

# **CHAPTER II**

## **REVIEW OF THEORIES OF PUBLIC DEBT IN ECONOMIC LITERATURE**

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## **CHAPTER II**

### **BURDEN THEORIES OF PUBLIC DEBT** **IN ECONOMIC LITERATURE**

#### **2.1 CLASSICAL PUBLIC DEBT THEORY**

The economists favored public debt in the 18<sup>th</sup> century when there was an impact of Mercantilist doctrine. But in the 19<sup>th</sup> century the role of the State was restricted within the limit of some minimum functions. This was the view of classical economists who believed in “Laissez Faire” policy. These economists were of the view that the functions of the State should be minimum and the government had to maintain only internal law and order, defense from external aggression and look after some public works. They believed that full employment is existing in the economy and there is a perfect competition and mobility of factors of production in the market. They had more belief in individualism and felt that self-interest leads to national interest. There is no need of government intervention in the smooth going economic activities and if any calamity befalls it will brought to equilibrium point automatically. So if the government is performing minimum functions then there arises no question of huge public expenditure and for that no need of large public revenue. Further government did not require raising funds in the form of public debt also. In addition to this, they said that the government expenditure is wasteful and unproductive. As the supply of money is fixed, any amount that is transferred to the government will be at the cost of the private employment and private

expenditure and the funds so borrowed will be withdrawn from the productive uses and will be put into unproductive channels. Thus public debt will inflict unnecessary burden on the shoulders of the community.

Adam Smith, father of classical economist does not hold the view that, "The utilization of capital by government does necessarily destroy the actual existing capital."<sup>1</sup> But he explains further that, public borrowings does not create new capital, "Thus new capital, however, which they in this manner either bought or borrowed of other people, must have existed in the country before and must have been employed as all capitals are engaged in maintaining productive labour."<sup>2</sup>

Recardo also says that, "Public borrowing is withdrawn from the productive capital of the nation."<sup>3</sup> He believes that, "The distress of industry generally was due to want of the capital absorbed by the debt."<sup>4</sup> He explains that the interest to be paid is not a burden upon the economy, as it is just a transfer from one hand to the other or from the debtor to creditor of the same generation, but the principal of the debt exists no more. However, one another economist Harris held the view that, "The consumption which has followed the loan has annihilated a capital which will never yield any further revenue."<sup>5</sup>

J. B. Say also aggressively opposed public debt. For him, "There is a remarkable distinction between an individual borrower and a borrowing government, the former borrows capital for the purpose of the barren consumption and expenditure."<sup>6</sup> And he further conceived that, "Public borrowing is not only unproductive because the capital is consumed and lost, but, in addition, the nation is burdened by the annual

interest payment. It cannot be argued that the annual circulation of interest payments is a net addition to capital. ”<sup>7</sup>

Subsequent thinkers like Malthus, Mill, Sidgwick and Cairnes had some liberal views about public debt and about its burden. J. S. Mill says that public debt is not burdensome in all circumstances. To him, “ Rise in the rate of interest is a positive proof that the government is a competitor for capital with the ordinary channels of productive investment and is carrying off not merely funds which would not, but funds which have found productive employment within the country. A borrowing from productive capital causing rise in interest rate is a positive burden. ”<sup>8</sup> Further he explains that the public borrowing is acceptable only when it is provided out of additional savings. Because he thinks that, if it is not so, “ It will adversely affect the living condition and the efficiency of the workers. ”<sup>9</sup> T. R. Malthus goes a bit off classical paths and argues that public borrowing not only augments production in the economy but also avoids glut in the market.

As regards views about the shifting of the burden of the public debt expressed in the economic literature, the traditional argument is that the burden of the public debt is shifted to the future generation, which pays the interest and the principal. If a project is financed through taxes paid by the people, no burden is transferred to the future generation but if funds are raised through borrowing the present generation gets of the cost and the burden is shifted. J. S. Mill claims that the public borrowing imposes double burden. On the one hand, it imposes burden on the current labour because borrowing extracts capital from the private

resources that would have been employed for paying off the wage bill. On the other hand, the burden has been shifted forward to future generation because of the taxes required for servicing of the debt. C. F. Bestable and H. C. Adams refuted the idea that the burden of public debt cannot be shifted on to the future generations. C. F. Bestable has clearly stated that, " By creation of debt rather than taxing, the burden is carried forward in time and that the analogy between private debt and public debt is quite right and that there is no significant difference between internal public debt and external public debt. " <sup>10</sup>

The classical theory is criticized mainly on two grounds. Firstly, every government expenditure is not always unproductive, hence public borrowing may not be always burden upon the economy and secondly, the traditional view regarding the shifting of debt, is not correct. The real burden must be borne in the period in which public expenditure has been incurred through government borrowing program because resources are not withdrawn from private use and put into public projects only in this period. There is no burden of the basic burden to the future generation. Future generation not only inherits liabilities of the payment of interest and principal from the parent generation but also inherits assets in the form of the right of receiving the interest and principal. Thus the interest and principal on the payment side along with interest and principal on the receipt side belong to the same generation; there is no inter-generation transfer but a transfer within the same generation.

