CHAPTER III
THEORIES OF PUBLIC DEBT

Public borrowing comes very handy to the Government which is in search of revenue to meet its increasing expenditures. Emergence and its wide-spread popularity full rationalization for the easy adoption of this remedy. Consequently, a new orthodoxy has emerged which asks the policymakers not to worry about the size and burden of public debt and deficit financing. The results are obvious to see. Many under-developed countries incurring huge public debt and resorting to massive doses of deficit financing to meet heavy government expenditures resulting from the adoption of large sized plans are under the sad grips of double digit inflation and debt-trap which have been creating political instability and social turmoil in these countries. Carefree attitude of the policymakers regarding the size and burden of public debt emanates from the three foundation stories of the new orthodoxy which are as follows:

(1) Public debt does not imply any transfer of the primary real burden to future generations and it is borne by the government bond holders of the present generation.

(2) Private debt and public debt are basically dissimilar in all essential respects.

(3) There is a basic difference between internal public debt and external public debt.
It is argued that when the government spends money acquired through taxation or public borrowing, people in their capacity of being taxpayers or lenders lose the resources and they are transferred to the government. So the burden of government investment or consumption expenditure is on the taxpayers and the lenders. Now as the government expenditure is taking place in the present, the lenders are surrendering the resources to government in the present as the tax-payers are doing and so the burden is on the present generation of tax-payers and lenders. Thus the argument is that there is no difference regarding burden between these two sources of government revenue namely taxation and borrowing and the burden of public debt is not on the future generation but on the present generation as it is true in case of taxation. Government cannot spend the resources in the present unless they are made available in the present. It is not possible that the government can spend the resources in the present and the resources are made available in future.

This is because, it is not possible to spend money unless it is there right in your hands and whoever has given you this money, he bears the burden of your spending so just as one cannot say that he eats first and food is cooked afterwards, so one cannot say that the burden of public debt is on future generation and not on present generation which provides the resources in the present for the government to spend. Hence it is argued that the burden of public debt is borne by the lenders of the present generation and not by the tax-payers of the future generation who
will be taxed in future to meet the interest payments and also the amortization of public debt incurred in the present.

This argument looks to be very plausible at the first blush, but it is found to fallacious if we delve deeper into the analysis of it. In order to understand this fallacy, one should take into account the situation when borrowing by the government from the people does not take place. In this situation, the lenders would have lent to the private sector instead of to the government. So here, there is no public debt and still there is burden on the lenders in the present if the burden is to be defined in the sense of parting with money, as they have lent to the private sector. If it is a burden for the lenders in the present they should go down on their utility curves, as the tax-payers would go down. But actually the lenders go up on their utility surface and shift to the higher utility curve irrespective of their holding of private bonds or government bonds. This is because lending is a matter of voluntary exchange with the lenders and borrowers and unless both the parties of the exchange namely borrowers and lenders are benefitted, exchange will not take place. So in the loan transactions, lenders must have gone up to the higher utility curves by giving loans, irrespective of whether the loans given are to the private sector or to the public sector. If it is a burden, they will not move to higher utility curves, so loan-giving to the government is not a burden on the lenders who are in the present generation. Then the question arises the burden of public debt is on whom? The reply is that it is on the tax-payers of the future generation who will
be taxed to meet the servicing cost of public debt i.e. interest and amortization cost of the loans.

In order to understand this argument, let us conceive a situation in which revenue acquired through public borrowing is not utilized for productive projects and it is wasted in unproductive channels. But this will not make any difference to the government bond holders as they will continue to get interest-income and they will be able to get their principal amounts back whenever they wish to do so. But the tax-payers of the future generation who will be taxed to service this public debt, will be complete losers, as they will not get the benefit of the productivity of the public projects, as the borrowed money was wasted by the government. If borrowed money is productively used by the government, the benefits of these productive public projects will accrue to the tax-payers of the future generation and if the benefits are of greater value than the burden of taxation, the tax-payers of the future generation will be at a net advantage. But whether borrowed money is used productively or unproductively by the government, the future tax-payers will bear the burden of taxation meant to meet the servicing of public debt while the lenders will continue to get interest-income and they can get their principal amounts back whenever they like irrespectively of whether borrowed money is productivity used or just wasted by the government. If the lenders get interest along with their lent money back, how can they be considered to be bearing the burden of public debt? Also when the taxpayers of the future generation have surely to bear taxes irrespective of
whether they get benefit or not from the spending of the government, how can it be said that they are not bearing the burden of public debt?

