through time will suffer a burden of reduced total real consumption, if the government project is less productive than the sacrificed alternative, but this loss is due to wasteful expenditure and cannot be attributed to use of deficit financing.

A.P. Lerner (1948) has said, "However useful an internal loan may be for the health of the economy, it does not enable the nation to consume more than it produces".¹⁵ Individuals or subgroups within an economic system can, by means of borrowing from other individuals and sub-groups, increase their current consumption and pay for this increase out of future output. But they can do this only because their borrowing is 'external'. An economy as a whole, on the other hand, cannot consume goods and services more than it is currently producing. It certainly cannot increase its consumption by paying with future output. Hence government

expenditure must be paid for by those present when the borrowing took place. This payment is in the form of reduced consumption as borrowing will reduce goods and services available for productive use. But the total goods and services available to the society as a whole will remain the same. The only change that takes place due to loan finance is that there is a transfer of resources from one section of the economy (private sector) to another section (public sector). This transfer of resources can make some people richer and the others poorer. But the total resources in the economy will not increase or decrease. The economy as a whole cannot consume more than what exists in the economy at that period of time. Nor can it borrow from future. The real burden of public debt is thus borne by the present generation in the form of reduced consumption.

In his later works Lerner (1961)¹⁶ has cautioned economists from confusing between shift of burden from one section of people to another section and shift in the real burden from the present generation to the future generation. The former shift is possible as this shift takes place between people living in the same time horizon. The latter shift is impossible because a project that uses up resources needs those resources at the time that it takes up and not before or after. Regarding this Lerner said, "... The borrowing and the repayment do not make a time machine. There is no shift of resources or of burdens between different points in time.

It is possible for a part of the economy to shift its burden into the future only as long as another part of the present economy is ready to take it over for the intervening period".¹⁷

The whole argument given above can be summarized in one sentence of Samuelson, "To fight a war we must hurl present day munitions at the enemy; not dollar bills and not future goods and services."

Another argument very often quoted against the transfer of burden is that 'we owe it to ourselves'. Internal borrowing will leave, in its wake, obligation for future taxpayers to pay interest and repay the principal. In this process, bond holders will be gainers and taxpayers will be losers. But this payment is not a loss for the economy as a whole because the loss is offset in the aggregate by the gain of the beneficiary of the payment. Future generations may have to pay extra taxes but the revenue collected in taxes is returned to the same generation in the form of interest payment on debt. Therefore, public debt places on individuals of 'future generations' nothing more than an obligation to make some transfers among themselves. And this transfer cannot be compared with the sacrifice of resources which was borne during the period when the debt was originally created and public expenditure carried out. The resources which are used up through loan finance are lost forever to the people unless, of course, they are productively used to better the welfare of the people.

Harol M. Groves in his 'Financing Government', has said

that "... when a nation borrows from itself or within the family, it may have to tax future generations to pay principal and interest on the debt but the future generations in turn receive the interest and principal and may if they like, enlarge their consumption with it".¹⁸

A.P. Lerner (1948) had also spoken in the same vein: "... if our children or grandchildren repay some of the national debt these payments will be made to our children or grandchildren and to nobody else. Taking them altogether they will no more be impoverished by making the repayment than they will be enriched by receiving them".¹⁹

If the above arguments are accepted and the burden of public debt is not transferred to future generations, but is borne by the present generation then why not forgo altogether the painful activity of taxing. After all public debt would be a substitute for taxation as the effect of the two would be similar. The answer to this is found in A.P. Lerner's 'Principles of Functional Finance' which explains that the purpose of taxes is not only to finance government expenditure, but also to prevent the greater social evil of inflation. A higher level of taxes would generate unemployment and a lower level would generate inflation, both evils which the government plans to avoid.

It may be true that a community cannot increase its current resources by relying on tomorrow's unproduced output. But nevertheless the way the resources are used today can

affect the output that will result tomorrow. The posterity will build up on what it inherits from its forebears. Modigliani (1961)²⁰ has stated three major ways in which this interdependence can result.

1. By affecting the natural resources available to future generations,
2. By improving technological knowledge, and
3. By affecting the stock of man-made means of production or capital available to the future generation.

Hence, government expenditure and the way it is financed can affect the economy in future if any of the three items is affected.

There are many economists who believe that we should not worry about tomorrow when we have enough to worry about today and if possible the burden of debt should be shifted to future. E.J. Mishan has quoted a U.S. congressman who has questioned the need to worry about posterity. After all "What has posterity ever done for us?"²¹ But this question can be framed differently: "What have we done for our forebearers that we have inherited from them what ever we have?" It is true that with continuous scientific innovations, future generations may and will most probably be richer than the present generation in spite of government borrowings. The continuous forward march of science opens new avenues for further development. And so, maybe, they will be better equipped to tackle not only their own problems but also the problems created by their forebears.

1.3 Equivalence Theory and the Burden of Debt

David Ricardo believed that public debt led to consumption of capital. But he did recognize the similarity between taxation and debt. According to him it does not make any difference to taxpayers whether government expenditure is financed by taxation or by public borrowing because in both cases they have to dole out money. In the case of debt finance they will have to pay a huge sum of money in the beginning and later he will have to pay a permanently higher level of taxes to finance the interest payment of the debt. According to Ricardo, interest payment on the debt imposes no sacrifice on future generations because future taxes are fully capitalized by rational taxpayers. Therefore, a choice of debt rather than of tax financing of public expenditure does not shift the real cost of government expenditure forward in time. Ricardo asserted that there is no difference in either of the modes of financing. Regarding this he had said, "The argument of charging posterity with the interest of our debt or of relieving them from a portion of such interest, is often used by otherwise well informed people, but we confess to see no weight in it".²² Ricardo in his argument about a taxpayer's treatment of a war loan of £1,000 versus a tax of £50 for the interest on a loan of £1,000, had stated that "he would have some vague notion that the 50L. per annum would be paid by posterity and would not be paid by him; but if he leaves his fortune to his son and leaves it charged with his perpetual tax, where is the difference

whether he leaves 20,000 L. with the tax or 19,000 L. without it."²³

Ricardo's views were later developed by Barro in the 'Ricardian Equivalence Theorem'. The Ricardian Equivalence Theorem is the proposition in which "the method of financing any particular path of government expenditure is irrelevant".²⁴ In other words it means that the choice between levying lump sum taxes and issuing government bonds does not affect capital formation or the consumption of any household.

The Ricardian Equivalence Theorem is based on three main assumptions. They are:

1. Consumers have operative altruistic bequest motives so that they care about taxes after their death,
2. There is a complete set of competitive markets, and
3. Only lump sum taxes are charged.

The underlying logic of the Ricardian Equivalence Theorem is quite simple. A tax cut followed by the issue of bonds merely replaces current taxes with future taxes of equal present value. It is based on the fact that a dollar of tax reduction creates an extra dollar of national debt and this must eventually be repaid by interest payments of the same present value. Thus according to Feldstein "the tax reduction is thus really only a tax postponement".²⁵ To counteract the reduction in tax followed by an increase in debt, a rational individual will increase his savings.

In Barro's²⁶ model of overlapping generations of persons with finite lives, taxpayers will capitalize the future obligation of public debt. The introduction of debt creates wealth for the current generation and a liability for future generations. The current generation will resist this redistribution from their heirs to themselves by increasing their bequest by just enough so that their heirs are no worse off. This extra bequest just offsets the increased taxes that their heirs will have to pay to service the debt in future. Thus, because a taxpayer anticipates a future increase in taxes and makes arrangements to meet this by leaving extra bequest, the burden of public debt is not carried to future generations.

Tobin has summarized this theory thus, "... the effect of government is fully measured by the size and contents of real public expenditure. It is independent of how these expenditures are financed. Thus the celebrated Modigliani-Miller theorem of corporate finance is extended to government".²⁷

Barro's interpretation of Ricardian theory has been severely criticised by Tobin and many other economists. According to Tobin, "although there are grains of truth in the theorem, there are not enough for policy makers to take it seriously. Nor is there convincing empirical evidence that the rate of national saving is independent of the amount of government savings".²⁸ Some of the other main criticisms are given below.

1. The Ricardian Equivalence Theorem is based on the assumption that consumers have infinite time horizon. Barro, Carmichael and other economists have achieved this by linking utility of the present generation with utility of future generations. But there are several conditions that will lead to a break in this life cycle theory, like when consumers have no children or when they are indifferent to the utility of their successors. Or may be consumers cared about the utility of only one of their several children. In all these cases, consumers will consume more at the cost of future generations.²

2. Barro assumes that consumers are rational and as such will be able to figure out the implications of change in their public debt. But as Modigliani had said the consumers may be suffering from myopia regarding the effect of public debt.

3. Many households' optimum utility is at zero bequest and would have preferred negative bequest. But this is not possible. So when taxes are reduced these consumers would consume more rather than increase their bequest.

4. Absence of a well developed market operates as a liquidity constraint on a consumer. He is unable to borrow to increase his consumption against his future income. As Tobin had rightly said, "even within the lifetime of one generation, households are generally not able to shift consumption at will from a later date to an earlier date."²⁹

5. Barro has assumed that taxes in the Ricardian model will be lump sum, but in the real world taxes are rarely lump sum.

According to O'Driscoll and Gerald (1977), Ricardo himself did not believe in Ricardian equivalence theorem, but recognized that taxpayers can suffer from fiscal illusion. Ricardo's non-equivalence theorem was expressed as follows: "the people who pay the taxes never so estimate them and therefore do not manage their private affairs accordingly. We are too apt to think that the war is burdensome only in proportion to what we are at the moment called to pay for it in taxes without reflecting on the probable duration of such taxes. It would be difficult to convince a man possessed of 20,000 L or any other sum, that a perpetual payment of 50 L per annum was equally burdensome with a single tax of 1,000 L."³⁰

C.K. Rowley has stated the non-practicability of Equivalence theory thus: "Unicorns have been created with the intriguing characteristics in the fiction of the 'twilight zone'. But they do not exist in the real world. No more are the characteristic of the equivalence theorem evident in any real economy."³¹

1.4 Conclusion

On whom does the burden of public debt rest? Does it rest on the present generation or future generations? After reviewing both sides of the argument, we are back to square one.

Arguments of both sides are equally convincing. The neutrality theory can be ruled out as it does not represent the real world. It can be true only in the economist's assumed economy based on their unrealistic assumptions, some of which are mentioned in Section III.

It is true that no generation can borrow or steal from the posterity. Each generation can make use of only those resources which exist at the time. By borrowing the government is only utilizing the resources that would have remained unutilized by the private sector. The resources are just transferred from the private sector to the government sector. If the government productively utilizes the resources, where is the burden?

But then it is equally true that we live in a world where the present is linked to the past and future. The present is influenced by the past and will in turn influence the future. What has compelled the present generation to resort to borrowing? Maybe it was the actions of the previous generation - their borrowings and expenditure policies, lack of resource planning, etc. Similarly, how the present generation will utilize their resources today and how it finances its development programme will influence the generations to come. Being unable to study any period in isolation, we can say that the burden, along with the benefits of public debt, is carried forward in time. When we speak of burden of public debt it means the net burden of public debt. A part of the

taxes we pay today is used to service the debt of the previous generation. But along with the taxes we have also inherited the capital on which at least a part of this borrowing must have been spent.

We can conclude that the burden of the debt and its transferability depend on how the borrowed resources are put to use. If the resources are productively utilized then its burden will be cancelled with the benefits derived from the productive use of loan finance. On the other hand, if the loan was used for other unproductive consumption, the burden will be felt by all the generations (including the one which financed the loan) who will be forced to pay taxes in order to finance the debt and will receive nothing in return. Unproductive use of loan finance will also lead to loss of resources which could have otherwise been productively used.

Thus, it is not possible to study the burden of public debt in isolation. The use that the public fund was put to, should be analysed before deciding whether the debt is a burden or not.

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CHAPTER II

PUBLIC DEBT AND CROWDING OUT

Public debt can affect the present as well as future generations through its effect on capital formation. In the previous chapter it has been mentioned that borrowing from the public within the country provides the government with extra funds to finance government expenditure, but it does not create new funds. What actually happens is that resources are transferred from the private sector to the public sector. In this chapter we will see how this transfer of resources affects private sector.

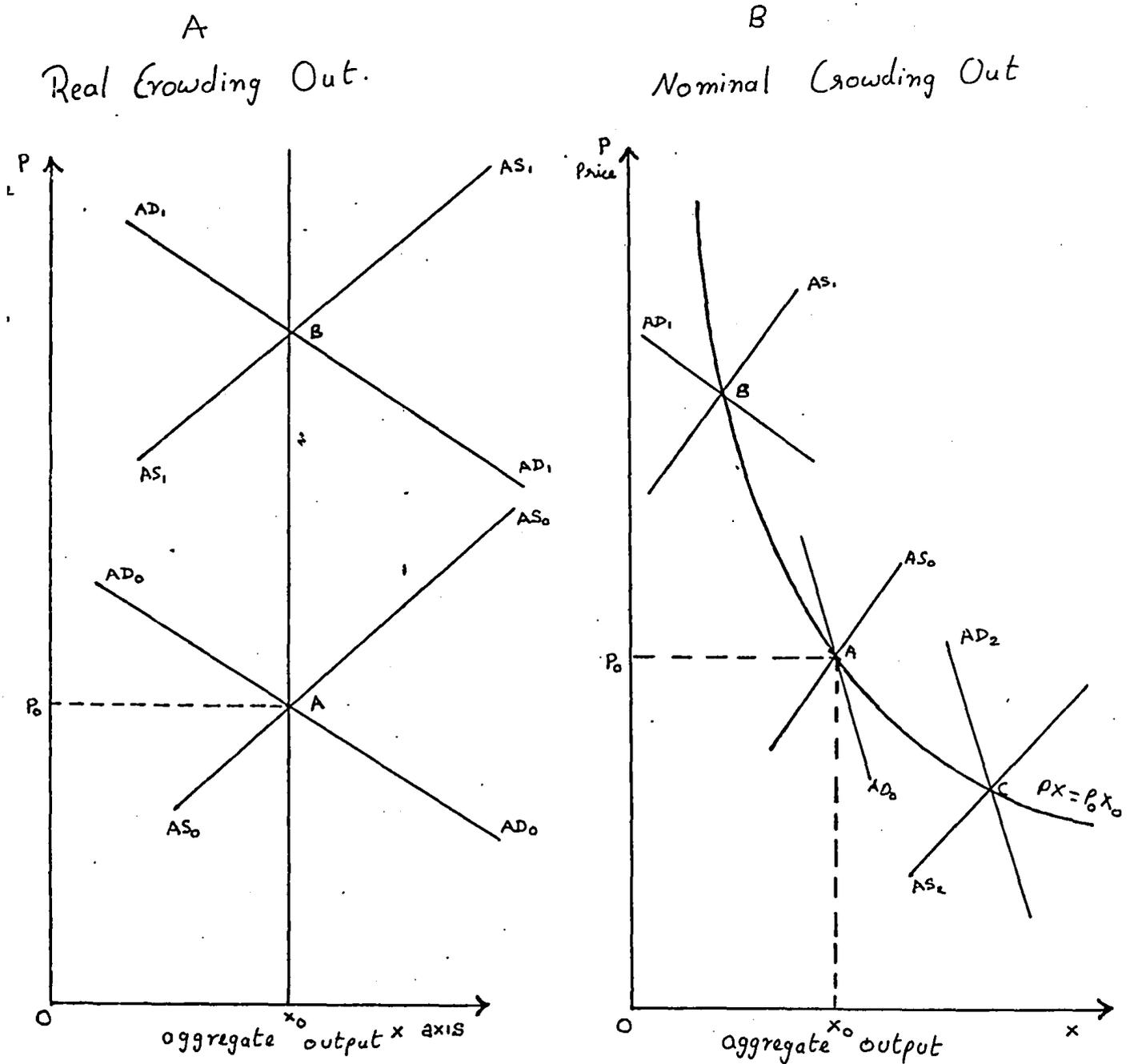
The economic effect of expansionary fiscal action is generally referred to as 'crowding out'. If an increase in government expenditure financed by debt issuance to the public, fails to stimulate total economic activity, the private expenditure is said to have been 'crowded out' by government actions. There can be financial crowding out and resources crowding out. The financing of government expenditure and the subsequent crowding out of private expenditure is termed as financial crowding out. On the other hand, resource crowding out takes place when public expenditure expands at the cost of private expenditure and the limited resources are transferred from private sector to public sector.