## 2.2 MODERN THEORY

The economic philosophy of public debt in modern finance shows a radical departure from the “ Laissez Faire ” notions. This situation changed after Great Depression of 1930s to the great extent. The classical theory of public debt had absolutely collapsed which had taken for granted full employment and unproductiveness of public expenditure. The classical antagonism towards public borrowing was based on these assumptions. However, S. E. Harris observes, “ Once the economist, in a more realistic mood allowed for unemployment, assumed elasticity in monetary supplies and agreed that government expenditure could be productive and need not necessarily be wasteful the case for public borrowing was strengthened. ”<sup>11</sup> Further, A. H. Hansen also declares that, “ Public debt is a essential means of increasing employment and has become an instrument of economic policy today. ”<sup>12</sup> Those who follow Keynes take into account the income-generating aspect of the public debt and reject any possibility of internal debt being burden upon the community. Harold G. Moulton maintains that, “ Public debt is a national asset rather than liability and it is essential for the economic prosperity of the country. ”<sup>13</sup> Economists like Lerner share the opinion that, “Internal debt inflicts no burden simply because it is a transfer of fund from one pocket into the other from the left hand to the right hand. ” He further maintains, “An interpersonal or international loan yields the borrower a real benefit. It enables him to consume or invest more than he is earning or producing. And when he pays interest or repays the loan he must tighten his belt,

reducing his consumption or his investment. In the case of national debt we have neither the benefit nor the burden. The belt cannot be let out when borrowing and need not be tightened when repaying.”<sup>14</sup> Their argument is purely macro and based on the ‘one big family’ analogy. One man’s asset is another man’s liability and if we take into account economy as a whole, assets will cancel out the liabilities. Harrold M. Groves further explains that, “. . . . For every debtor there is also a creditor, it follows that the existence of an internally held national debt in and of itself will not impoverish a nation as debtors than it will enrich it as creditors.”<sup>15</sup>

The advocates of the ‘no-burden’ thesis have innovated one explanation that internal debt is not a burden if the bonds are held by the taxpayers in the same proportion as they pay taxes. It creates no economic burden because they are merely transfers of money from one pocket to another. However, practically it is difficult to tax only the bond holders and even if it was possible at all, in that case they would give up the government securities. B. U. Ratchford explains, “. . . . The bond holder takes his interest income for granted. He reasons, quite correctly, that he might have put his funds into other securities and therefore, he should no be penalized for having bought government bond. Even though the taxes he pays come back to him in interest he will try just as hard to escape them, he will regard them with as much distaste, and they will influence his economic decisions and actions just as much as through they went to pay interest to someone else.”<sup>16</sup>

While, putting the ' new orthodoxy ' in a nutshell, Prof. Buchanan concluded that, in this postulate, firstly, the creation of public debt does not involve any transfer of the primary real burden of future generations; secondly, the analogy between individual or private debt and public debt is fallacious and finally there is a sharp and important distinction between internal and external public debt. On the basis of these concluded results Buchanan further established his own revolt against the ' no burden hypothesis '.

### 2.3 THE BUCHANAN THESIS

The no burden thesis and the views that the primary real burden cannot be shifted to future generations, Pigou's thesis remained unchallenged till 1958 when it became again lively due to the publication of Buchanan's monograph. In his ' Public Principles of Public Debt ', Prof. Buchanan gave his own definition of the " Future Generation ". He takes a, " Future generation as any set of individuals living in any time period following that in which the debt is created. The actual length of the time periods may be arbitrarily designate and the analysis may be conducted in terms of weeks, months, years, decades or centuries. The length of the period *per se* is not relevant. If we choose an period of one year and if we further call the year in which the borrowing operation takes place, 't<sub>0</sub>', then individuals living in any one of the years, t<sub>1</sub>, t<sub>2</sub>, t<sub>3</sub>, . . . . . t<sub>n</sub>, are defined as living in future generations. An individual living in the year 't<sub>0</sub>' will normally be living in the year but he is a different individual in the two time periods . . . . . I shall not be concerned as to whether a public debt is transferred to



our children or grandchildren as such. I shall be concerned with whether or not the debt can be postponed. ”<sup>17</sup>

With this concept Buchanan has tried to refute that the primary burden of public debt cannot be shifted forward.