Prof. James Buchanan gives a very interesting example to drive home this argument when a teacher teaches to the students of a college (or a school), the teacher does not bear the cost of education for the student, as this cost is borne by the parents of the students or some voluntary charitable institutions or by the college or by the government who pay their fees. The teacher actually gets the salary and so the question of his bearing of cost of education of the students does not arise. In the same way, the lender is rewarded with interest-income besides his original amount returned (like the teacher being given the salary for his labour) and so he cannot be considered to be bearing the burden of public debt. Just as the burden of education of the students is borne by the parents of the students, government, or the college etc., in the same way, the real burden of public debt is borne by the tax-payers of the future generation who would be taxed to meet the interest and amortization payments of public debt. Loan is undertaken voluntarily with a view to get greater benefit by free exchange while taxation is compulsory and one-sided and the tax-payer loses the amount of money taxed without any necessary corresponding benefit. If the government uses borrowed money wastefully, the burden of the loss of borrowed money is borne only by the tax-payers and if the borrowed money is used productivity by the government the benefits are reaped by all the people tax-payers as well as the bond-holders and all other
people. So it becomes clear that the primary real burden of public debt is on the shoulders of the tax-payers of the future generation and not on the lenders of the present generation.

Debt is debt—whether it is private or public but this similarity was denied by the upholders of this new orthodoxy. Their error was based on two basic misconceptions. One was their belief in the pain theory of value which tried to show the determination of the price (or the value) of a commodity or of a factor of production by the amount or the degree of pain involved in the production of a commodity or in the services rendered by the owner of the respective factor of production. The other misconception was pertaining the microfoundation of macroentities or in other words not explaining the balance sheet of the society as a whole in terms of individual balance sheets of the lenders and the tax-payers of the society. Society is not a sentient being an organic entity over and above the individuals of the society and the behaviour of the society has to be explained through the behaviour of the individuals constituting that society.

Pain may be due to exertion of labour and the wage may accrue to the labourer or it may be pain due to sacrifice of or abstinence from consumption by the savers and hence interest may be given to the savers and the profit of the intrepreneur may be the surplus like that of rent on land for landowners or profit may be deemed as the reward of bearing the tension and the effort exerted in risk-taking or uncertainty bearing on the part of the
entrepreneurs. This was the initial approach of the classical economists in their efforts for explanation of the process of the factors of production. This was because their economic approach was mixed up with their sociological approach. But soon their pure economic approach emerged in the form of the neo-classical ascendency. It was shown by Wickstead, Ohlin, Haberler and other economists that the price of the factor of production is determined by the opportunity cost of it in the next best alternative available. This principle of opportunity cost applies to the determination of the price of a commodity also. So it is not true to say that, because, a factor of production undergoes pain and hence it is given wage or interest (as the case may be) as a result of it, but actually he contributes labour or saving, because he is offered a price in the form of the wage rate or interest rate. Offer of reward according to the opportunity cost of it is first there and the owner of the factor of production contributes its service in order to get that reward or price. Thus the wage or the interest is the part of the exchange or the price mechanism i.e. market mechanism. Exchange being voluntary, no exchange will take place unless both the parties of the exchange benefit. So when the loans are given by the lenders to the government or the private sector, they do so voluntarily with the aim of earning interest income on lent money which is also to be amortized. But when persons are taxed by the government, it is due to compulsion that the people pay taxes and there is no quid pro quo, as it is in the case of a loan. In the case of a loan, loaned money is returned along with interest to the lender by the government. But in the case of taxation, tax revenue may be
unproductively employed by the government and the tax-payers as members with other members of the society may not get any social returns or tax-revenue may be productively utilized by the government and then the tax-payers may get the benefit of enhanced productivity or of social returns along with other members of the society who have not been asked to pay taxes. Taxation is the result of government fiat and not voluntary exchange. Taxation is exogenous to the market and not indogenous the market as interest wage, rent and profit are.