Crowding out can occur at several levels. The fundamental sense in which crowding out can result is from shortage of real productive resources. If the economy is at full employment, an increase in government borrowing will be at the cost of private investment. This is more obvious in cases where the government invests in those areas which otherwise would have provided for by the private sector. But in less than full employment situations, the extra resources required to meet the increased public demand could be mobilized from unemployed factors of production.

A second level of crowding out occurs when the rise in production due to fiscal stimulus is partly restrained by rising interest rate. Private expenditure will be reduced due to this increase in interest rate.

The analysis of crowding out can be carried out in real or nominal terms. This has been explained with the help of Figure 2.1. Figure A represents market for total output of goods and services in an economy. The intersection of aggregate supply curve AS_0 and aggregate demand curve AD_0 at A determines equilibrium level of output at X_0 and equilibrium price P_0 . An increase in government demand for goods and services financed by sale of government bonds to public will shift AD_0 to AD_1 . Assuming that the expanded government sector adversely affects efficiency and productive capacity of private sector, (due to transfer of resources from private to public sector), the supply curve will shift to AS_1 . If

Figure 2.1 : Definition of Crowding Out



Source : Keith M. Carlson and Roger W. Spencer, "Crowding Out and Its Critics" Review Federal Reserve Bank of St. Louis, December 1975, p. 17.

the new equilibrium point B occurs on the vertical line through point A, then real crowding out has occurred. The increase in real government spending has been completely offset by a decline in real private spending.

In Figure B, the rectangular hyperbola passing through point A shows that P times X (defined as nominal value of total output) is constant and equal to $P_0 X_0$. In other words, there is an infinite number of combination of P and X which would give the same rupee value of total output as point A. If due to government borrowing, aggregate demand and supply shift in different directions (depending on the assumptions made), the new equilibrium is point B or C. Under these conditions, an increase in government spending has been offset by a decline in the rupee amount of spending by the private sector. This is called nominal crowding out.

In this chapter a review of the theoretical foundations of the crowding out debate is attempted.

2.1 Theoretical Foundation of Crowding Out: Classical and Neo-Classical Viewpoints

The crowding out debate is not new. The dominant view before the 1930s was that government spending financed by taxes or borrowing from public merely displaces or 'crowds out' private spending. This crowding out occurs in two ways. First, capital which could have been productively utilized, is invested in government securities. Secondly, it could involve diversion of the whole of new savings from productive investment to government expenditure.

Adam Smith, as early as 1776, opposed extensive government involvement for both philosophical and crowding out reasons. Like most of the classical economists, Adam Smith considered government spending to be unproductive and wasteful and therefore deprecated all kinds of transfer of resources from private sector to public sector. According to him, borrowing funds from the public to finance government spending involves "destruction of some capital".¹ He believed that government spending was unnecessary as a stabilization tool, because private investment was sufficient to utilize the funds provided by private saving.

David Ricardo also believed that debt slows down growth in business as money spent by the state is withdrawn from productive capital of the nation. He believed that "the society is deprived not of the amount of interest, since that passes from one hand to the other, but of the revenue from a destroyed capital".² If the capital had been productively employed by the capital owner, it would have provided him income and this income would not have been from the pockets of fellow citizens but from real production.

Later classical economists have also argued along similar lines. They considered government expenditure unnecessary stabilization tool because private investment was sufficient to utilize the funds provided by private savings. J.S. Mill had stated that an increasing rate of interest indicates that government competes with private

investor for capital. J.B. Say had given the most elementary case of crowding out. In a fully employed economy supply creates its own demand. If the resources are always fully employed, government expenditure on goods can be met only by diverting resources from the private sector, i.e., private expenditure is merely crowded out and government deficits leave real national income unchanged.

The report of the Transvaal Indigency Commission of 1908, had stated, "Wealth is the only source from which wages are paid and the state must levy taxation in order to pay wages to its workmen. When therefore a government gives work to the unemployed, it is simply transferring wage-giving power from the individual to itself. It is diminishing employment with one hand while it increases it with other. It takes work from people employed by private individual and gives it to the people elected by the state."³

Pigou's⁴ views are similar to these. According to him if public authorities borrow money and invest in those areas in which private persons are accustomed to invest, it will act as a direct check on private investment. The extent of this check on private enterprise will be greater, the less elastic the general demand for the product. Therefore, government should invest only in those areas where private enterprises do not invest like roads, buildings, etc. Pigou also spoke of two ways in which private investment can be affected. First, an expansion of borrowing by public autho-

rities, except in periods of depression, will raise the rate of interest which will check investment by private persons. The check need not be equivalent to the increase in public investment. But if government expenditure is financed by shifting money from passive to active balance, then government can check rise in the rate of interest and private investments need not be curbed. Secondly, an increase in public investment can lead to psychological reaction which can undermine the confidence of private industrialists. But, of course, public expenditure by stimulating business confidence can also have a positive psychological effect.

In the testimony before the Macmillan Committee in 1930, R.G. Hawtrey argued that government spending would replace private expenditure without affecting the total expenditure regardless of whether the funds came out of taxation or loans from savings. If the fund is a part of the consumer outlay, it would reduce the effective demand for the product by that amount. He also rejected the idea of increases in government expenditure financed out of new bank credit because the result of such a policy would be inflationary.

These views were shared by the Treasury at the time and later came to be known as the 'Treasury view'. "The large loans involved, if they are not to involve inflation, must draw on existing capital resources. These resources are on the whole utilized at present in varying degrees of

active employment and the great bulk is utilized for home industrial and commercial purposes. The extent to which any additional employment could be given by altering the direction of investment is therefore at the best strictly limited."⁵

Thus the Classical and neo-Classical economists denied the usefulness of government expenditure financed by loans. Even Keynes, twelve years before the publication of 'The General Theory', had stated that government spending should be financed by monetary expansion, as the central bank had the power to defeat expansionary fiscal action, and thus ensure that government expenditure crowded out private expenditure. But later on he downgraded the necessity of monetary expansion along with government expenditure. In the next section Keynes's later views have been reviewed.

2.2 Keynes and Crowding Out

The publication of the 'General Theory of Employment, Interest and Money' in 1936 by John Maynard Keynes provided the thrust for the proposition that government spending need not crowd out private spending. Prior to the publication of this book, Keynes had advocated that government spending should be financed by monetary expansion as the central bank has the power to defeat expansionary fiscal action. With the development of liquidity preference theory of interest and the multiplier theory, Keynes was able to shift money into the background of his analysis. Since then it has become

common to believe that a dollar of government spending raises National Income not only by the original dollar but by some multiplier times the original dollar.

Keynes believed that the orthodox crowding out argument was without foundation. In "Can Lloyd George do it?" he had stated that, if state promoted undertakings can crowd out private expenditure, then it should be true of any new business enterprise's capital expenditure. Investment by business men will merely divert capital resources from one source to another and there will be no gain for the economy as a whole. But this does not happen because, according to him, there are three resources which can enable new investment to provide a net addition to the amount of employment.

1. Savings which are now used to pay the unemployed in the country,
2. Savings which run waste through lack of adequate credit, and
3. Savings through a reduction in the net amount of foreign lending.

Thus, Keynes suggested that to avoid crowding out new investments should be made out of unemployed productive resources. By making positive use of these savings to augment the capital equipment of the country, the capital can be enriched.

Keynes also speaks about direct and indirect employment. Public works expenditure would not only provide direct employment but also greater indirect employment. Regarding

this, he said, "That a demand for suit of cloth implies a demand for cloth; that a demand for cloth implies a demand for yarns and tops and so for wool; that the services of farmers, merchants, engineers, miners, transport workers, clerks are all involved, this is the ABC of economic science."⁶

The increase in direct and indirect employment would increase effective purchasing power which would give a general stimulus to trade. Trade activities would give greater impetus to further trade activity, for the forces of prosperity will have a cumulative effect. And thus the economy would prosper.

This was the beginning of the multiplier theory which was later on introduced in the "General Theory". According to Keynes's investment multiplier, "when there is an increment of aggregate investment, income will increase by an amount which is k times the increment of investment".⁷ In other words, it means that any increase in investment will lead to a direct and indirect increase in output and income and this increase will be multiplier times the initial increase. If the marginal propensity to consume is zero, the multiplier is 1, and when it is unity, the multiplier is infinity. Thus, the effects of any increase in investment will vary with the marginal propensity to consume (MPC). If the MPC is close to unity, small fluctuations in investment may cause violent fluctuations in income and employment. On the other hand, if it is zero, a large change in investment

will be required to produce any substantial fluctuations in income and employment.

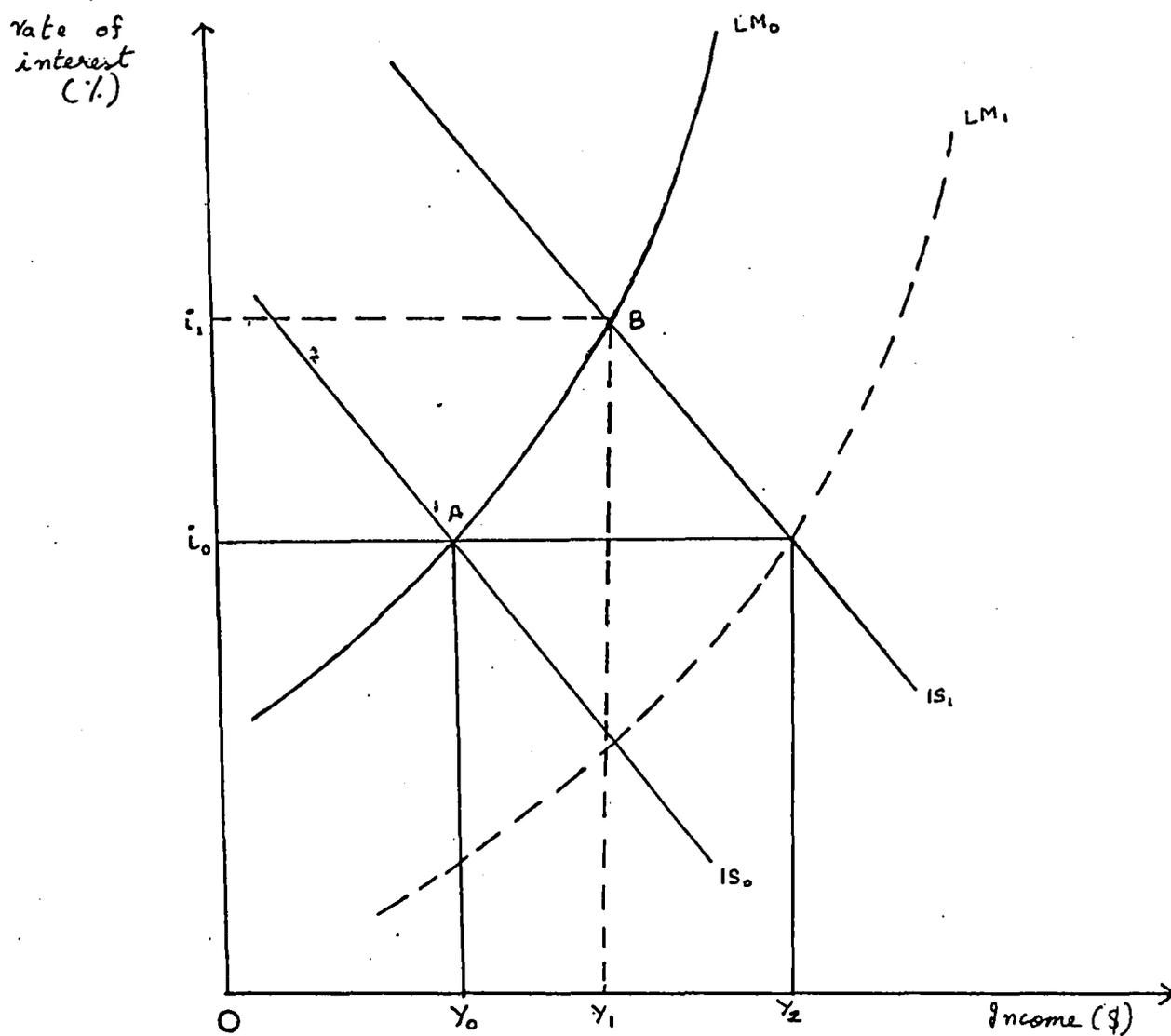
According to Keynes, there are two reasons for crowding out to take place.