The ‘ New Orthodoxy ’ argues that the burden is borne by the generation living at the time of the debt creation because it is the generation, which sacrifices its goods and services and transfers the same from private employment to the hands of the government. However, Buchanan contradicts it on the ground that the contribution to a voluntary loan involves no sacrifice. “ If an individual freely chooses to purchase a government bond, he is, presumably, moving to a preferred position on his utility surface by so doing. He has improved, not worsened, his lot by the transaction. This must be true for each bond purchaser, the only individual who actually gives up a current command over economic resources. Other individuals in the economy are presumably unaffected, leaving aside for the moment the effects of the public spending. Therefore, it is impossible to add up a series of zeroes and / or positive values and arrive at a negative total. The economy, considered as the sum of the individual economic units within it, undergoes no sacrifice or burden when debt is created. ”<sup>18</sup>

Buchanan distinguishes between citizens in their role as tax payers and as bond purchasers. He rejects the notion that the burden of government expenditure is borne by society. In a democratic society, individuals as tax payers bear the cost of government expenditure but they bear it at different times under the two methods of finance. If the

debt is issued, the obligation as tax payers and the burden of expenditure are both shifted to future periods. Buchanan attacks the prevailing argument that future generations bear no burden of any public expenditure finance by debt which is incurred in the current periods because interest receivers and tax payers are members of the same generation. The burden or objective cost of public expenditure is the reduction in tax payers' consumption of private goods and services. The difference in the position of the tax payers under the two methods of finance becomes crucial. As citizens, tax payers individually vote for the government project and the method of finance. They choose taxation if the burden is to be borne at once. They select debt finance if the reduction in consumption is to be postponed. Tax payers implicitly borrows the real resources from bond purchasers in the initial period in exchange for giving them control over real resources in the future. Taxes levied in future periods for debt servicing are not merely transfer payments but correspond to the bearing of the objective cost of the expenditure by tax payers who must reduce their private consumption, when transferring purchasing power to bond holders to compensate the latter group for the project in the initial period. As Buchanan declares, "The tax payer in period 't<sub>0</sub>' does not sacrifice any thing since he had paid no tax for the wasteful project. The burden must rest, therefore, on tax payer in future time periods and no one else. He now must reduce his real income to transfer funds to the bond holder, and he has no productive asset in the form of a public project to offset his genuine sacrifice. Thus, the tax payer in future time periods, that is, the future

generation, bears the full primary burden of the public debt.” In this direction he further explains, “ If the debt is created for productive public expenditure, the benefits to the future tax payers must of course be compared with the burden so that, on balance, we may suffer a net benefit or a net burden. But a normal procedure is to separate the two sides of the account and to oppose a burden against a benefit, and this future tax payer is the only one to whom such burden may be attributed ”. <sup>19</sup>

In his ‘ Fiscal Theory & Political Economy : Selected Essays ’ he defines burden in terms of reduction in individual utility and (utility is a function of current consumption and current net worth ) if he knows the correct amount of tax to pay in future for service and retire the debt, then he bears no burden because it is merely the objective counter part of the earlier reduction in utility. So far shifting the burden to future, there must be an uncertainty concerning future taxes ( public debt illusion ). However, in his latter paper he rejects this concept of burden. He now accepts burden or objective cost of public expenditure to the reduction in tax payers consumption of private goods and services.

Buchanan’s additional thesis is that the analogy between private and public debt is fully valid, because “ Borrowing takes the place of “earning” additional revenue through taxation for governments. Borrowing in either case is a means of securing additional current purchasing power without undergoing supplementary current cost. The costs of expenditures currently undertaken are effectively shifted to

future time periods. In such future periods creditors hold a primary claim against the revenue or income of either the individual or government.”<sup>20</sup>

Buchanan’s third proposition is that the external and internal debt are fundamentally of the same character. He argues that in both cases, the purchase of government securities voluntarily gives up command over current usage of resources in exchange for a return in future period. Answering the objection that the external debt is more burdensome, he states that the total national income must always be larger in the external case. But he overlooks the fact that the sale of securities to foreigners always creates some added problems.

Fallacy in Buchanan’s hypothesis is that, firstly, he does not always define ‘ real burden ’ in a significant clear manner. And secondly, he defines generations in such a manner that the same person can be considered a member of many different generations.

#### **2.4 THE BOWEN-DEVIS-KOPF THESIS**

Being aware of the limitations and the drasty receptions of the thesis of Prof. Buchanan, three economists of Princeton University, William G. Bowen, Richard G. Davis and David H. Kopf came forward with new reasoning to challenge the validity of the Pigou thesis. They are of the view, “ If the real burden of the debt is defined as the total amount of private consumption goods given up by the community at the moment of the time the borrowed funds are spent, the cost of the public project must be borne by the generations alive at the time the borrowing

occurs. ”<sup>21</sup> Pigou maintained that if the project is financed out of consumption no burden will be shifted to the subsequent generations, just on the contrary Bowen, Davis and Kopf observe that even if we suppose that bonds are purchased out of consumption the burden will be shifted to the future generation. Their assumptions are as follows :-