So when the lenders part with money for the government, they do not undergo any burden or sacrifice as it is their commercial transaction for market-gain. But when the future generation is taxed to repay the loan with interest, real burden is on the taxpayers of the future generation, as there is no direct and necessary reward involved in it and it is not the result of voluntary exchange and the part of the market mechanism. So voluntary lending by the savers in the present should not be juxtaposed against the tax-payers of the future generation and they should be viewed as distinct and separate operations from each other. Taxation should be actually juxtaposed against the productivity of the project financed.

The other misconception is based on the fallacy of composition which takes into account the balance sheet of the society without realizing the necessity of explaining it through the balance sheets of the individual lenders and individual tax payers.
It is argued that in the present, there is one sided transfer of resources from the lenders to the government. Burden is on the lenders in the present and in future, when people are taxed to repay the loans with interest tax-payers and the bond-holders who are receivers of interest income (and also amortization amounts) both will be the members of the same society and hence what is burden for the group of tax-payers is a gain for the bond-holders and these both cancel each other and both will be belonging to the future generation. Hence there is no burden for the society as a whole in future. So it was argued that burden of public debt is in the present and it is borne by the bond-holders of the present and not by the tax-payers of the future. It can be clearly seen here that the apparent plausibility of the argument emanates from viewing the burden of public debt as the burden of society as a whole. If we take into account the balance sheets of the individual lenders and the tax-payers, we find that the denial of similarity between private debt and public debt is based on error. Prof. James Buchanan in his famous book "Public principles of public Debt" has exposed this error in such a clear fashion that it is worth quoting him in the full. He writes:

"When the bond purchaser buys the government bond, he draws down some other asset, let us say cash or private bonds, and replaces this with the government securities. No change in his net worth takes place. By assumption, the tax payer neither includes the capital value of the public asset nor the discounted value of future tax payments in his balance sheet. Therefore, in the aggregate, individual balance sheets are no affected by the
public debt creation. We must conclude, therefore, that, for the period when the public debt is initially created, there is no difference between the internal public debt and private debt.

"How can the payment of interest on a public debt, in itself, represent a reduction in aggregate individual net wealth, since domestic bond-holders receive the interest paid as taxes by domestic taxpayers yet clearly the payment of interest or a private debt represents a drainage from the real income stream of the individual, a reduction in his net worth.

"This comparison must be examined more carefully. How are individual balance sheets affected by the payment of interest on a public debt? The payment of taxes, say out of cash, will reduce the asset side of the taxpayer's account. This will be offset by a reduction in net worth on the right side. The receipt of interest will increase the cash position of the bond holder and, on the right side of his account, net worth will be increased. This increase in net worth of the bondholder just offsets the decrease in net worth of the taxpayer. No change in individual net worth, considered in the aggregate, takes place. The analogy with private debt appears to be false.

"There is, however, a subtle fallacy hidden in the above reasoning, and it is based on the methodological error. The analysis reflects a failure to compare relevant alternatives. This may be most easily shown by examining the implications of the conclusions reached above. According to this analysis, no
change in aggregate wealth occurs either when the debt is created or when the interest is paid. From this, it should follow that if the public project yields any positive real income at all the society achieves a net gain in real wealth as a result of the combined debt issue-public expenditure operation. Any rate of return on the public investment greater than zero would be sufficient to justify public investment. A public policy of ever-expanding public borrowing would seem to be indicated.

"There is something obviously wrong here which must be searched out and corrected. In order to utilize resources in public employment, some rate of return in private employment must be sacrificed. Therefore, if the project is completely wasteful, the sacrifice in private wealth is not offset by any gain in "social wealth." But why does this fail to show up when we consider the individual balance sheet adjustments as we have done above?