First, when interest rate rises because of shortage of cash. This has been explained in Figure 2.2 which shows a simple Keynesian IS-LM model. An increase in the government expenditure by G shifts the IS curve to the right from IS_0 to IS_1 . If interest rate remains constant at i_0 , then income should increase from Y_0 to Y_2 . This happens when the multiplier is 1. But the interest rate will not remain constant. Money supply remaining constant, any increase in income will increase at least the transaction demand for money. People will sell their assets and bonds to acquire transactions balances. This will lower bond prices and raise interest rates. The rise in interest rate will offset the rise in income which would otherwise have occurred. The new income will be Y_1 at the interest rate i_1 . Thus, the effective multiplier is reduced because of increased interest rate and income to the tune of $Y_1 Y_2$ is crowded out.

The effective multiplier in Figure 2.2 is smaller than the simple Keynesian multiplier. The simple Keynesian multiplier holds true only under two simple cases.

First, when IS curve intersects a horizontal portion of the LM curve i.e. the liquidity trap situation where the

Figure 2.2 : Crowding Out in an IS-LM Framework When Interest Rate Rises Because of Shortage of Cash



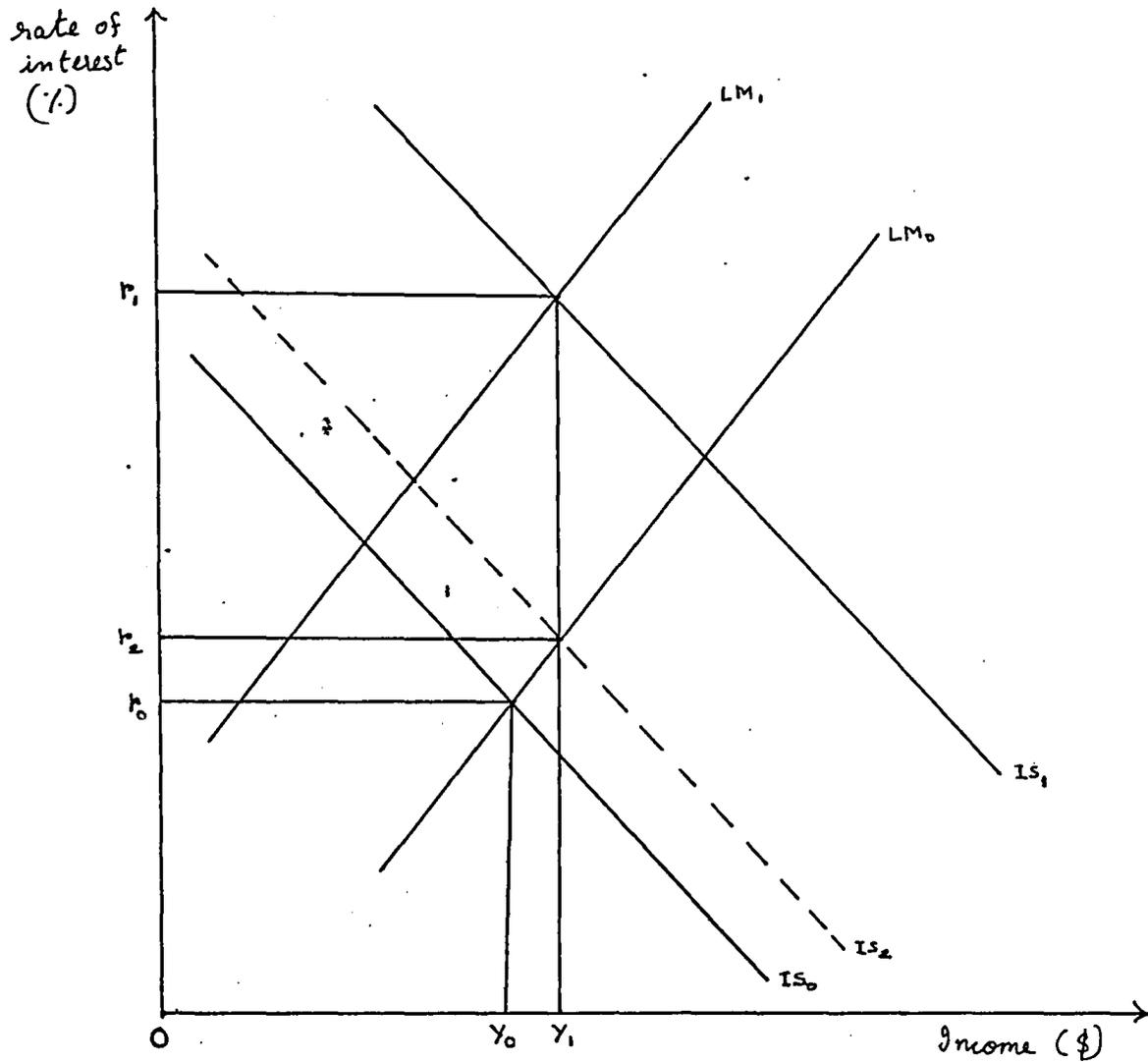
Source: Spencer, W.R. and Yohe, W.P. "The 'Crowding Out' of Private Expenditures by Fiscal Policy Actions," Review Federal Reserve Bank of St. Louis, October 1970, p. 17.

equilibrium rate of interest is at its minimum. Here, a horizontal shift in the IS curve raises the income by an amount equal to G times the simple multiplier.

Second, when IS curve is vertical implying that both investment and consumption are completely insensitive to changes in interest rate.

The second explanation of crowding out is based on business psychology. "With the confused psychology which often prevails, the government programme may, through its effect on confidence, increase liquidity preference or diminish the marginal efficiency of capital, which, again may retard other investment unless measures are taken to offset it."⁸ This has been explained in Figure 2.3. An increase in government spending shifts the IS curve to IS_1 . This may have an adverse effect on liquidity preference of consumers. There will be an increase in the demand to hold money. This will shift the LM curve to the left - to LM_1 . Income increases only slightly from Y_0 to Y_1 . If the marginal efficiency of investment is now adversely influenced, then the IS curve shifts from IS_1 to IS_2 . If the LM curve remains unchanged at LM_0 the increase in income will be small as before from Y_0 to Y_1 . If due to simultaneous increase in liquidity preference and lower marginal efficiency of investment, both IS and LM curves shift, income may in fact decrease instead of increasing.

Figure 2.3 : Crowding Out in an IS-LM Framework



Source : Spencer, W.R. and Yohe, W.P. "The 'Crowding Out' of Private Expenditures by Fiscal Policy Action," Review Federal Reserve Bank of St. Louis, October 1970, p. 17.

Though Keynes spoke of the expansionary effect of government expenditure and public debt, ironically he also gave the most cogent and clear argument for crowding out. He recognized the crowding out to be the most fundamental elements of his monetary analysis. In his own words: "If for example, a government employs 100,000 additional men on public works and if the multiplier ... is 4, it is not safe to assume that aggregate employment will increase by 400,000. For the new policy may have adverse reaction on investment in other directions. ... The method of financing the policy and the increased working cash, required by the increased employment and the associated rise of prices, may have the effect of increasing the rate of interest and so retarding investment in other directions, unless the monetary authority takes steps to the contrary; whilst at the same time, the increased cost of capital goods will reduce their marginal efficiency to the private investor and this will require an actual fall in the rate of interest to offset it."⁹

The crowding out of private spending is theoretically more likely at full employment than at considerably less than full-employment conditions. In conditions of less than full employment, government investment can directly stimulate the economy and increase its output. The unutilized resources will be utilized and transfer of resources from private to public sector is avoided. Hicks has called the General Theory of Employment, Interest and Money as the

economics of depression. This is because Keynes has analysed the type of disturbance which would cause the economy to slide into depression from which it cannot escape unaided. In times of recession or whenever unemployment exceeds the target level, government could reduce the unemployment level by bringing actual output up to the level of potential output through an appropriate increase in its own purchases. The government can supplement private investment to maintain full employment. Increased government expenditure will have an expansionary effect on the economy. Government investment will put to use the unutilized resources and will raise the output of the economy. But once the economy has achieved full employment, government will have to compete with the private sector for resources. Government investment will only lead to a transfer of resources from private sector to government sector; or, in other words, resources are crowded out from private sector to government sector.

Since Keynes, the economists have stressed the macro-economic effects of government spending. The old view that government spending, financed by borrowing, simply crowd out private spending was overshadowed. But lately, with the resurgence of the quantity theory under the name of 'monetarism' there has been an increasing interest in the 'crowding out' effect. Some of the main facets of the debate between Keynesians and the monetarists have been reviewed in the following section.

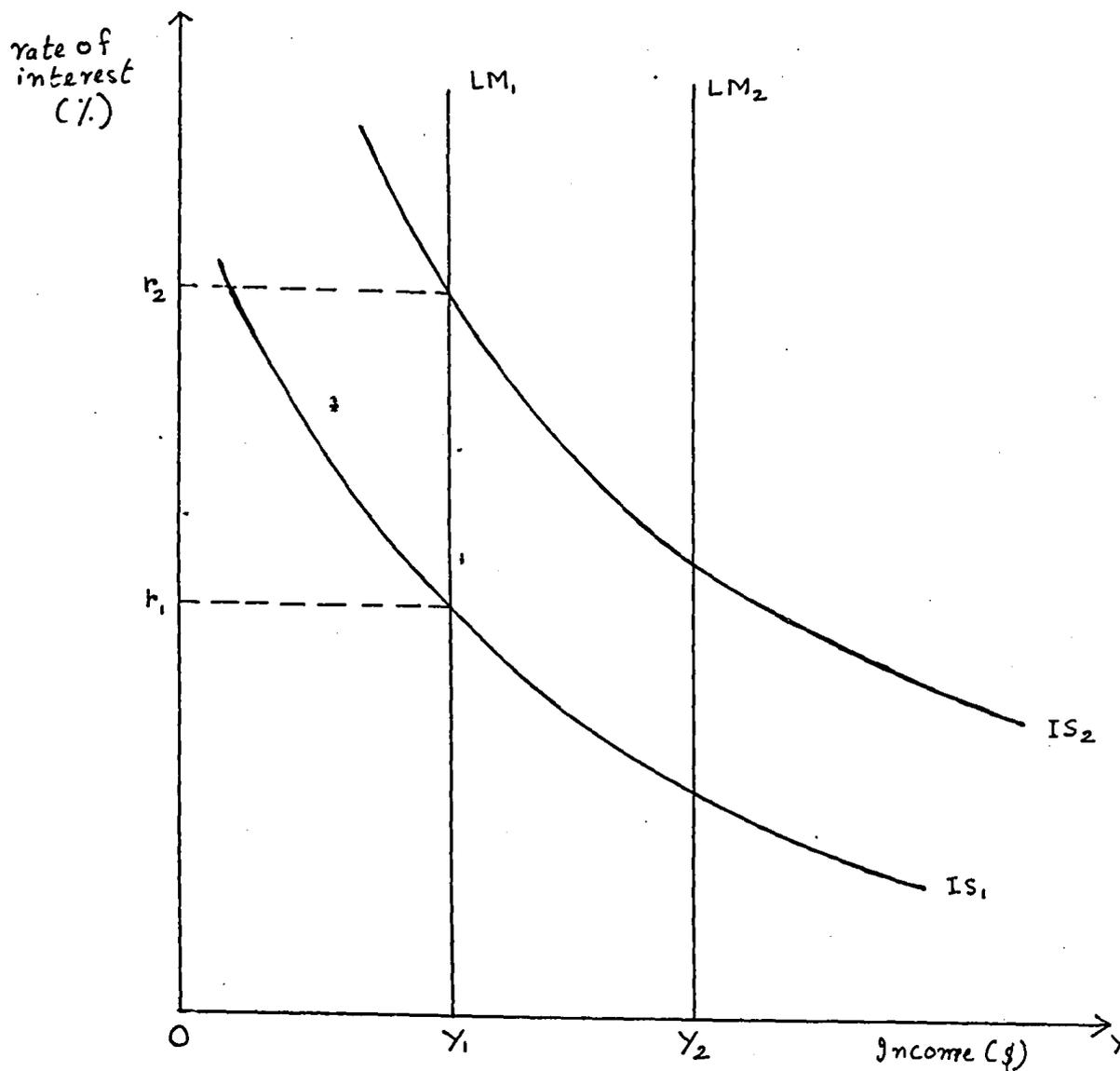
2.3 Monetarist-Keynesian Debate

The monetarist-Keynesian debate centers round the question 'Does fiscal policy matter?' The monetarist proposition is that pure fiscal policy does not affect aggregate real demand, nominal income and price level. They can be affected only by changing the quantity of money in the economy. Thus, they assert that government cannot change, by its own spending behaviour, the income level of the economy. According to monetarists, "A rising ratio of debt to money, resulting from continuing budget deficits, raises real rates of interest and adversely affects investment. This is the crowding out effect, which dominates the wealth effect in the consumption function. Eventually, excess aggregate demand is lowered by the rise in the debt-money ratio."¹⁰

The non-monetarists, on the other hand, have argued that the above proposition will hold only if the interest elasticity of demand for money is zero. In terms of IS-LM paradigm, it would mean a vertical LM curve. When this condition is not met, increase in government expenditure will shift the IS curve to the right and the aggregate demand will rise.

The early monetarists believed that as money and bonds are not substitutes, the demand for money is completely inelastic with respect to the interest rate on bonds. The LM curve would be vertical and the fiscal policy will have no effect on real income. In Figure 2.4, an increase in

Figure 2.4 : Effect of Fiscal Stimulus When Money Demand Has an Infinite and a Zero Interest Responsiveness



Source : Adapted from Laurence Harris. Monetary Theory. McGraw-Hill Book Company.

government expenditure will shift the IS curve to the right from IS_1 to IS_2 . This shift will have no effect on the real income of the economy but will cause the interest rate to rise from r_1 to r_2 . This will have an adverse effect on the private investment which will offset the increase in government expenditure. Only an increase in money supply, by shifting the LM curve to LM_2 , will increase the real income of the economy. Thus, monetarists believe that the multiplier for bond financed government spending is approximately zero.

The latter monetarists have argued that their proposition holds whether or not the LM curve is vertical. According to Friedman, fiscal effects are "certain to be temporary and likely to be minor", and that the difference between monetarists and Keynesians is "mostly, whether one considers only the impact effect of a change or the cumulative effect".¹¹

Friedman¹² has distinguished between initial and subsequent effects of fiscal policy. The Keynesian approach giving exclusive importance to the first round effect has attached more importance to flows of spending rather than stocks of assets. Here the first round effect of fiscal policy is to increase income by shifting the IS curve to the right. This does not take into account the wealth effect. Friedman takes into account the wealth effect stimulated by issue of bonds to finance increased government expenditure. Figure 2.5 illustrates the difference between initial and subsequent effects. Figure 2.5(a) illustrates the initial

Figure 2.5 : Diagrammatic Representation of Friedman's Initial and Subsequent Effect of Fiscal Policy,

Fig a.