1. A full employment economy with price stability as visualised by Buchanan.
2. First generation all of whom are 21 years old at the time of the government's loan expenditure say in the year Y.
3. After 44 years when all the members of the generation 1<sup>st</sup> are 65 years old and the rest of the community is made up of G<sub>2</sub> whose members are all 21 years old.
4. A G<sub>3</sub> following the same age sequence and subsequent generations as required.
5. At the time of financing G<sub>1</sub> purchases the bonds out of consumption and,
6. At the time of retirement G<sub>1</sub> sells the bonds to G<sub>2</sub> who subscribes out of consumption expenditure and G<sub>1</sub> utilizes the sale proceeds for meeting the consumption expenditure.

Their story starts with G<sub>1</sub> on the screen in the year say Y<sub>0</sub> purchasing X amount of government bonds, purchasing entirely through reduction in the consumption expenditure. Thus the consumption of G<sub>1</sub> is reduced in the year Y<sub>0</sub> by X. But after 44 year i.e. in Y<sub>44</sub>, G<sub>1</sub> sells the entire bonds to G<sub>2</sub> and uses the entire proceeds on consumption. Thus the consumption of G<sub>1</sub> is not reduced. During their lifetime the

members of  $G_1$  will spend the sale proceeds, the consumption of  $G_2$  will be reduced. It will be deferred up to another 44 years when  $G_2$  will receive the  $X$  from  $G_3$  and spend it on their consumption; the consumption of  $G_3$  will be reduced. The story will come to an end when the bonds will be paid back. For this purpose additional taxes will be levied. The generation living at that time will bear the burden of the tax, no doubt it will be a recipient too. But the amount  $X$  that it has paid to the preceding generation through its reduction in the consumption will be a net loss and a burden shifted on account of borrowing. Had there been tax financing it would have not been the case.

The analysis may be expressed as follows :

YEAR	GENERATION	CONSUMPTION
$Y_0$	$G_1$	$-X$
$Y_{44}$	$G_1$ ] $G_2$ ]	$+X$ $-X$
$Y_{88}$	$G_2$ ] $G_3$ ]	$+X$ $-X$

It is clear that in the year  $Y$  when the  $G_1$  has purchased the bonds of the value of  $X$ , the consumption is reduced, but the consumption of every subsequent generation is deferred by 44 years and it will continue till it is paid off.  $G_1$  simply makes a temporary reduction in its consumption in the year  $Y_0$ , actual and permanent reduction is made by the generation surviving at the time of the final payment. Thus to them  $G_1$  has shifted the burden to that generation.

Regarding the interest payments on the bonds Bowen, Davis and Kopf argue that, "Interest payments on the debt represent some burden on each and every generation that must pay taxes to such payments." <sup>22</sup> As interest is a kind of payment to compensate the preference of present consumption to future consumption they are of the view that, "So long as people have a positive rate of time preference they will feel that they have made a sacrifice, if they give up a certain amount of consumption in their youth and then receive back exactly the same amount of consumption in their old age. But if we assume that the interest rate on the government bonds approximates the interest payments on the national debt, then the interest payments on the national debt serves to compensate the owners of the debt for their willingness to forego consumption early in life." <sup>23</sup>

On the basis of above analysis they conclude that, "As the government expenditure is financed entirely out of reduction in consumption, the capital equipment remained what it would have been if the government expenditure had not been incurred, yet  $G_1$  has shifted part of the burden to  $G_2, G_3, \dots, G_n$ , partly because, "The deferment of consumption by the  $G_1$  from  $Y_0$  to  $Y_{44}$  is sacrifice that  $G_1$  never recoups." <sup>24</sup>

The entire skeleton of their analysis is based on the fact that  $G_1$  does not impair the capital stock of the economy;  $G_2$  inherits the same stock of capital from  $G_1$ , had there been no government expenditure and no public borrowing. But this argument is not correct if we examine it more deeply. They have maintained that, " $G_1$  has contributed for the

purchase of bonds through their reduction of consumption of X in  $Y_0$  year and  $Y_{44}$  year they would recover the loss in consumption by spending the sale proceeds. Thus according to them  $G_1$  has not damaged the capital stock of the economy. But this is not so. It is evident from the fact that  $G_2$  compulsorily contributes for the purchase of bonds through restricting his own consumption in the very year. ”<sup>25</sup> But one thing is certain. Had  $G_1$  utilised the X amount of bond in the very year  $Y_0$ , had it purchased the bonds out of saving, the capital stock inherited to  $G_2$  would have been much smaller because X amount would not have been used in between  $Y_0$  and  $Y_{44}$  for capital formation.