"The answer here in the assumption that the worth of the bondholder is uniquely increased by the receipt of interest on the government security. This reflects an oversight of the fact that the capital investment has alternative employments in the private economy, and that some increase in net worth would accrue to individuals who are not creditors in the absence of the public borrowing operation. Differentially speaking, it is not proper to offset the increase in net worth of bondholders which is occasioned by the interest receipts against the decrease in net worth of the taxpayers occasioned by the interest payments. The
increase in net worth of the bondholders would have occurred without the public debt; only the decrease in net worth of the taxpayers may be attributed to the fiscal operation under consideration. This modification now allows sensible conclusions to be drawn regarding the merits of the debt public expenditure operation. The differential decrease in net worth imposed upon future taxpayers by the servicing of the debt may be offset against the rate of return on the public project which is debt financed. Quite clearly the project which yields a zero rate of return is not justifiable". (Pages, 52,53,54).

Actually, just as in the case of private debt, interest rate on borrowed money is compared with the rate of return on productive investment made possible with the help of this borrowed money, in the same way, in case of public debt, interest payments (to bondholders) on public debt (to be paid by the future taxpayers) should be offset against returns on public projects made possible by public debt. But the new orthodoxy offsets interest received by government bondholders against taxpayments by the future taxpayers and not against the returns on public projects to be brought into existence with the help of public debt. If this error of offsetting interest payments to government bondholders against the tax revenue to be gathered from the future taxpayers is committed, then the whole transaction becomes independent of the productivity or the non-productivity of the debt financed public project. Even if the productivity is zero, there is no problem and any positive rate of return, however low it may be on the project financed was considered to be a net gain. Thus in
debt-financing, the productivity criterion was almost dropped. But if we rectify this basic error and offset interest-payments by tax-payers against the productivity of the debt-financed public project, then the similarity between public debt and private debt is restored, because in private debt also, interest payments are juxtaposed against the returns on the private debt-financed project. Thus the second maxim of the new orthodoxy that public debt is not on the analogy of private debt and they are basically dissimilar, is found to be erroneous and we find that both are the same in all of their essential respects.

Let us understand it more clearly, as the issue of similarity or non-similarity between internal debt and external debt is also associated with it. In a way, all the three propositions of the new orthodoxy are interlinked and hence the arguments pertaining to controversy about one proposition will be overlapping with those regarding the other propositions. When we make comparison between private debt and public debt, for better understanding, we should take into account three stages of debt-financed public expenditure. One is regarding the position of the lenders and taxpayers when public debt is incurred; second is the stage in the future time-period when interest (and amortization) payments are made to the bond-holders by the tax-payers and in the third stage, the productivity of the debt-finance project is taken into account.
In the initial period when public debt is incurred by the government, lenders draw away their money from private bonds and invest them in government bonds and so the worth of their total assets remains the same and only one type of asset is replaced by another kind of asset. On the liability side, there is no change, as in both the cases of public debt or private debt, lender has to part with the equal amount of cash and surrender it to the private agency or the government agency as the case may be. Thus as far as lenders are concerned, it does not make any difference to his asset side or the liability side when the debt is private or public. When we take into account the balance sheet of the present taxpayers, they generally do not take into account the returns that would accrue to all (including the future taxpayers) on the public projects to be constructed in future with the help of the borrowed money and they also neglect the possible future liability of paying taxes for the servicing of public debt in future. So in the present, in this first stage of incurring public debt, the asset and the liability sides of the taxpayers are not affected at all. Thus, we see that private debt and public debt are found to be similar at least in the first stage.

Now in the second stage, the new orthodoxy found a basic difference between private debt and public debt. The fallacy of not seeing similarity even in the second stage is based on viewing payment of interest on private debt separate from the productivity of debt-financed private investment and in case of
public debt, offsetting interest incomes of the government bond holders against the tax-revenue paid by the taxpayers. It was argued that as the class of the government bondholders and the class of the taxpayers both belong to the same society and hence the gain of one class is offset by the loss of another class of the same society and hence there is no burden on the future generation. Here a macro view was taken and the society was viewed as an organic entity over and above the members constituting the society and so no burden was perceived as the balance sheet of the society was taken into account. But if the balance sheet of the taxpayers (of the future) is taken into consideration the worth of their wealth is reduced one-sidedly without any corresponding gain. This is because it is not offset against the possible productivity of the debt financed public project, but it is offset against interest payments to the government bond-holders. The reason is that accidently or coincidentally, the bondholders and the taxpayers both belong to the same society at the same time and hence they are juxtaposed together. Tax burden should have been offset against the productivity of the debt financed public project, but this could not be done due to the lack of insight which was the direct consequence of having an organic view of society as a sentient being over and above the individuals of the society constituting it.
Interest on private debt was looked as a burden, because the productivity of private debt financed project was not offset against it. In the same way, public interest payment on public debt was not offset against the productivity of debt financed public project, but it was offset against the taxpayment of the tax-payers. But if interest payments on private debt and public debt are offset against the productivities of their respective debt financed private or public projects, fallacies committed by the new orthodoxy would not have been actually committed.