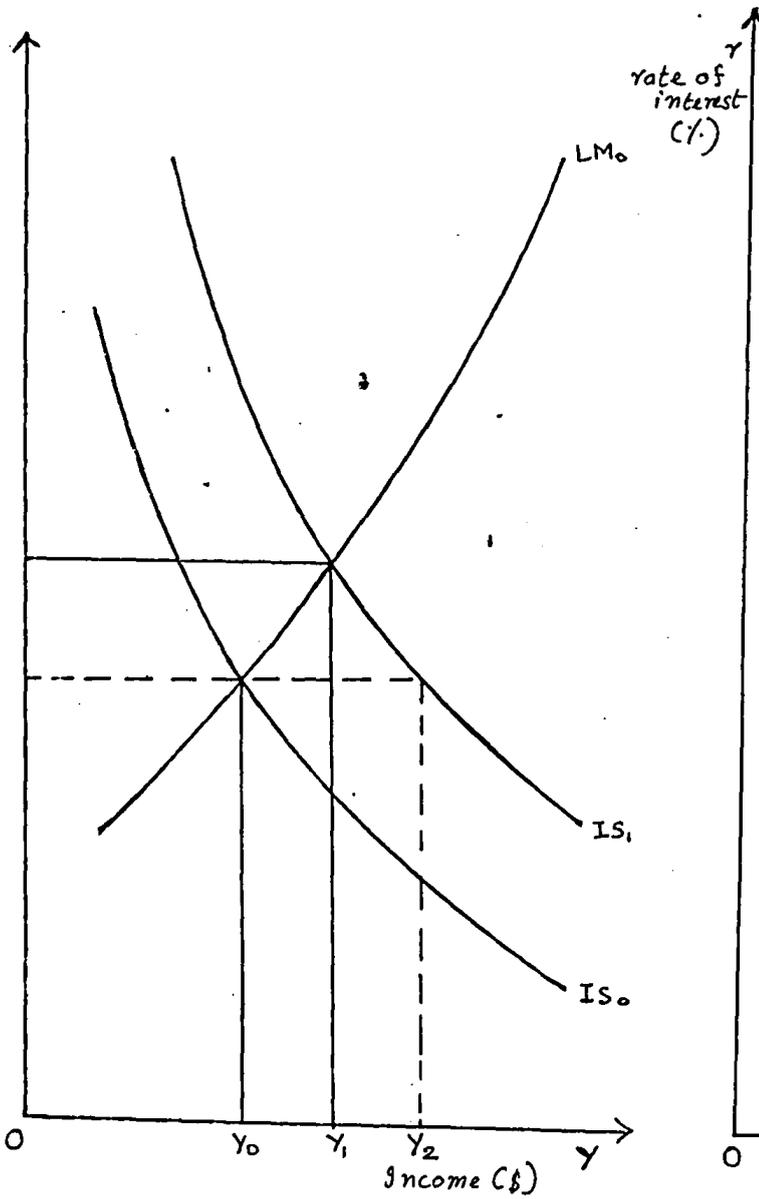
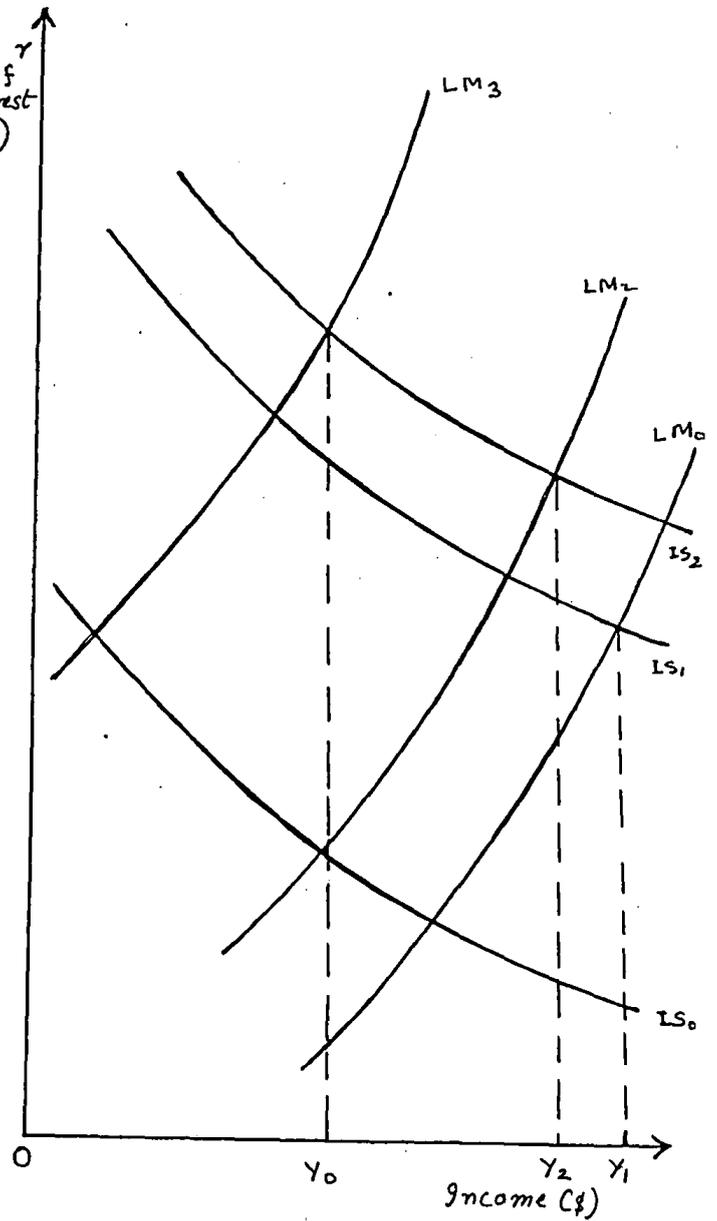


Fig b



Source : Adapted from Laurence Harris. Monetary Theory. McGraw-Hill Book Company.

equilibrium of the economy. An increase in government spending will push the IS curve to IS_1 . The new equilibrium income is Y_1 . However, when wealth effect is taken into account, Y_1 is not the equilibrium income. Government expenditure when financed by the issue of bonds will increase the private wealth in the economy. Greater wealth will mean higher consumption out of a given flow of income. This increase will shift the IS curve further to IS_2 as shown in Figure 2.5(b). But, greater wealth will also affect the financial market. With greater wealth, demand for money at any level of income and interest rate will increase. This will shift the LM curve to LM_2 . Thus, the shift will offset the expansionary effect of the earlier two shifts in the IS curve. The final outcome of these shifts may be either expansionary or contractionary. The wealth-induced shifts in the IS and the LM curves may be such as to cause the ultimate equilibrium to be at Y_0 with IS_2 and LM_3 . In this case the fiscal policy has no expansionary effect, the multiplier being zero. The crowding out will be complete, as the expansionary effect of increased government expenditure is completely offset by the contractionary effect of increased demand for money.

Friedman believes that subsequent effect of government expenditure, financed by printing money, is expansionary. This is because, when deficit is money-financed, the LM curve moves to the right and remains there even after

the IS curve returns to its initial position. On the other hand, the subsequent effect of bond-financed deficit spending is contractionary. This is because of two reasons. First, growth of government debt is accompanied by increase in expectation of future tax and second, increased government debt will lower private productive investment which, in turn, will reduce the physical volume of assets.

Unlike Friedman, Floyd and Hynes¹³ speak of the initial effect of the crowding out. They have demonstrated that if the wealth effect of deficit financing on the demand for money is properly taken into consideration additional first round crowding out effect will occur and this effect exists irrespective of whether the deficit is financed by money creation or by selling bonds.

Floyd and Hynes have defined the first round effects as "the impact comparative statics effect of the tax change which occur at time t_0 and remain in force until the cut is reversed".¹⁴ In the model, consumption is expressed not as a function of disposable income but that of the permanent income. This is because any reduction in tax is assumed to increase the consumption of the individual and thereby his wealth. This assumption implies that the present value of the expected future additions to stocks of money and debt due to current and expected future deficit finance is also a component of wealth. Thus, with such a broad definition of wealth, income is simply defined as the return to wealth

and wealth is the capitalized value of income.

In an IS-LM model, an increase in wealth and permanent income due to a tax cut, money supply remaining constant, will shift the IS curve to the right and the LM curve to the left. The leftward shift of the LM curve is due to the wealth effect on the demand for money and this shift will crowd out some or perhaps all of the output effect of the shift of IS curve. The net output effect continues until the tax cut is reversed. Thus, as long as the wealth effect of deficit financing is positive, the LM curve will shift to the left and first round crowding out will take place. How much crowding out will take place will depend on the parameters which will have to be found not theoretically but empirically.

Tobin¹⁵ has also distinguished the two effects of government debt as the fiscal effect and the monetary effect. Fiscal effect or the flow effect, like the initial effect of Friedman is due to one time change in the budgetary programme and is temporary. The monetary effect or the stock effect is permanent and cumulative. But, unlike Friedman's subsequent effect, the stock effect of non-monetary debt may be expansionary. This is because Tobin has assumed bonds to be closer substitute to money than to capital and so any increase in non-monetary debt would shift the LM curve to the right rather than to the left.

Tobin has explained the monetary effect of an increase in the debt on the basis of difference between anticipated

marginal productivity of capital and supply price of capital. The former is determined by technology, factor supplies and expectations and the latter has been defined as "that rate at which the public would be willing to hold the existing stock of capital valued at current prices".¹⁶ When supply price is equal to actual yield, the portfolio of the asset owner is in equilibrium. When the government increases issue of bonds this portfolio will be in disequilibrium. A wealth owner would not like to hold the whole of the increase in wealth in the form of public debt but would like a balanced expansion of holding by dividing the new acquisition of wealth between debt and capital in the same proportion as it was earlier in his portfolio. The private sector will try to exchange its excess bonds for other assets, thus reducing the bond holding towards the desired proportion and raising its holdings of physical capital so as to restore the initial proportion between the assets (assuming that no change takes place in the desired proportion). But in doing so, the supply price of capital will be driven down. This will encourage the asset owners to increase their holdings of physical capital. Or, in other words, in a stationary economy when the portfolio is in equilibrium, increase in government debt will induce a positive rate of planned investment and this will continue till the marginal product of capital equals the new lower supply price of capital.

Blinder and Solow (1973)¹⁷ attacking the crowding out thesis have extended the IS-LM model to include wealth effects in both consumption and demand for money functions, as well as in government budget constraint. In the model, they included interest paid on bonds as an expense item in the government's budgetary account along with government expenditure. The government budget constraint can be defined as:

$$P(G + B - T) = \dot{B}/r + \dot{M} \quad (1)$$

where, G is the government expenditure, B is the number of outstanding bonds, T is tax, \dot{B}/r is the change in the market value of stock of bonds and \dot{M} is the change in money stock.

Consumption and tax functions can be written as follows:

$$C = c(Y + B - T, W) \quad (2)$$

$$T = t(Y + B) \quad (3)$$

where, Y is the nominal income excluding government interest, and W is wealth. Both consumption and taxes depend upon personal income which includes interest paid on national debt. Wealth is defined as:

$$W = M + B/r + K \quad (4)$$

where, W is the nominal wealth of private sector.

From the above equations, the goods market equilibrium is derived as

$$Y = C + I + G$$

$$Y = c[Y + B - T(Y + B), M + B/r + K] + I(r) + G. \quad (5)$$

The money market equilibrium is written as

$$\begin{aligned} M^S &= M^D = L(r, Y, W) \\ M^S &= M^D = L(r, Y, M + B/r + K) \end{aligned} \quad (6)$$

Equations (5) and (6) treat price level as fixed and determine the short run equilibrium of the IS and LM curves. The government budget constraint equation

$$\dot{M} + \dot{B}/r = G + B - T(Y + B)$$

determines the change in B and M and, therefore, the movement of IS and LM curves from one instantaneous equilibrium to the next. From this equation, the long run stationary state equilibrium solution can be found when

$$\dot{M} = \dot{B} = 0 \quad \text{and} \quad G + B = T(Y + B).$$

Change in long run equilibrium income that results from a change in government expenditure is

$$\frac{dY}{dG} = \frac{1 + (1 - T') dB/dG}{T'}.$$

This result shows that in the long run equilibrium a rise in government expenditure is expansionary. If the deficits are financed by money creation, i.e., $dB/dG = 0$, then the long run multiplier will be $1/T'$. On the other hand, if bond financing is used, so that $dB/dG > 0$, then the long run multiplier exceeds $1/T'$. Thus Blinder and Solow have shown that the long run multiplier for bond-financed deficit is greater than that for money-financed deficit spending. The reason for this is that when deficits are bond-financed, income must rise sufficiently to produce tax receipts which

will not only cover the increased government expenditure but will also cover interest payments on increased government debt. On the other hand, when deficits are financed by money creation, to achieve long run equilibrium, income has to rise only to the extent where tax receipts will equal increased government expenditure.

There are several limitations to the model which have been recognized by Blinder and Solow themselves. The stability condition of money-financed deficit is always satisfied but the stability condition of bond-financed deficit is satisfied only if the parameters of the goods and money market behaviour functions are satisfied. However, when the system is stable, then a bond-financed deficit must be expansionary not only in the long run but also in the short run.