A bit further, to argue their case they assume that there is no overlapping in two generations and  $G_1$  sell its bonds to  $G_2$  and so on. Thus they have coined two impractical and unreasonable assumptions, if  $G_2$  did not buy the bonds from  $G_1$  but it is inherited from them, the diminution in the consumption in the year  $Y_0$  would be borne by  $G_1$  and not by the subsequent generations. Not only this, in their case, it is also necessary that the government repays the debt out of a budget surplus during the life span of the generation surviving at the time of redemption. “ This can easily be avoided if maturing bonds are always replaced by new borrowing. ”<sup>26</sup> Bowen, Davis and Kopf ’s burden argument will hold well only when taxation is adopted as the measure of redemption. Further, in their analysis Bowen, Davis and Kopf do not take into account the productive and unproductive character of the project; if the project financed by borrowing is productive, even if we accept that  $G_2$  has suffered a loss in consumption (as established by



Bowen, Davis and Kopf ), we may confidently conclude that the output generated by the project would make good the loss in consumption.

## 2.5 THE MUSGRAVE INTER-GENERATION THESIS

R. A. Musgrave explains the same problem that has been examined by Bowen, Davis and Kopf, but his assumption regarding the reactions of the tax payers and the lenders are fundamentally different. Musgrave feels that the burden of debt financed expenditure shifts via reduction in private investment. He proves this by an example of municipal finance in which the burden is shifted to future generations reducing its consumption and investment without any reduction in investment in the initial period. In this case, Musgrave states the use of pay-as-you-use finance for durable public facilities yielding services over a period of time. This pay-as-you-use doctrine of Musgrave declares that public debt issued for such purposes are being exhausted. Musgrave considers a public project yielding services over three periods and assumes that loans advanced by any one generation must be repaid within its life span. As the 1<sup>st</sup> period starts  $G_1$  in the last period of the span is on the scene,  $G_2$  with one more period to go and  $G_3$  in its beginning. For its explanation the period-wise chart is given below :

I	$G^3_1$	$G^2_2$	$G^1_3$
II	$G^3_2$	$G^2_3$	$G^1_4$
III	$G^3_3$	$G^2_4$	$G^1_5$

*NB* : Number on the top of every G expresses the stage through which particular G is passing.

From the given chart it is clear that if only due shares of the cost of the project are to be taken from each generation, the share will be in

proportion to the period or periods for which the service of the facility is enjoyed by each generation. So the break - up of due share of each generation will be as given below :

G <sub>1</sub>	$\frac{1}{9}$ <sup>th</sup> of the cost
G <sub>2</sub>	$\frac{2}{9}$ <sup>th</sup> of the cost
G <sub>3</sub>	$\frac{3}{9}$ <sup>th</sup> of the cost
G <sub>4</sub>	$\frac{2}{9}$ <sup>th</sup> of the cost
G <sub>5</sub>	$\frac{1}{9}$ <sup>th</sup> of the cost

But the problem is how to get the above shown shares from each generation. Prof. Musgrave is of the view that G<sub>1</sub> should pay  $\frac{1}{9}$ <sup>th</sup> of the cost in taxation and so on. He is of the view that, “ In the year of construction of the facility  $\frac{6}{9}$ <sup>th</sup> of the cost must be covered by public borrowing but no part of this loan can be taken from G<sub>1</sub> because it is in its 1<sup>st</sup> period and taken from G<sub>1</sub> cannot be repaid. Thus Musgrave’s reasoning is based upon the fact that loans advanced by any one generation must be repaid within its life span. ”<sup>27</sup> This  $\frac{6}{9}$ <sup>th</sup> of the cost covered by loan will be taken from G<sub>2</sub> and G<sub>3</sub> and this loan will be paid back to them before they retire by dying. Thus, in Musgrave’s analysis everybody will get his contribution back except the amount of tax equivalent to his share as calculated earlier.

In the analysis of Prof. Musgrave it is clear that, had there been taxation and the total cost of the project had been taken from G<sub>1</sub>, G<sub>2</sub>, G<sub>3</sub>, in 1<sup>st</sup> period no cost would have been transferred to subsequent

generation. It is only on account of loan financing that burden has been transferred to other generations.

Prof. Musgrave, too, has failed to invalidate the arguments sponsored in the Pigou thesis, "The implicit assumption of no inheritance is the key to this analysis"<sup>28</sup> If the money borrowed has been utilized for augmenting the productive capacity, the problem of taxation would have not arisen and so no shifting.