The new orthodoxy had in mind also a different view of burden according to which there was no difference between tax-finance and debt-finance when revenue is collected by the government through taxation, taxpayers lose resources to the government and in the case of revenue collected through incurring of debt by the government, resources are surrendered by the government-debt holders to the government. Thus in both the cases, there is burden. In one case, there is burden on taxpayers and in another case, burden is on the bondholders. So it was concluded by the upholders of the new orthodoxy that there was no difference between taxfinancing and debt financing as far as burden was concerned and burden was deemed as surrendering of resources to the government irrespective of whether it was compulsory through taxation or voluntary through borrowing.

Thus it was wrongly emphasized that the burden of public debt is on the bondholders of the present generation and not on the taxpayers of the future generation.
Now we have already argued that at the time of incurring of public debt, there is no burden on the subscribers of the government bonds, as they draw down private debt and replace it with public debt and they do so with the commercial purpose of earning of interest and so they go to a higher indifference curve on the utility curve due to their lending to the government while the future taxpayers will go down to the lower indifference curve when they will pay taxes to meet interest payments on government bonds. So the burden of public debt is not on the present generation, as the assets and the liabilities of the government bondholders and the taxpayers are not changed in worth, in the present when public debt is incurred.

Thus the real burden of public debt is to be borne by the taxpayers of the future generation who will be compelled by the government to meet the interest payments (and also amortization of debt) on the government bonds. So if we try to delve deeper into the study of the microfoundation of the so-called macro phenomena, we observe that the burden of public debt is on the tax-payers of the future generation.

As the economists belonging to new orthodoxy committed the fallacy of offsetting tax-payments by the tax-payers against interest incomes of the bondholders in the second stage, no burden was perceived by them on the future generation and so the returns in the debt financed public project, however low they may be, were conceived as a net gain. So even a very low productivity of one percent on the debt financed public project was justified by them though the interest rate on public debt may be 5 or 6
percent and which may increase with a higher degree of inflation. So the size of public debt was considered to be a matter of no social concern.

But if this fallacy of composition is not committed and if interest payments on government bonds or tax-payments by taxpayers to meet these interest payments (both are equal and the same thing) are offset against the productivity of the debt financed public projects, then it will be seen clearly that the burden of public debt is on the taxpayers of the future generation and this burden can turn into a net gain for taxpayers and the society if social returns on debt financed public projects are worth more than the burden of taxpayments to meet interest on government bonds. It means that the productivity of debt financed public project should be more than the interest rate on government bonds, as in the case of private debt also the productivity of debt financed private project should be more than the rate of interest in private bonds if incurring of debt is to be justified. Thus we observe that there is no difference between private debt and public debt in their all essential respects.

Thus we come to the conclusion:

(1) The real primary burden of public debt is borne by the taxpayers of the future generation and not by the bondholders of the present generation when the debt is incurred.

(2) Also there is no difference between the basic nature of private debt and public debt in all their essential respects.
Thus we see that the new orthodoxy based on Keynesian macroeconomics and Functional Finance theory is found to be essentially wrong in their first two premises. Now let us discuss their third surmise, namely there is a basic difference between an internal public debt and external public debt.