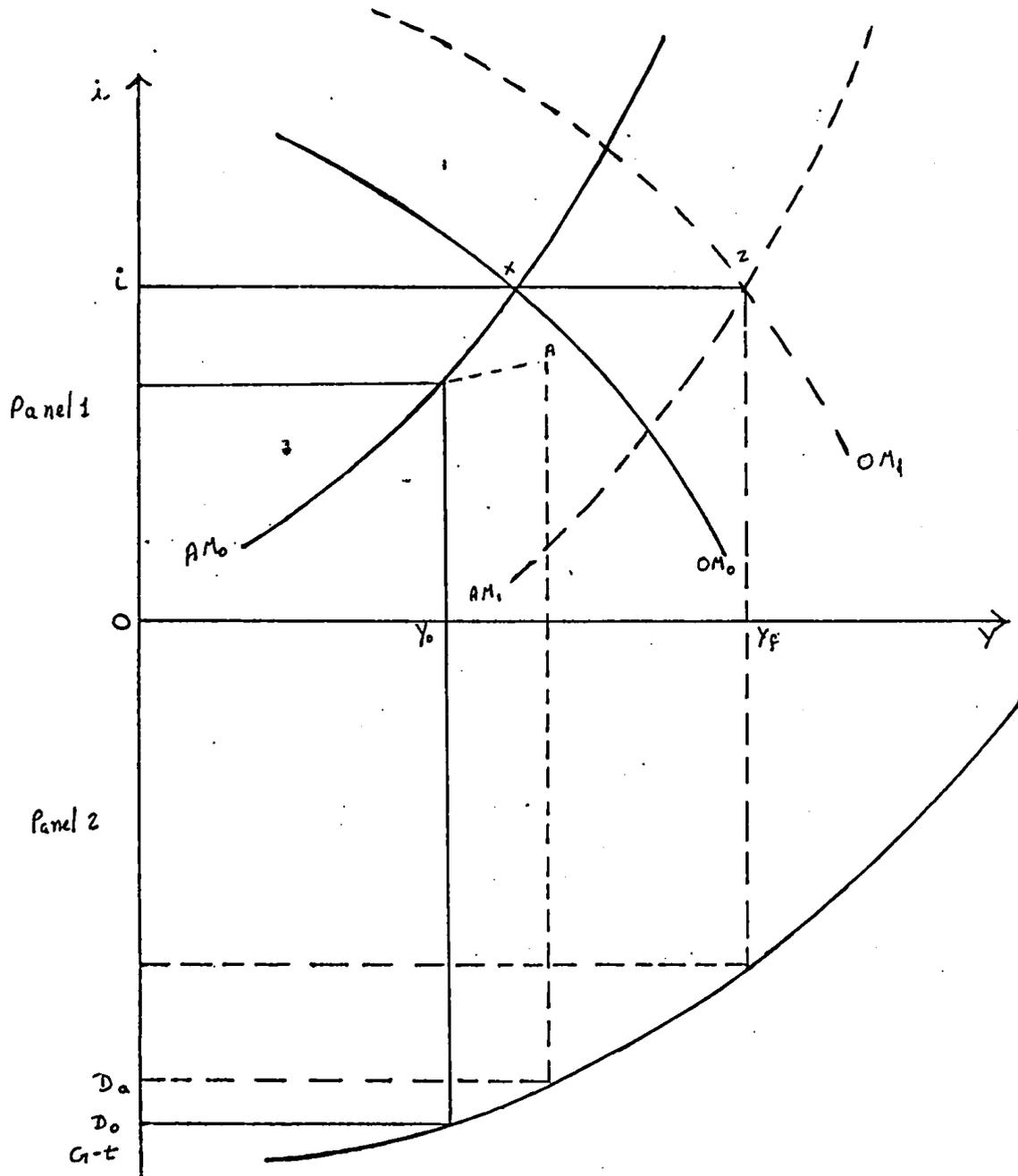
Brunner and Meltzer (1972)¹⁸ using a model which is different from the standard IS-LM model, came to the same conclusion as Blinder and Solow, namely, that government spending financed by debt issuance is more stimulative than government spending accompanied by expansionary monetary action. According to them, once the economy is disturbed by an increase in government spending, budget is required to return to balance and the presence of interest payment in the budget constraint means that a larger increase in income is required for the bond-financing than for money-financing.

In their model there are two asset markets and three prices - the prices of real assets, financial assets and current output. Wealth owners are permitted to choose between money, bonds, real capital and current expenditure. A disequilibrium in the output market disturbs the equilibrium of the new asset markets and sets off a process that moves the output market to a new equilibrium position.

In Figure 2.6, asset market (AM) and the output market (OM) relations are shown as positively and negatively sloped curves respectively. The AM curve, the closest analogy to the LM curve, is obtained by solving credit and money market equations simultaneously for market interest rate (i) and price of existing capital (P) at the prevailing level of output. Corresponding to each position of the output, there are values of i and P that clear the asset market. The slope of the AM curve indicates the response of P and i to changes in income. As output, interest rates and asset prices generally rise and fall together, the curve has a positive slope.

The OM curve is a locus of equilibrium points for the output market. This curve is negatively sloped because rising capacity utilization raises the elasticity of price level of new production with respect to output. As a result, elasticity of market interest rate with respect to output becomes increasingly negative as output expands.

Figure 2.6 : Diagrammatic Representation of Brunner and Meltzer's Model



Source : Brunner, Karl and Meltzer, H. Allan. "Money, Debt, and Economic Activity," Journal of Political Economy, September 1972, p. 971.

Panel 2 shows the nominal deficit, $G - T$ (where G is government expenditure and T is tax) as a function of real output. The deficit depends on the level of output. It increases as output falls, and decreases as output rises. An increase in debt shifts the curve to the right, increasing the deficit or surplus at a given level of output. A reduction in the debt moves the curve to the left. The method of financing the deficit also changes the slope of the curve by changing i and interest payment on government debt (GI). An increase in GI makes the curve steeper, accelerating the deficit and a decrease makes the curve flatter.

Now suppose, some random event in the closed economy reduces output and brings it to a disequilibrium position of $i_0 Y_0$. Output Y_0 is less than Y_f which is the level of output that maintains stock flow equilibrium. At $i_0 Y_0$ output is also below the short run equilibrium position of the output market, OM_0 . Since Y_0 is below OM_0 , the total expenditure ($d+g$) exceeds Y_0 at prevailing prices and interest rates and output rises. If the money, debt and capital remain unchanged, the adjustment procedure continues along the AM_0 curve towards the intersection point X .

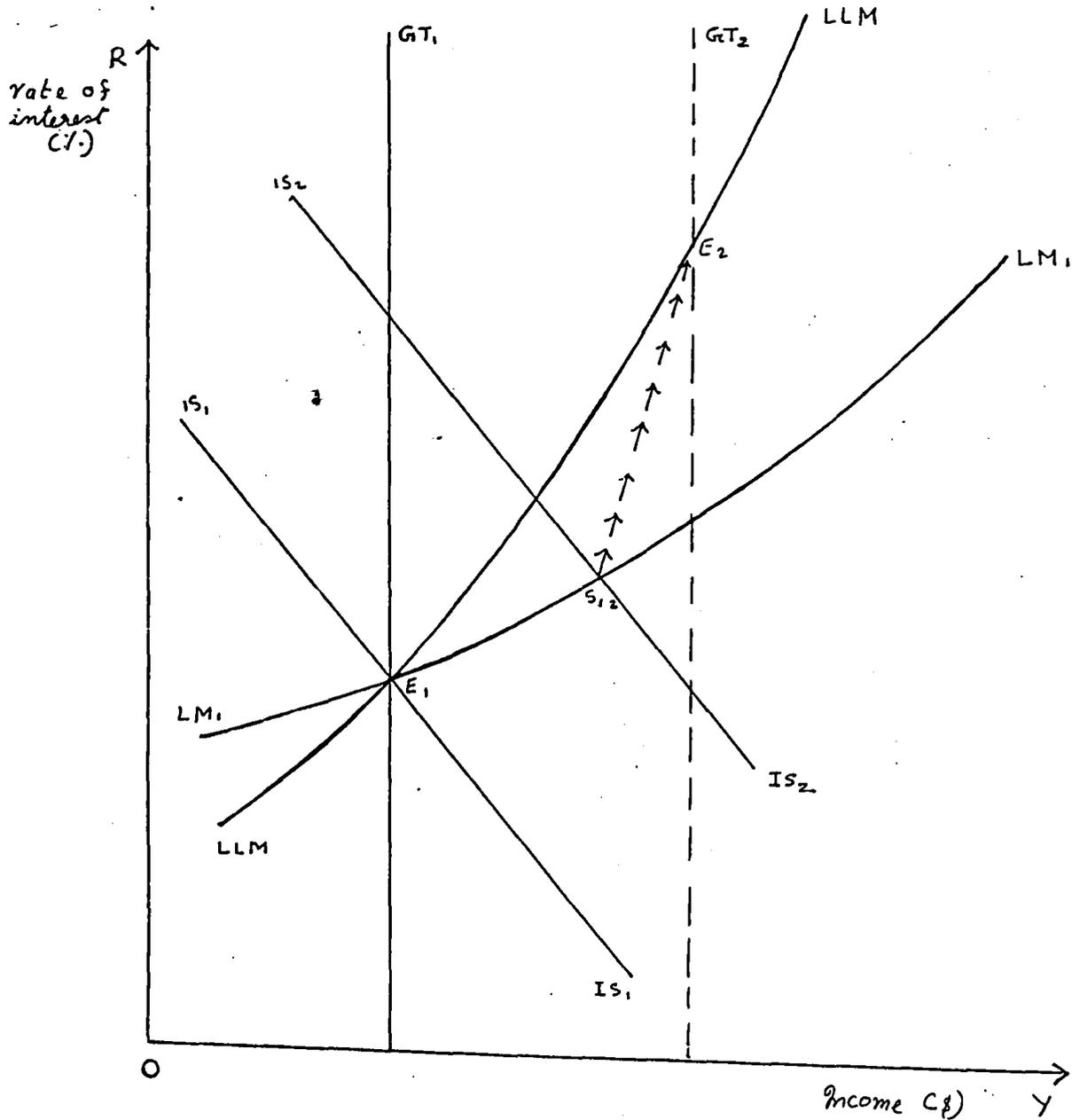
The decline in output from Y_f to Y_0 also reduces asset prices and market interest rates below the long run equilibrium point Z . At output Y_0 , the budget deficit is D_0 in Panel 2.

Adjustment in the output market raises output and

price level of new production (p). Point A shows the direction of change in i and Y . Point A is an equilibrium position for the asset market but not for the output market. Real expenditure exceeds output at A also, prices and output continues rising. The budget deficit now is D_a . The adjustment thus continues till it reaches the long run equilibrium position, Z, where the budget is balanced and there are no issues of debt and money to shift the position of the AM curve. The final position reached and the speed of adjustment depend on the way in which the deficit is financed. If the deficit is financed by issuing debt, the budget line in Panel 2 moves to the right and it moves to the left if it is financed by issuing money. The total change in (private sector) output and price level of new production from $Y_0 P_0$ to the long run stock flow equilibrium, $Y_f P_f$ increases as the budget line moves to the left due to increase in debt financing. Thus, because real resources are fixed, the effect of a larger issue of debt is a larger increase in price and output. Similarly the speed of adjustment to equilibrium declines and the proportion of the deficit financed by issuing debt increases.

Tobin and Buiter's (1976)¹⁹ IS-LM model also requiring a balanced budget process is quite similar to that of Blinder and Solow. Using more than one variant of the basic IS-LM model, they have come to the conclusion that the stability considerations inherent in the balanced budget requirement

Figure 2.7 : Diagrammatic Representation of J. Tobin and W. Buiter's Short and Long Run Equilibria



Source : Tobin, J. and Buiter, W. "Long-Run Effects of Fiscal and Monetary Policy on Aggregate Demand," in Stein, L. Jerome (ed.). *Monetarism*. North Holland Publishing Company, 1976, p. 287.

generate a positive government spending multiplier. In this article, unlike Tobin's earlier article (1971), capital and bonds are taken as perfect substitutes in portfolios.

In Figure 2.7, LLM is the long run LM curve which is defined by the equation

$$L(r, 1/\hat{\mu}) \hat{\mu} Y = M$$

where, M is the nominal monetary debt of government,

r is the after-tax rate of return,

Y is the real net national product, and

μ is a constant.

GT is the long run budget-balance denoted by the equation

$$G' - \phi Y = \dot{D} = 0$$

where G' is the real government expenditure including net debt interest,

ϕ is the tax rate,

D is the nominal government interest-bearing debt, and the dot denotes change.

The IS and LM are short run IS and LM curves. The short run LM relation is implicit in the equation

$$L(r, Y/W) = M,$$

where W is the real private wealth and is defined as $K + [(D + M)/P]$.

The short run IS locus is derived from the usual identity that capital accumulation equals the sum of private and public saving.

$$\dot{K} + \dot{G} = \dot{W} + cY$$

where, $\dot{K} = i[F(R) Y - K]$, and

$$W = S(\hat{u}Y - W).$$

From the combination of the above equations, we get the IS curve equation:

$$\begin{aligned} i[F(R) Y - K] + G' &= S(\hat{u}Y - W) + \phi Y \\ &= iF'(R) Y - iK + G' = S\hat{u}Y - SW + \phi Y \\ Y[S\hat{u} + \phi - iF(R)] &= G' + SW - iK. \end{aligned}$$

In the figure, the short run LM_1 and IS_1 curves are at the initial equilibrium E_1 , corresponding to the equilibrium stocks W, K, D, M . An increase in G' will shift the GT curve to GT_2 and the new equilibrium will be E_2 . The immediate impact of the increase will be to shift the IS curve to IS_2 producing a short run solution S_{12} . The S_{12} is shifted horizontally from E_1 by less than the long run multiplier and also indicates that at S_{12} the budget is in deficit. At S_{12} both W and D are increasing. LM will be shifting up. Growth of wealth also shifts the IS up. An increase in Y raises the demand for capital but an increase in R lowers it. On the path from S_{12} to E_2 stocks of assets, other than M , are increasing and shifting upward both IS and LM . Thus, an increase in government expenditure leads to a new long run equilibrium with higher real income.

The Tobin-Buiter long run effect of fiscal policy depends on increasing wealth which is based on the crucial

assumption of an interest elastic demand for money balance. If this assumption is not satisfied, then the government bonds would "crowd out" private debt completely.

Commenting on Tobin and Buiter's article, P. Cagan²⁰ states that a change in government expenditure financed by borrowing will have a stronger effect on aggregate demand in the short than in the long run. This is because an increase in government expenditure produces an immediate increase in aggregate expenditure ensuring multiplier effects on household expenditure. The offsetting effects of the rise in interest rate due to the rise in government expenditure, which will cut back private investment, will take longer. Therefore, the effect rises to a peak in the intermediate run and thereafter reduces.

Like M. Friedman, Blinder and Solow, and Tobin and Buiter, Benjamin M. Friedman (1978)²¹ also speaks about portfolio crowding-out. According to him, debt-financed deficit need not crowd out any private investment. On the other hand, it may even crowd in private investment. Whether the portfolio effect of bond-financed deficit spending crowds out or crowds in private investment depends on whether bonds are close portfolio substitutes for money or for capital. This he summarized in terms of a relative substitutability index which is defined as "the ratio of the substitutability of bonds for money (and vice versa) to the substitutability of bonds for capital (and vice versa) i.e.,

$\sigma = m_2/b_3$, where m is the substitutability of bonds for money, b is the substitutability of bonds for capital and σ is the index of relative substitutability.