Till now we have carefully analysed various theories dealing with the problem of the shifting forward through public borrowing except in the limited case when the bonds have been purchased out of saving and so the capital inherited to the subsequent generation has been impaired. But various economists argue that public borrowing generates some economic and social burden to be borne by the future generation on account of payment of larger taxes, without bringing any shrinkage in the wealth of the present generation. But on the contrary, as the capacity of the society to absorb the burden of increased taxation without much adverse incentive effects is enlarged on account of increased output that can be secured in future due to borrowing and financing capital equipment ( specially in underdeveloped countries ), the net burden over time will be reduced. If at all there is any burden that can be shifted to the future generation it is the subjective burden and not the real burden. The subjective burden will depend upon the distribution of the interest payments within the various groups of the society; effect of the taxation upon the income distribution in the economy; and the volume of payments in relation to the increase in real income of the

economy. Prof. S. E. Harris maintains that, "How great a burden the debt will be, depends upon the rate of interest, the tax system, the weight of the other expenditures of government and above all upon the level of national income." <sup>29</sup> Lesser will be the subjective burden borne by the community, with a given progressive tax structure, smaller the amount of the interest charges and more equal distribution of the ownership of public debt is.

Though it is so, in the actual world the burden of the public debt may be measured only in terms of interest payments and repayment of principal amount of loans. A. H. Hansen conceived that, "The burden of the debt, therefore, consists of the necessity of collecting a large amount of money from some persons and repaying it to others and of the possible adverse economic effects of the resulting redistribution of income upon the amount of the national products." <sup>30</sup> However, Domar has shown that, "Burden as reflected in the tax rate depends not on the relative growth of public debt and national income. If the national income remains constant but the volume of public debt increases, the burden of the debt would increase : but if the rise in national income is accompanied by a simultaneous constant relative increase in the national income, the burden of the debt will fall because with a rise in national income there will be an automatic increase in the tax collection. Thus in the opinion of Domar the national debt may increase but the tax burden may fall. He has further argued that if the national income increases by a constant relative rate, the ratio will after

sometime become constant and will not vary at all whatever be the volume of the debt. ”<sup>31</sup>

## **2.6 EXTERNAL DEBT OF DEVELOPING COUNTRIES : ANALYSIS OF CONCEPTUAL ISSUES**

Developing Countries in the 1970s and 80s had experienced rapid increase in their external debt and management of external debt became a major economic crisis. The rise in external debt and the problems associated with it required an improvement in balance of payment's position, use of domestic macro economic policies, fiscal monetary and exchange rate policy to manage this problem. In the management of external debt crisis the most important issue is the internal use of funds borrowed abroad, which is critical for repayments. The yield of externally financed projects normally has to exceed the interest rates attached to foreign loans and therefore non-productive use of external debt is always likely to cause repayment problems in future. In the management of external debt the composition profile of external debt is also important as the experience of Mexico and Brazil has adequately shown that increase in short term outstanding and commercial borrowing cause repayment crisis.

In the analysis of external debt management various concepts and theoretical issues are discussed in public debt literature of which the following issues are important.

### **2.6.1 Debt Sustainability Analysis**

In recent years Underwood (1990)<sup>32</sup>, in his study, “ Sustainability of International Debt” unpublished study,

World Bank, Washington D.C. and Cohen (1995)<sup>33</sup>, “Sustainability of African Debt” have undertaken the debt sustainability analysis. Their analysis regarding debt sustainability mainly studies whether current debt burden is sustainable and will the country meet its current and future accumulation of debt servicing liability. They have developed the concept of “National Solvency” wherein growth of external debt servicing burden and debt servicing export-import ratios are analysed. For external debt to be sustainable two conditions are found to be necessary.

a. During the projection period balance of payment equilibrium has to be achieved without resorting to exceptional financing.

b. The level of indebtedness at the end of the projection period must be low enough, to make future debt service problems unlikely. This is evaluated by computing indebtedness indicators, such as, Debt-GDP Ratio and Debt-Export Ratio. The rule of “Thumb Warning Sign” is that for external debt to be sustainable the Debt Service-Export Ratio must be of the order of 200-250 percent. If the ratio goes beyond this limit, external debt growth should be considered to be non-sustainable and policy measures have to be undertaken to reduce this ratio.

In the era of globalisation and New Economic Policy, the growth of external debt and the credit ratings of developing countries made by international rating agencies are highly correlated. To attract foreign capital inflows, more in the form of portfolio investment it is

necessary that external debt growth is made sustainable and therefore in fiscal reforms adopted external debt sustainability assumes importance.

In this context, the balance of payment position of developing countries becomes very crucial and this depends upon international commodity prices on which an export earnings depends. Here fluctuations in international commodity prices and the trend of primary commodity prices to remain low always effect the export earnings of developing countries.