If the bonds are close substitutes for capital but not for money, m_2 is small and b_3 is large; then σ is small. If bonds and capital are perfect substitutes, $\sigma = 0$, and if bonds and money are perfect substitutes $\sigma = \infty$. Portfolio crowding out occurs when the ratio of the substitution coefficient between bonds and money to the substitution coefficient between bonds and capital is smaller than the ratio of the respective wealth coefficients of the demand for money and capital. If the two ratios are precisely equal, there is no portfolio effect and the IS-LM analysis is adequate to describe bond-financed government deficit.

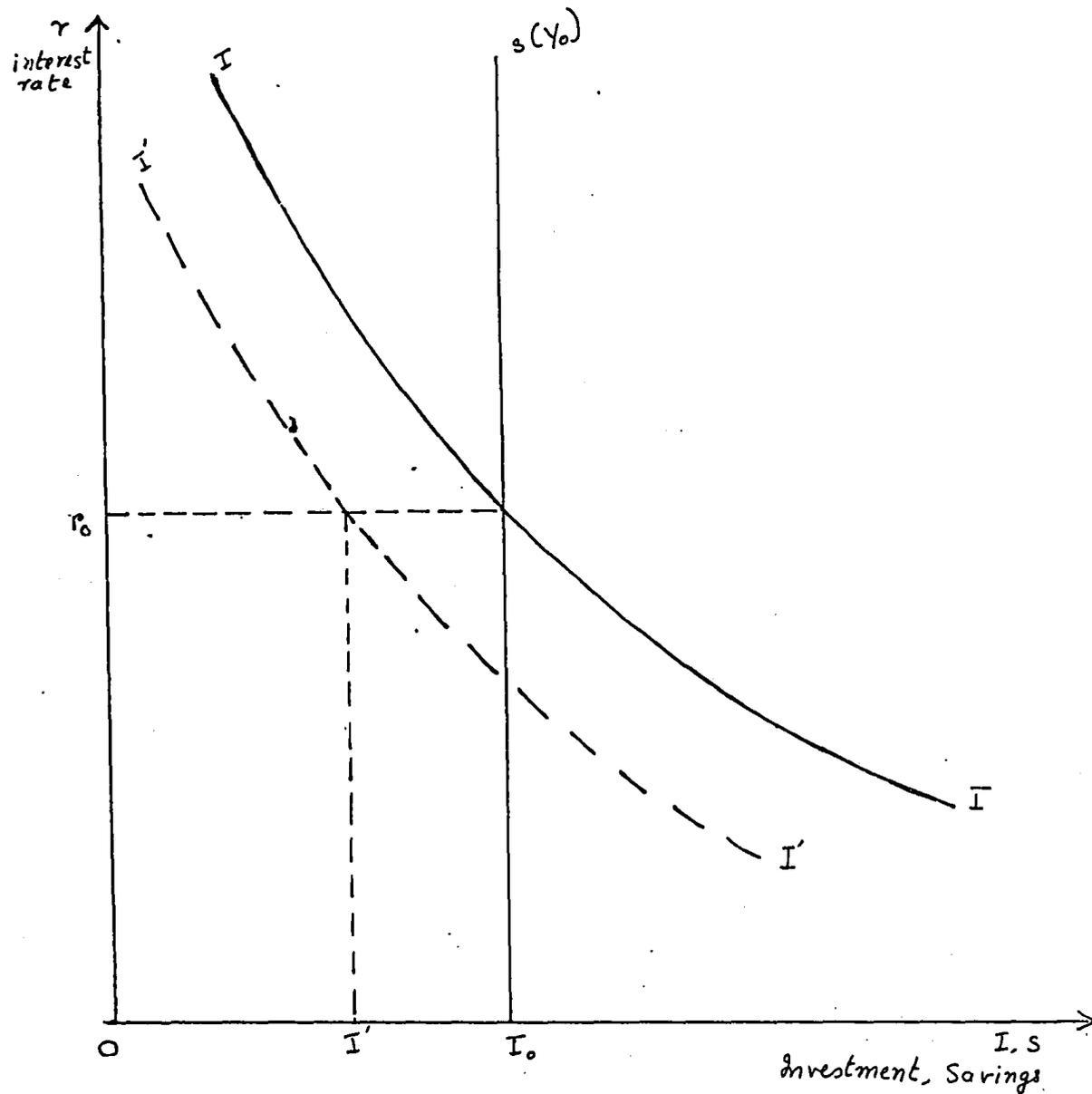
In recent years the increasing use of rational behaviour model in macroeconomics represents a serious challenge to Keynesian theory of fiscal policy. It can be considered as a logical extension of the monetarist line of theorising. It is based on the assumption that the private sector or the individual economic agents are ultra rational

In the ultra rational hypothesis of David and Scadding (1974)²² government expenditure is taken to be a close substitute of private expenditure. The households treat deficits as public investment and regard the public and private sector investment as interchangeable. This has been referred to as 'ex ante crowding out' and is different

from 'ex post crowding out' where, in full employment, an increase in government deficit displaces an equal amount of private expenditure through a rise in interest rate. Thus, if private debt issues are displaced ex ante by government bonds, changes in public expenditure will not affect aggregate demand and output. Nor would there be any larger multiplier attached to debt financed government expenditure.

In Figure 2.8 the vertical line (SY_0) is the supply of loanable funds for an initial equilibrium level of output of Y_0 ; Schedule II, the marginal efficiency of the investment curve, represents the demand for funds for investment. Initially, there is no government borrowing and equilibrium occurs with the interest rate at r_0 and the level of investment at OI_0 . Now suppose the government borrows ΔG , the ex ante case is shown in the figure, where the private sector treats the government deficit as part of investment and incorporates it into the investment Schedule II. The demand for private investment therefore declines by ΔG to $I'I'$ and the rate of interest is unchanged. Thus, though tax financed government expenditure will displace private expenditure and government bond issues will replace private debt dollar for dollar, the total demand for goods and services in the economy is not changed. There is, therefore, both nominal and real crowding out.

Figure 2.8 : Diagrammatic Representation of David and Scadding's Ultra Rational Hypothesis



Source : David and Scadding. "Private Savings: Ultra-rationality Aggregation, and 'Denison's Law'," Journal of Political Economy, Vol. 82, 1974, p. 249.

2.4 Conclusion

The crowding out debate is no longer on whether debt financed government expenditure crowds out private expenditure or not. Both the fiscalists and the monetarists agree that the increase in employment might not be the multiplier times the increase in government expenditure because of several offsetting influences like possible adverse reactions on private investment, confused business psychology and a tendency of the marginal propensity to consume to decline with rises in employment.

The controversy now is on the degree of crowding out and the time taken for crowding out to take place. As Friedman keeps insisting, the differences between the monetarists and fiscalists are "empirical and not theoretical".²³

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CHAPTER III

EXTERNAL DEBT

In the previous two chapters the economic consequences of internal borrowing on the economy have been discussed. This chapter deals with external borrowing. Besides studying the positive and negative aspects of external borrowing, a brief review of the debt crisis presently faced by the third world countries is also made.

Borrowing and lending across political border is not a new concept but dates back to the ancient Mediterranean civilization and may be even before that. In the sixteenth and seventeenth centuries, growth of financial institutions in Europe helped international borrowing. By the middle of nineteenth century, Great Britain had become the world's supplier of capital. Today, the flow of funds is from the developed Western countries and Japan to the underdeveloped third world countries.

External borrowing is defined by Kaj Areskoug as "the acceptance by a government or a government agency of real or financial resources from an external source, with the obligation of relinquishing (repaying) such resources in specified amounts to that source at one or several specified future dates."¹

Section I and section II of this chapter respectively discuss the benefits and burden of external debt. They make an attempt to explain how borrowing from abroad affects the borrowing country's economy.

3.1 Benefits of External Debt

Government borrows for the same reason as the private individuals do (to augment the resources currently available to them. Lack of resources can prove to be a big hurdle for the success of many of their plans and policies. The development of any country requires capital which has been defined as "the stock of goods which are used in production and which have themselves been produced".² Most of the developmental economists like A. Lewis, P. Rosenstein-Rodan, R. Nurkse, etc., have emphasized the role of capital in development process. When a country is unable to save by forgoing consumption, it will have to resort to borrowing from abroad to help the economy to come out of the quagmire of poverty and underdevelopment. The borrowed capital acts like a catalyst to development. In the post-war period, most of the colonial countries, freed from their imperial masters, set out to find their paths of development. Growth targets and development plan of developing countries were generally ambitious relative to domestic resources. A country setting out to develop its economy requires fulfilment of several factors such as an increase in human skills, a rise in the level of investment and saving, adoption of more productive

technology, a substantial change in the composition of output and employment, development of new institutions, etc. These bottlenecks can lead to underutilization of existing factors and slowing down of the development process. To overcome these hurdles and to give a momentum to the development process, help is required from external sources. Without external assistance, the country must provide for all of its requirements either from its own resources or from imports paid by exports. But failure to provide these requirements can frustrate a country's attempt to increase its output. External borrowing widens the choices of a government in determining the use of resources over time and creates additional opportunities for resource allocation.

External borrowing by relieving these constraints can make possible fuller use of domestic resources and hence accelerate growth. Some of these bottlenecks can be temporarily relaxed by borrowing external resources for which current payment is not required. A country's own resources can also be made use of more efficiently in the absence of the above-said hurdles.) Of course, as Rosenstein-Rodan³ said, the function of outside capital is not to directly raise the standard of living in the debtor country but it is to allow them to move out from conditions of economic stagnation to a stage which will sustain economic growth.

According to Kindleberger,⁴ borrowing from abroad is needed to add to the total resources available for economic

development, and not to make development possible by providing a limited range of resources which the country does not possess. Every country is naturally endowed with certain resources in the use of which they have comparative advantage over other countries. Foreign loans act on these already existing resources. Providing altogether a new set of resources will only make the country permanently dependent on external sources. A country can develop without borrowing externally as long as it has the capacity to redistribute its resources from one sector to another. But if the country does not have this capacity or lacks the time to effect such transformation, then it becomes essential for it to borrow to get foreign investment equipment for development purpose.

(Jan Tinbergen has given six reasons for the government borrowing externally.⁵ They are:

1. To increase National Income,
2. To improve the employment situation,
3. To maintain balance of payment equilibrium,
4. To maintain price stability,
5. To redistribute income, and
6. To achieve a balanced regional development.

Of all the above objectives, increasing national income is often considered to be the main objective. The prudent use of borrowed funds will induce output growth through an expansion of domestic investment. The rise in national income will permit a higher level of future consumption. If the current borrowing is used for financing imports

of capital goods, this may lead to an increase in investment or better utilization of existing capacity, which in turn, may lead to a rise in demand for labour. Borrowed funds by replacing the exchange losses can cushion effects of a deterioration in terms of trade or fluctuations in export receipts. In addition, borrowing can support a payment deficit while making necessary structural adjustments in the economy or simply to tide over a short term temporary adjustment. A government can ease the pressure on prices by resorting to borrowing abroad as a means of enlarging the amount of goods and services available in the domestic economy. The role of external borrowing in redistributing incomes or in reallocating resources regionally is less obvious. But external loans do help the government in widening the scope of government policies aimed in these directions specially when taxation system is inadequate or the domestic borrowing power is insufficient.

Most economists have stressed the investment-expanding role of external borrowing. It is widely believed that the actual effect of borrowing in the past has been, and in the future will be, a commensurate increase in domestic investment. Foreign capital supplements national resources and helps the rate of capital formation. This leads to a higher rate of investment and hence a higher rate of income growth which is considered desirable from the standpoint of both borrowers and lenders.

External borrowing also widens the choices available to a country in determining the use of its resources over time. Borrowing creates additional opportunities for an intertemporal reallocation of resources. The time path of consumption is affected directly through the allocation of borrowed capital to consumption. This is done through additional net imports of consumer goods.)

The need for foreign borrowing by the less developed countries has been explained by Chenery and Strout⁶ by the two gap model. The two gap model starts from the basic identity of national income accounting which states $Y = C + I + X - M$, where Y = national income, C = consumption, I = investment, X = exports and M = imports. This identity can be written as $Y - C - I = X - M$ or $S - I = M$ (as $Y - C = S$). The difference between saving and investment ($S - I$) is called the saving investment gap and the difference between exports and imports is called the export-import gap. The identity between the two gaps implies that an open economy can invest more than it saves only if its imports exceeds exports. The differences between imports and exports will then be covered by foreign borrowing. In this sense, foreign borrowing is necessary to supplement domestic saving and to raise investment beyond the savings permitted by the domestic economy. Further, it is expected that as investment takes place during the process of economic development the level of income will increase and the need to borrow will be less in future periods.

(According to Kaj Areskoug,⁷ external borrowing can, through changes in imports and exports, serve four distinct purposes:

1. Expand domestic investment and thereby further consumption opportunities,
2. Reallocate consumption intertemporally,
3. Finance international arbitrage through private capital flow, thereby increasing further income from abroad and hence future consumption opportunities,
4. Augment foreign reserves, thereby reducing the risks of unanticipated fluctuations in future consumption opportunities.)

Thus, in recent years external borrowing has become essential for the development of an economy. Whether borrowing is a good idea or not finally depends on whether the loan is used productively or not. (As long as the loan is used for projects which yield a return which is higher than the interest rate at which the loan is taken, it will be no burden for the country as it will generate its own repayment capacity. But if the foreign loans are wastefully spent, the obligation to repay the debt will leave the country worse off than if it had not borrowed at all.)

How does one decide whether the loan is economically warranted? Goran Ohlin⁸ has warned against borrowing for an excellent development project when the whole economy is in shambles. If this project fails, the loan will nevertheless

have to be paid. Even if it is successful the repayment may be made difficult due to the stagnation in the economy as a whole. Goran Ohlin has compared the whole economy to a company and has said that just as it would be foolish to lend money to a company for a promising extension, when the rest of the enterprise is in disastrous shape, so would it be foolish to lend money to a promising development project when the rest of the economy is in a bad shape. Thus, it is not the capability of the project to carry the cost of the loan that is to be considered while borrowing from abroad.

(The usefulness of external borrowing is determined by comparing the social benefits or productivity, with the social cost of transactions.) A government should accept external loans up to the point where the marginal social benefits equal equal marginal social costs. The social costs of borrowed capital are the reductions in welfare resulting from reduced opportunities caused by repayment and the social benefits are the increase in the welfare due to increased flow of capital. These benefits and costs are determined by the government's definition of and approach to promoting the country's welfare. According to Goran Ohlin, the social return to capital or the accounting rate of interest serves as "the lower cut off point for projects to be undertaken and a higher limit for foreign borrowing".⁹ Thus, (for a loan to be effective the social return to capital should be above the effective rate of interest that is to be paid on the instalments of loan.)

According to Avramovic¹⁰ et al, the benefits of foreign capital depend on the following.

1. The efficiency with which foreign capital is translated into income. Foreign capital raises the rate of income growth by raising the rate of investment. The return on investment determines the rate of economic growth.
2. The extent to which additional income stream is saved and used to finance domestic investment or development expenditure. The higher the marginal saving rate, the greater is the capital accumulation rate and higher is the income growth.
3. The rapidity with which internal structural adjustments are made should reflect in the composition of imports and exports of the country.

The benefits derived from loan finance are compared with the cost of foreign capital, which depends on interest rate, grace period and period of repayment. On the basis of the gross capital inflow, Avramovic et al have decided a debt cycle which is related to the course of economic development. This cycle is divided into three stages.

(In the first stage, the country is underdeveloped and domestic saving level is too low to finance domestic investment. The country has to borrow from abroad, both for investment purposes and for interest payments for previous debts. In this stage the burden for servicing debt is

postponed to future. The law of compound interest operates here and the longer the stage lasts the greater would be the burden of repayment.

In the second stage, development begins and savings have grown enough to finance all the domestic investment required. But savings have not risen enough to meet the burden of interest and amortization payment of accumulated debt. As development continues, an increasing part of interest payment will be met by internal saving. By the end of this stage, borrowing has reached its peak, and will cease to grow.

In stage three, domestic saving has grown sufficiently not only to finance its own domestic investment but also to bear the entire cost of accumulated debt. The country now has a surplus of saving and can start amortization of debt while, at the same time, maintaining its economic growth. The debt cycle is complete. The country has achieved economic growth with the help of foreign capital.

This cycle makes it clear that external borrowing is necessary for the initial development of the economy. The first two stages of development is sustained by external debt and helps the economy to attain the final stages of growth where the country has freed itself from external help. Thus, most of the developmental or liberal economists believe that foreign borrowing is something positive and intrinsic to economic growth. A majority of growth models followed by the

mixed or market economies of the world rely on transfer of resources from industrial countries. ✓

3.2 Burden of External Debt

(In spite of the many theories in support of the positive role of development process, it is observed that, after more than forty years of external borrowing following World War II, poverty conditions in developing countries were worsening and that external capital has not had the expected development effect.) Thus, theorists have challenged the "all you need is more capital" approach to development and have criticized external debt for their negative effect on the economy.

The traditional assumption of public debt is that each dollar of foreign resources results in an increase in investment or import by an equal amount. (Foreign resources add to domestic savings and domestically financed imports. This assumption is now questioned by the critics who assert that foreign resources instead of adding to domestic savings, actually supplant them. This is because when a country receives resources from abroad, they are lulled to a feeling of false security. Private entrepreneurs, finding loans available abroad do not restrict their own consumption. Governments too, finding abundant resources abroad, expand their consumption and refrain from raising taxes. Thus, instead of encouraging savings, external finance enjoys consumption which will take the country deeper into debt.)

Foreign assistance may also retard long run economic growth by altering the composition of investment to the disadvantage of the receiving country. Most of the foreign assistance is given to projects which are not directly productive or have long gestation period, for example, for construction of roads, dams, etc. All these projects are desirable but their impact on the development of economy is slight and long delayed. Even when the foreign assistance is for directly productive activities, their effect on growth is very small. This is because a lender country will lend only for those projects which will ultimately be useful to them. These may involve manufacturing goods that require considerable capital. Capital intensive techniques are not appropriate in countries with scarce capital. The development of these capital intensive industries only make the borrowing countries more dependent on developed countries for the import of materials and spare parts which will be a strain for the balance of payments of the country. Moreover, due to excessive attention given to the creation of new industries the existing industries producing primary goods may suffer and export earnings may fall.

Sometimes foreign assistance is tied to purchases from lending countries. These kinds of lending help exporters of the donor country more than the borrowing country. The freedom of the borrower to select the cheapest equipment is hampered and the receiver is forced to accept very expensive equipment

and the construction of plants of less than optimum scale. This need not always be true. But if it is true, the borrower is, from the beginning, encumbered with a costly operation.

(Foreign assistance also hinders the growth of local entrepreneurs who are unable to compete with imported capital intensive techniques.) It also hinders political and institutional reforms in the donor country. According to K. Griffin and J.L. Eros, "Foreign assistance enables those in power to evade and avoid fundamental reforms; it does little more than patch plaster on the deteriorating social edifice."¹¹

(Foreign assistance has also been used as a political instrument to gain power and influence over recipient governments.) According to Marilyn J. Seiber, it "creates a dependent relationship between donors and recipients and fosters a patronizing belief which say that third world countries cannot progress without the external assistance, guidance and knowledge of Western industrial countries."¹²

(The flow of resources from an industrial country which has abundance of saving compared to the investment opportunities to developing countries may be natural. But it must be remembered that this natural flow of resources from the former to the latter also gives rise to another flow in the opposite direction. This opposite flow takes place when the borrowers have to remit resources to pay

interest and amortize the principal. As Kaj Areskoug has said, "Repayment can be regarded as equivalent to negative borrowing or lending."¹³

It is very easy for the developmentalists to say that as long as the borrowed resources are used productively, repayment should not be a burden. But it must be remembered that foreign capital is just one of the factors required for the growth of the country. Failure of any one of the other factors like human skills, proper technology, etc., can prove to be a major hurdle. Moreover, no country can grow in isolation. If the economic environment of the world is not suitable, the country will regress rather than progress and external debt will speed the process of regression. The oil shocks of 1973, 1979 and the more recent one of 1990 illustrate this. Due to these shocks, even those countries which were till then doing well had to suffer.

Debt servicing in terms of a transfer of real resources from indebted developing nations to richer industrial countries results in a decline in investment in the debtor nations. This slows down the rate of growth and reduces aggregate spending. According to some economists, this cut in spending can create a favourable balance of payment position. A cut in spending will reduce import demand and will free more exportable goods for sale abroad. This can generate trade surplus needed to service debt. But this tendency may not be strong enough to create a favourable

result. What really happens due to cut in expenditure is increase in unemployment and underemployment and reduction in the standard of living. This will have serious implications for the future of the world economy. Development will not only come to a halt but will take several steps backward. The example of Latin America is a classic example where such 'development' has taken place.) As Sue Branford and Bernardo Kucinski had remarked, "Millions of abandoned children, millions of unemployed, some of the lowest wages on earth, that is what the debt crisis has meant for Latin America."¹⁴

(One of the major sources of high inflation in the third world countries in recent years is external debt. There are three major ways by which inflation occurs in an economy. The first is caused by the impact of more expensive exported goods on the cost of living index. Increase in export is needed to repay the debt but this increase will reduce the supply of goods in the domestic market. This will raise the price of domestic goods. Inflationary pressure also occurs because most of the new loans are used to service old loans and a very limited amount enters the country to finance productive activities which can produce the foreign exchange required for debt servicing. The third source of inflationary pressure is structural. The foreign exchange received from exports is used up to service debts. In a way, the foreign exchange is also exported and the debtor country receives nothing in exchange for the goods sold. The exporter is paid

the equivalent amount in local currency but there are no equivalent product produced for him to purchase. This leads to the classic case of a large amount of money chasing a small quantity of goods. This results in increase in prices and inflation.

Along with the direct costs of external borrowing, there is also indirect cost of borrowing. According to Gerald M. Meir,¹⁵ the burden of debt is not only the direct service charge but also the indirect cost of borrowing. The indirect cost of borrowing consists of the cost of policies that are undertaken to generate foreign exchange for the payment of debt. Take the example of devaluation - one of the many measures that is often resorted to by the borrowing countries to gain competitiveness to service external debt. Devaluation will increase the value of debt service in home currency. This will mean larger budget deficit and higher rate of inflation. The inflationary consequences of debt service in home currency provokes "Capital Flight".

Capital flight has been defined by John J. Cuddington as the "short-term speculative capital outflows".¹⁶ In recent years the view that a rapid rise in foreign debt of developing countries has financed capital flight rather than productive investment is becoming popular. One of the salient features of Latin America's debt problem is the co-existence of inverse capital flow. Along with external capital flow into the country, private capital was flowing

out. Since a large portion of debt was government guaranteed, it was the government obligation. The private investors, by making massive switch from domestic financial assets to foreign assets, were reducing their exposure to public debt.

One reason for this portfolio substitution by domestic investors is the availability of asymmetrical information to the economic agents. The domestic creditors predict crisis well before the foreign banks and therefore transfer their assets to safer places before the axe strikes.

Another reason for these contradictory capital flows is that, domestic investors face greater risk of default on the part of government than foreign investors. Debt crisis corresponds with inability of the governments to service their debt, domestic or foreign. When faced with such situation, it is easier for the government to default on their obligation to domestic investors. All this requires is a discrete devaluation which, by raising the price level, erodes the real value of domestic debt. Faced with such a situation, domestic wealth-holders are "likely to be the first to pull the trigger on the debt crisis because they perceive themselves as 'junior creditors'."¹⁷ Moreover, government may start taxing domestic assets in order to find revenue for servicing external debt. In this case also capital flight is encouraged. Ironically, it is a country committed to servicing its external obligation that is prone to capital flight. This is because domestic creditors

suspect that the government may be able to maintain external debt servicing only by taxing domestic assets.

Debt crisis is not the burden of the debtor countries alone. It can have and has an adverse repercussion on the developed countries also. This is the main reason that today the developed countries are so concerned with the debt problems of the developing countries and are trying to find an answer to the problem. A default on the part of a debtor country will erode the capital of the creditor country and will threaten their solvency.

Moreover, the world trade can be badly affected by the third world debt. Developing countries have the fastest growing markets for the produce produced in the industrial countries. If the debtor countries spend a major portion of their export earnings for debt servicing, they will be unable to buy industrial countries' export products. If domestic investments in the developing countries suffer, there will be no demand for capital goods, technology and services from developed countries. Some industries like the arms industries in the developed countries depend on the demand from the third world countries. Lack of demand can cripple these industries and thus the economy of the developed countries.

Thus, where developed countries are dependent on the developing countries the reverse is also true. This has been clearly stated by Richard Gott. "Third world countries

are often portrayed as victims, manipulated at will by the rapidity or evil motives of larger and more imperialistic states. But in some ways the situation is reversed. The developed and the developing countries are so economically enmeshed that it is felt that developing countries can actually do harm to the developed countries."¹⁸ Default by the developing countries can make the banks in the developed countries insolvent. They may raise the interest rate in the lending country and reduced credit will be available to the citizens of the lender country. This can increase their unemployment level and the progress of developed countries would slow down.

But if ever such a situation occurs, the developed countries will have the proper weapons to fight it. And it is more than likely that the entire burden will be shifted to the politically and economically weak underdeveloped countries. Fidel Castro, in an interview published in a newspaper called 'Juros Subversivos' has clearly brought out the difference in the attitude of developed and developing countries towards debt. He had said, "We are caught up in the third world war, an economic war. It is an undeclared war, over the extortionate interest rates of the debt. The corpses are already piling up, but the aggressors maintain that the war doesn't exist, that the dead are alive and healthy."¹⁹

3.3 Conclusion

It can thus be concluded that external borrowings can either make or mar a nation. It can expand domestic investment, reallocate consumption intertemporally, finance international arbitrage and augment foreign reserves. In the earlier decades, foreign assistance was a blessing for the developing countries, as it brought food and medical aid, modern technology and technical assistance and foreign exchange as a source of capital formation to bridge the gap in the domestic resources. But since the late 1970s, economic problems like worsening of trade conditions, decline in the prices of primary products, deteriorating balance of payment and rampant inflation made it impossible for developing countries to service their debt. Besides the above economic problems, mismanagement of borrowed funds and unstable political conditions in these underdeveloped countries also had a hand in turning the debt problem into a crisis.

Chapter IV narrates the story of the growth of recent debt crisis and the different ways in which the international community has tried to overcome it.

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CHAPTER IV

RECENT DEBT CRISIS

Since 1982, the debt crisis of developing countries has been the focal point of attention for economists, policy makers and news media. It first became news in 1982 when the Mexican government made an announcement that it would no longer voluntarily service its debt. Thereafter, many other countries have also made similar announcements.

In this chapter a brief review of the evolution of the debt crisis in the post-war period is undertaken to show that debt financing has not always been successful.

Soon after the World War II, in the 1950s, large long-term capital inflows did not take place mainly because of the economic policy of the developing countries which tended to reject international market and to erect high walls of protection around their "infant" industries. But in the late 1950s and early 1960s, with the liberalization of trade and recovery of Europe, the principal long-term flows were between North America and Western Europe. At about the same time, a few developing countries like Taiwan, Korea, Singapore, Hong Kong, etc., steered their economies away from state control towards greater reliance on incentives and achieved a much increased real rates of return on investment. By the early 1970s, the

East Asian countries were accepted as credit-worthy participants in the international economy.

When the oil price rose sharply in 1973-74, the current accounts of many oil-importing developing countries showed sharp deficits. At the same time, many of the OPEC countries had surplus in their current account and were depositing their receipts in major commercial banks in the United States and Western Europe. The natural outcome was for these banks to lend to developing countries. Oil-importing countries who could not quickly expand their export or reduce their imports had no other alternative but to borrow to finance their deficits.

Some of these borrowing countries took appropriate measures to reduce expenditures relative to income. They raised the domestic price of oil and let the exchange rate depreciate to render exports more attractive and to discourage the consumption of importables. These countries, mainly the East Asian countries, were able to restore their current account deficits to levels consistent with sustainable long term growth by mid-1970s. But the debt of other countries which did less or almost nothing except to borrow, increased. External debt of all developing countries increased from \$90.6 billion in 1972 to \$404 billion in 1980.¹ Several countries like Turkey, Peru, Jamaica, Argentina, Sudan and Zaire faced one or more debt crises in the 1970s and had to undertake debt rescheduling as part of a policy reform programme.

The impact of the 1979 oil price increase on most developing countries was similar to that of the 1973-74 increase. But by then, most developing countries were already incurring larger than sustainable current account deficits. The oil-importing countries could not sufficiently adjust their exports and imports to prevent sharp increase in current account deficits. With worldwide disinflation, export prices began declining sharply while interest rates were rising. Moreover, the worldwide recession which set in late 1980 was protracted. Most of the East Asian countries had difficulty in adjusting to their deteriorated terms of trade; they however managed to avoid 'debt crisis'. Some countries in South Asia had insulated their economies from international market so well that they did not encounter major problems.