“ In case of India, in recent years the market determined exchange rate regime period, coupled with reforms in external sector and other sectors have made India’s external sector position a bit comfortable. The Current Account Deficit – GDP Ratio has remained modest during the 1990s and has averaged around one percent ( in contrast to 2 percent in 1980s ), Current Account had a small surplus in 2001-02 also. Current Account earnings have increased from 8.5 percent of GDP in 1990 – 91 to about 16.6 percent of GDP in 2001-02. Indicators of External Sector Sustainability – Debt Service Ratio and External Debt – GDP Ratio too have declined and Forex reserves today can finance upto a years of imports. Thus in case of India, in the present situation, external debt liabilities are sustainable. ”<sup>34</sup>

#### 2 . 6 . 2 Debt Overhang Theory : -

High debt overhang according to Ravi Kanbur ( )<sup>35</sup> Cornell University, U. S. A., refers to a situation

where existence of large debt has adverse consequences for investment and growth because investors expect that current and future taxes will be higher to effect the transfer of resources abroad to meet external debt servicing burden. This theory argues that, if the external debt of the country exceeds the country's repayment ability then the returns from investing in the domestic economy are effectively taken away by existing foreign creditors. Such a situation will affect the investment by domestic and new foreign investors will be discouraged from investment. This is the external debt - investment relationship.

This theory for effective external debt management makes a case for explicit debt reduction as opposed to rescheduling of external debt.

The "Crowding Out Theory" also on similar lines makes an argument to reduce public debt in general or total and more so internal debt. Under New Economic Policy, private sector development, modernisation and expansion mainly depends on capital markets for raising of much needed capital. In such a situation if the government borrows more from the capital markets, correspondingly the private sector is deprived the much needed capital fund, which the private sector also use more productively. Moreover, high growth in external debt also has adverse impact on the credit ratings of developing countries and this situation has adverse impact on the flow of foreign investment into developing countries. The Crowding Out

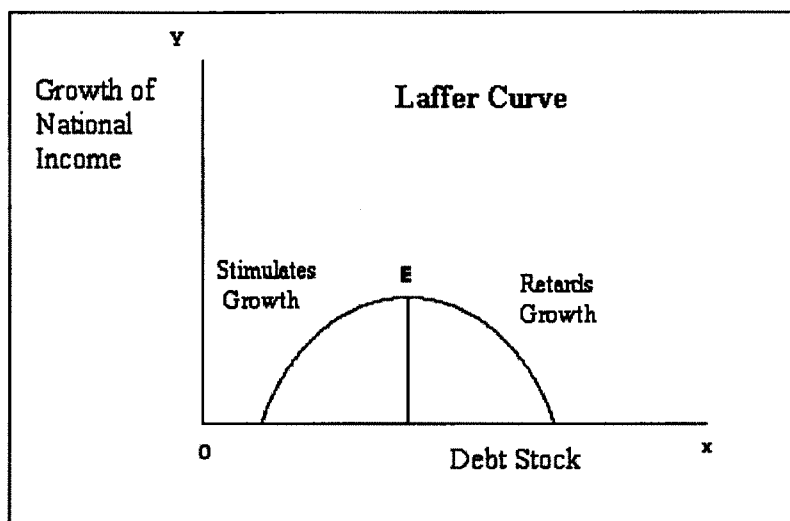


Effect Theory makes a strong argument for reduction in growth of public debt both – internal as well as external debt.

### 2 . 6. 3. Optimal Debt Stock Analysis : -

In the analysis of public debt management in recent years public debt growth and national income growth relationship is also studied, with the help of a “ Laffer Curve ”<sup>36</sup> type explanation of the optimum level of public debt stock, in the economy. This can be explained with help of a diagram as shown below.

#### Optimal debt Stock



The theory is based on the assumption that, if debt will exceed the country's repayment ability with some probability in the future, expected debt service is likely to be an increasing function of the country's output level. Thus some of the returns from investing function in the domestic economy are effectively “ taxed away ” by existing foreign creditors, and investment by domestic and new foreign investors is discouraged. According to the theory, a reduction in the face value of future debt obligations will reduce the distortion

due to the implicit tax, and this will increase investment. Since debt reduction leads to increased investment and repayment capacity, the portion of the debt that remains outstanding becomes more likely to be repaid. If this effect is strong enough, then debt reduction may benefit the creditor as well as the debtor, and the debtor is said to be on the wrong side of the Debt Laffer Curve. The Debt Laffer Curve graphs expected repayment as a function of the face value of debt service. Along the right side of the curve, an increase in the face value of debt service leads to an increase in repayment, while along the wrong side of the curve increases in the face value of the debt reduce expected repayment. If the debtor is on right side of the Laffer Curve, debt reduction may still be a positive sum game, but creditors need to receive some compensation, perhaps in the form of enhancements that increase the value of the remaining debt.