But, in 1982, Mexico announced her inability to service debt. This was a major shock to international community because Mexico's creditworthiness was never questioned. But after this, the attention of the entire financial community was focussed on developing countries' debt. If Mexico, a country with known oil reserves, could face trouble then surely other less fortunate countries will also have trouble in servicing their debt. Therefore, the immediate consequences of the Mexican announcement was that the commercial banks became less willing to lend to developing countries. The reduction in the availability of new lending resulted in the inability to maintain debt servicing and the debt 'crisis' began.

Though the world community has been dealing with every debtor country individually, not many countries have been quite successful in overcoming the 'crisis'. Moreover, growth rates of many developing countries have remained very low.

The overwhelming bulk of the third world's debt has been incurred by the middle income developing countries rather than the poorest. This is because the poorest countries, in the face of sharp deterioration in their terms of trade, were unable to finance their import needs and so cut them back severely. Their very lack of creditworthiness prevented them from accumulating debt. But, on the other hand, many of the better off developing countries continued borrowing, to maintain their investment and other programmes.

Anne O. Krueger² has listed three factors which have contributed to the failure of most of the developing countries to attain satisfactory growth rates and to restore creditworthiness - two are country-specific factors and one is global. Globally, the sluggish growth of the international economy has dampened the rate at which exports of developing countries could grow. At country-specific level, the extent of needed policy reforms have been systematically underestimated. Many of the policies were politically motivated and there was strong resistance to change. Secondly, financial packages have very often failed to be forthcoming when policy reforms have been adequate. This has slowed down

the rate at which resources could be reallocated in response to altered incentives in some instances where there appears to have been appropriate reform packages.

G.K. Helleiner has also given similar reasons for the continuation of global debt problem. The reasons advanced by him are the following:³

1. The debt problem cannot be disassociated from the whole range of other trade and financial issues which remain a source of conflict between North and South.
2. The "success" associated with financing problems and debt accumulations of the past few years may be irrelevant as guides to the resolutions of the debt related issues of the future.
3. There exist major shortcomings in the way the world financial system at present protects developing countries, and perhaps the industrialized world as well, from major external shocks.

J. de Larosiere, the then Managing Director of IMF has identified four factors for the eruption of debt problem in 1982.⁴ First, inappropriate domestic policies like over-expansionary fiscal and monetary policies, overvalued real exchange rates, price and interest rate rigidities played an important role. Second, adverse developments in the world economy like large increase in world oil prices, recession in industrial countries, severe deterioration in terms of trade for non-fuel exporting developing countries and soaring world interest rates all created serious difficulties. Third,

the terms and availability of external financing also played a part. Overborrowing due to negative real interest rates in 1970s, sluggish investment demand in industrial countries and large surpluses in oil exporting ones and the erroneous expectations that whatever might happen to lower export earnings of developing countries would also lower world interest rates in proportion - where all factors in the over-exposure of banks. And finally, fallacies in economic thinking also contributed to the problem.

Developed countries also have a hand in the continuing debt problems faced by the developing countries. Many economists feel that the less developed countries (LDC) debt problems would not have reached such troubling dimensions, had the major industrial powers and official institutions played a major assertive role in the initial period following the oil shocks. The debt situation requires imaginative solutions involving debt restructuring and relief and this requires the cooperation of all the countries and the financial institutions.

The world's approach to the debt crisis has been worked out in three stages. The first stage extended from 1982 to 1984, the second stage from 1985 to 1988 and the third stage from 1989 to 1992.

In 1982, when the third world's financial squeeze became a full blown crisis, the International Monetary Fund (IMF) tried to de-escalate the problem. The IMF, backed by

creditor nations, forced both bankers and debtors to join in rescue operations. Public agencies, private banks and debtors joined in the endeavour on account of the mutuality of their interest. But any help from the international community was on the condition that the debtor countries made structural reform to their economies.

There is a growing belief that it is the inefficient economic policies followed by the debtor countries, that is the main reason for their present economic ills. State monopoly over agricultural and industrial sectors distorts prices and hinders competition. Government subsidies further distort prices and subsidies on imported goods worsen the balance of trade situation and reduce export earnings. Therefore, a great deal of attention is given to correct these internal sources of economic stagnation. For example, the IMF insisted that the indebted countries devalue their overvalued currencies so that imports would be discouraged and exports would be encouraged. It also insisted that government cut their expenditure and encouraged deregulation. The World Bank was also in the same business of structural adjustment lending and its reforms very often overlapped with the IMF reforms. But while the World Bank looked at the longer term goals of making third world economies function more efficiently, the IMF was concerned with short term policy designed to restore quickly the balance of payments and, where necessary, to curb inflation.

It is difficult to say whether the countries have benefited from structural adjustment lending. According to the World Bank, though some countries have suffered a fall in per capita investment, it is counter-balanced by several important benefits like stronger economic growth in about half the recipient countries, a boost in export and improved trade balance in about two-thirds of the countries. It was also seen that the more developed the economy was, the more effective the reform has been. The reform has made less impact on the heavily indebted countries and the poorest nations. The severe austerity programmes have put many debt-ridden countries into reverse gear. Since 1982, debt-ridden economies are almost stationary.

Critics of the structural reform feel that correcting domestic problem is not the answer to the crisis because the root of the problem lies beyond the control of the developing countries. They trace the problem to the colonial powers who exploited the countries for their own enrichment. More recently, the protective policies of the developed countries have discouraged the exports of the developing countries. Moreover, in the 1970s the lenders themselves, to gain quick profits, have aggressively pushed loans to the developing countries.

In 1985, the then Secretary of the U.S. Treasury, James A. Baker III, came out with debt initiatives popularly known as 'Baker Plan'. This initiative which he described as

"a program for sustained growth" has the following three essential elements:

1. "The adoption by principal debtor countries of comprehensive macroeconomy and structural policies - supported by international financial institutions - to reduce inflation and promote growth and external adjustment,
2. A continued central role for the fund and 'more effective structural adjustment lending' by multilateral development banks in support of adoption of market-oriented policies by indebted nations, and
3. Increased lending to the major debtor nations by private banks to foster 'comprehensive economic adjustment programs'." ⁵

Mr. Baker also suggested that World Bank commit a total of \$20 billion in net new lending over the next three years. The Baker Plan subsequently included market-based financing options such as debt-equity swaps and the exchange of old bank debt for new bonds. But this plan could not succeed because of lack of commercial bank credit.

The deteriorating economic and political conditions of the third world countries, specially the Latin American countries, made it necessary for the U.S. government to re-examine the debt strategy. A new plan was unveiled in 1989 by the U.S. Treasury Secretary Nicholas Brady. This plan builds up on the 1985 Baker Plan. Like Baker Plan, the Brady Plan recognizes that economic growth is essential to tackle the debt problem. And economic growth requires economic

policy reforms which will use resources more efficiently, encourage domestic savings and investment and attract capital from abroad. The World Bank and the IMF continue to have an important role in promoting structural improvements in debtor countries.

The Brady Plan, for the first time, offered financial support from the international institutions and the government of Japan for negotiated reduction in debt and debt services. Baker Plan also offered market-based debt reductions. Debt reduction is a voluntary scheme that reduces the debt burden of the debtor country. It can be achieved by negotiating changes in terms and conditions of contracted debt or by reducing the level of international debt. Debt reduction also promotes comprehensive policies of growth and adjustment by increasing the ability of the debtor countries to service their debt. Besides, reduced interest rates and extended maturities from those originally contracted, debt reductions also includes options outlined below:

1. Debt Equity Swap: In this option, the resident of the debtor country or foreign private corporation, buys the country's debt from a bank on the secondary market at a discount. The investor then redeems the debt at face value or a modest discount at the central bank of the country in local currency and makes equity investment in the country. The equity is substituted for debt.

2. Buy Backs: This is the simplest form of debt

reduction. Here, the borrower repurchases a part of its external debt at a discount from a willing seller. The proceeds of World Bank structural adjustment loans or IMF loans can be used to purchase the old debt.

3. Collateralization: Under this arrangement, an old debt is exchanged for new debt which is for a reduced amount of principal or which carries a lower rate of interest. The principal or interest on the new loan is collateralized. The Brady initiative envisages the use of World Bank or IMF resources for this purpose.

4. Guarantees: Under this arrangement, an old debt would be exchanged for a new debt which would be for a reduced amount of principal or for a lower rate of interest. The interest or principal or both carry a guarantee from the World Bank or IMF.

The Brady Plan is for a period of four years from 1989 to 1992. It is not possible to say as yet whether this plan would help mitigate the debt problem. One thing common to all the plans so far undertaken is the growing awareness that the debt problem is not the problem of only the debtor countries. It is the problem of both the developed and developing countries and can be solved by mutual cooperation and understanding.

Conclusion

An anecdote, which was published in Financial Times, 2nd March 1988, states most eloquently the debt condition of

the world. It goes thus: "General Secretary Gorbachev asks God whether there will ever be capitalism in Soviet Union and is told 'Yes, but not in your life time'. President Reagan asks Him whether there will ever be communism in the United States and gets the same answer. Then President Sarney asks whether Brazil will ever pay off its debts and the answer is 'Yes, bot not in My life time'."⁶

What is true of Brazil in the above story is true of all the debtor countries today. Debt crisis is like a quick sand in which the debtor countries are caught. The harder they struggle to come out of it, the deeper they seem to sink. Is not there a way out of ? The developed countries with the help of the international and domestic financial institutions have been trying to help these countries but without much success. The lack of success makes one wonder if the helping hand is for pulling the nation completely out of the sticky situation or if it is only to prevent them from sinking completely and to keep them at a level where they will require the helping hand to remain afloat. After all, it is in the interests of the developed countries to keep the developing countries under their control.

Instead of depending on outside powers for help, would not it be much better if the initiatives to end the debt crisis came from the debtor countries themselves? It is the developing countries who gain the most by ending the debt problem. So if all the ailing countries join hands they

can solve the problem with very little outside help. Efforts are going on in this direction. Associations like NAM, ASEAN have been started. But for this a stable political environment which is sadly lacking among the developing countries is required. Everything depends on how strong the desire of the debtor countries is to cure themselves and how much sacrifice they are willing to make.

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CHAPTER V

CONCLUSION

The economy of public debt constitutes one of the most polemical parts of fiscal doctrine. This itself reflects its strategic role in fiscal politics. It is no longer confined to the realm of economists, but is a matter of concern to the politicians and the public at large.

The role of public debt was very limited before the World Wars because classical economists were believers in a 'natural harmony' which made deliberate intervention in the economy unnecessary and detrimental. In those days, public debts were created during wars or national emergencies and retired during peace time. It is only in the recent past that there has been a substantial peace time accumulation of debt. In recent literature, the emphasis has shifted from whether or not debt matters towards that of the macroeconomic effects of public debt on the economy as a whole.

External debt has always been a matter of concern to the economists because a reckless use of it would lead to economic enslavement of a nation. Internal debt was also considered evil because it spelled burden to the future generations and also involved consumption of capital. These views of the classical economists have been debated upon

time and again and the profession is yet to arrive at any concrete conclusion regarding them.

Central to the debate on public debt, is the issue whether the burden of the debt is paid for by future generations. In Chapter I, we have seen three different views regarding the transferability of the burden of public debt between generations. The mercantilists thought that domestic debt will not transfer its burden to future generations because, it is just like the case of 'right hand owes to the left'. But this was rejected by the classicists who believed that loan finance by diverting funds from the maintenance of productive labour will impair the country's capital stock. This will affect the future generations. The Keynesian economists believed that the creation of debt is a necessary by-product of fiscal expansion needed to secure high employment. They restated the old doctrine of 'right hand owes to the left'. It now reappeared as "we owe it to ourselves".

It is often said that as long as the public debts are productively utilized it cannot be a burden. But what is meant by productive expenditure? Is military spending productive? If it is not, then a large chunk of government spending which is spent on military expenditure is unproductive. Or are only those government investments on projects which give a rate of return higher than the interest rate considered productive? If this is so, then government

spending on construction of infrastructures like roads, bridges and on social welfare programmes, which do not give any direct return would be considered unproductive. But can a country continue to progress without these expenditures? Social welfare projects like child care, primary education, etc., are social welfare indicators of a country. Without them the country would indeed be very backward. Similarly without the necessary infrastructure, a country cannot go very far in its march towards economic progress.

Borrowing by government during a severe depression is not considered a burden because the funds which would otherwise remain idle due to low interest rate is channelised into government investment. This view of Keynes is in contrast to the Classical economists who believed that government expenditure is unproductive and public debt involves transfer of resources from the private sector to public sector. Keynes, on the other hand, believed that the government's aim is to achieve full employment and the funds raised by public debt should be invested in putting otherwise idle men to work in those areas which are usually neglected by private investors. This kind of debt, therefore, cannot be evil. Keynes agrees that they can be cumbersome because the government must have a source of funds from which it can pay interest periodically. This problem can be solved by raising taxes and retiring debt during prosperous time. If this is not possible the

government can always resort to more borrowing.

The Keynesian view has however been severely challenged by a number of economists who argue that government spending financed by borrowing from general public savings may reduce other spending to such an extent that there will be little or no increase in total spending. In other words, they believe that public expenditure will crowd out private expenditure. According to them crowding out takes place when government expenditure is not accompanied by money creation. They agree that there will be a temporary increase in nominal income but over a long period of time there is no effect. The monetarists thus assert that government spending financed by borrowing from the public is mainly a transfer of resources from the private sector to the public sector without any effect on the economy as a whole.

Domestic debt, though a matter of great concern for the economy, takes a second place when compared with external debt. This aspect of public debt has been discussed in Chapters III and IV. External debt can have the same pernicious effect on the economic world as the atom bomb has on the physical world. It can either make a country or break a country. Countries, including the so-called developed countries borrow from abroad with the hope that the inflow of capital into the economy would help it to progress. After the World War II, West European countries

borrowed heavily from America. But they did not fall into the same trap as the underdeveloped countries. Where have the developing countries gone wrong? Maybe it was the developmental model that they followed that was wrong; or maybe it was the lack of competent leadership; or maybe it was the political disturbances - both internal and external - that plagues the developing world which has pushed the poor countries into the trap.

There are a lot of unanswered questions in this area of economics. These answers are important to prevent any new countries from falling into debt trap. Appropriate solutions to solve the existing problem have also to be found. The solutions sold by the World Bank and IMF are successful only in some countries. The debt problem of each country are highly individualized. They have to be studied independently and the solutions for different countries have to be worked out.

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Abbreviations used in Bibliography

AER : The American Economic Journal
JPE : Journal of Political Economy
JPU : Journal of Public Economics
JMCB : Journal of Money, Credit and Banking
JME : Journal of Monetary Economics

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