How much should be the optimum level of debt stock of the country is shown in the above diagram. On the x-axis total debt stock of the country is exhibited and on the Y-axis growth in national income is shown. 'E' is the equilibrium point. Till this point the debt raised by the government of the respective country is sustained by the economy and stimulates the growth and development of the economy. The total debt taken by the government till the 'E' point encourages the country to walk further towards the path of the progress. This can be seen in the diagram. The curve is showing that, as debt stock is increasing the national income is also growing faster till the equilibrium point. But further it may be harmful for the economy as

shown in the diagram. After catching the equilibrium point further if the debt stock will still continue to grow, then the national income starts to slow down and declines with increasing debt of the country. This enhancing debt stock may impair the development of the country. The further increasing debt stock may give some injurious and damaging shocks to the economy, which may retard the growth. Thus the appropriate debt stock for the development of the economy is upto the equilibrium point only and country should be very careful after reaching on this point, whether to go at a greater distance or stop hereafter. Debt sustainability broadly refers to a country's ability to service all borrowings – external and domestic; public and private; short-term and long-term debt – without affecting its economic development and growth objectives. Countries with higher growth in output can possibly afford to service a bigger stock of debt. The debt to output ratio has been used as a measure of sustainability. According to the debt hypothesis cycle, foreign borrowing will normally be at a level that will fill the gap between domestic savings and investment required to sustain the desired rate of economic growth. Initially, the debt to output ratio rises, as debt grows faster than output. The ratio reaches a peak and then starts declining, when output starts growing faster than debt. If the debt to output ratio continues to grow over time, measures should be taken to restrain such growth, by running surpluses on the non-interest current account ( hence leading to a net resource transfer to creditors ) or by targeting

and achieving higher growth in output in an attempt to make output grow faster than debt.

→ END NOTES :-

1. Adam Smith, *An Enquiry into the Nature, Causes of the Wealth of Nations*, p. 441.
2. *Ibid.*, p. 410.
3. Ricardo, *Principles of Political Economy* ( Ed.), p. 228.
4. Ricardo, *Notes on Thomas Malthus Principles of Political Economy*, Chapter VIII.
5. Harris S.E., *The National Debt and the New Economics* ( 1947 ), p. 54.
6. J. B. Say, *A Treatise on Political Economy* (Translated by C. E. Princsep), p. 442.
7. *Quarterly Journal of Economics* ( May, 1954), cited in *Readings in Fiscal Policy*, p. 6-7.
8. J. S. Mill, *Principles of Political Economy*, Vol. II, p. 480.
9. *Ibid.*, Vol. I, p. 111.
10. C. F. Bastable, *Public Finance* ( 1895 ), p. 107.
11. Harris S. E., *op. cit.*, p. 45.
12. H. A. Hansen, *Fiscal Policy and Business Cycle* ( 1941 ), p.152-161.
13. Harold G. Moulton, *The New Philosophy of Public Debt* ( 1943 ), p. 15.
14. A. P. Lerner, *Economics of Employment* (1955 ), p. 274.
15. Harrold M.Groves, *Financing Government* (1958), p.580.

16. The Burden of a Domestic Debt, *American Economic Review* ( September, 1942 ), cited in *Readings In Fiscal Policy*, op. cit. 456.
17. Buchanan, *Public Principles of Public Debt*, Preface Viii.
18. *Ibid.*, p. 33-34.
19. *Ibid.*, p. 40
20. Chapell – Hill *Public Debt, Cost Theory and the Fiscal Illusion* ( 1964 ), *Public Debt and Future Generations*, ( Ed.) J. M. Ferguson.
21. Boven, Davis, Kopf, *The Public Debt; a Burden on Future Generation*, *American Economic Review* ( September, 1960 ).
22. *Ibid.*, p. 86
23. *Ibid.*
24. ‘ the otherwise recognised fact that even if loan finance fails to dampen private investment the present generation can still shift at least a part of the burden of government spending to future generation ’ – B.D.K.
25. ‘ G makes good this impairment right away by restricting its own consumption in the very year that  $G_1$  is enjoying its increment of consumption ’ – Carl S. Shoup, *Debt Financing And Future Generation*, *Economic Journal*, Vol. LXXII, ( Dec., 1962 ).
26. E. J. Mishan., *Is the National Debt a Burden ?* ( 1963 ).
27. *Review of Economic Statistics*, ( Feb., 1962 ), p. 563.

28. Shoup, op. cit.
29. Harris, op. cit., p. 276
30. cf. A. H. Hansen, *Economic Policy And Full Employment*, p. 267.
31. E. Domar, *The Burden of the Debt and National Income Readings in Fiscal Policy*, p. 482.
32. Underwood, *Sustainability of International Debt* ( 1990 ).
33. Cohen, *Sustainability of African Debt* ( 1995 ).
34. R. K. Pattnaik, M- Kapur, S. C. Dhal, *Exchange Rate Policy And Management, Economic And Political Weekly*, Vol. XXXVIII No. 22, ( May – June, 2003 ), p. 2139-53.
35. Ravi Kanbur, *Analytical Aspects of the Debt Problems of Heavily Indebted Poor Countries*.
36. S. Claessens, *The Debt Laffer Curve ; Some Estimates, World Development* , Vol. 18 ( Dec., 1990 )