Their arguments are given below:

When the internal public debt is incurred, the lenders i.e. the holders of the government bonds and the borrowers i.e. the government—both are in the same society and hence resources are transferred from creditors to the debtors belonging to the same economy. Hence for the society as a whole there is no flow outside the society but within the society. Also when in future, interest with amortization is paid to the bond-holders with the help of revenue collected through taxation, the bond-holders who receive interest income and amortization amounts and the taxpayers who pay the taxes—both are again in the same society and so there is no flow out of the society as there was no flow into the society from outside. But in the case of external debt, when the foreign debt is incurred by the government, resources come into the country from the foreign country and when the loan is repaid with interest resources flow out from the country to the foreign country. Thus at both the stages of debt incurring and debt payment with interest, there is inflow of resources from outside and then subsequently, there is outflow of resources from this country to the foreign country and thus the external sector is involved. Thus foreign or external debt is like internal private debt in which the burden of debt is shifted to the
future. According to the new orthodoxy, there is a basic difference between internal public debt and external public debt as there is, according to them a basic difference between internal private debt and internal public debt.

But this is basically a wrong argument, because debt is debt whether it is private debt or public debt and whether it is internal debt or external debt. We have already shown that in the case of internal public debt, its burden is borne by the taxpayers of the future generation and now the new orthodoxy accepts at least that the burden of external public debt is shifted to the taxpayers of the future generation and and thus it is shown that internal public debt and external public debt—both are similar in this respect of their burden being shifted to the future generation of the debt incurring country. in the case of private debt also, the borrower pays interest and the principal amount in future and thus the burden of private debt also is shifted to the future which can be offset against the returns on debt financed investment. Thus in case of debt of any type external public debt or internal public debt or internal private debt, its burden is shifted to the future. Also the burden in case of lending which is the part of voluntary exchange does not lie in the provision of resources by the lender, but the burden arises when loan is repaid with interest in future.

Loan-giving is a voluntary exchange unlike taxation which is compulsory and hence when loan is given, it is with a commercial consideration of getting interest income and with the certain
assurance of the repayment of the principal amount in future. So there is no burden on the lenders, but there is burden on the future taxpayers.

But when interest is paid and there is repayment of public loans in future, there is the burden on the taxpayers of the future generation, but then this burden of paying taxes should be offset against social returns on the public investment projects which benefit all the persons including the taxpayers and then it is possible that the worth of social returns may be more than the interest payments or it may be equal to it or may be even less than it. Thus the net burden of public debt may be negative, Zero or even positive as depending upon the relative productivity of the public investment projects in relation to the corresponding rates of interest on the public bonds which are paid by the taxpayers.

The same applies to private debt and the same principle holds true in case of external public debt. But the new orthodoxy insisted that they all are basically different from one another and thus they created a mess which gave an open licence to the modern governments to be free of the worry about the size of public debt and in increasing the government expenditures by leaps and bounds with the dire consequences which all can see.

In case of external public debt, the country incurring this debt, receives additional resources and hence whatever investment that takes place is additional and hence it enhances national income of this country. In case of internal public debt, the lenders
draw down their resources money saving from private lending and invest in government bonds or securities and hence public investment takes place at the cost of private investment and thus total investment does not increase. Now if public investment is less productive than private investment, national income will be less to the extent of this difference. This question does not arise in case of external loan, as it does not require drawing down resources from the private sector of the country concerned as it brings additional resources from the foreign country. Hence there is no replacement of private capital investment by public capital investment and thus total investment in the economy increases due to external debt which may enhance national output. But against this increase in real national income, there should be offset the draining of resources from this country when there is repayment of loans and payment of interest.

It was argued that the increase in national income made possible on account of investment due to external borrowing may be in the long run equal to the amount of borrowed money to be repaid interest to be paid and net returns on the projects financed while as regards repayment of internal loans with interest, there is a shift of money from taxpayers to bond holders, but as both the classes belong to the same economy, there is no burden on the society as a whole. So it was thought that the external loan of even a very low one per cent rate of interest may not be acceptable in comparison with internal public loan with even 10 per cent rate of interest. This is because in the case of internal public debt, there is no drainage of resources to the
foreign creditor when there is repayment of loans with interest in future however high the interest rate may be. This question did not arise in case of internal public debt, as all is in one and resources move from the private sector to the public sector, and both the sectors belong to the same economy unlike external public debt where these sectors belong to different countries. Thus external loan was discredited by the new orthodoxy in comparison with internal public loan, and it was argued that government expenditure should equal the sum total of tax revenue and internal public debt revenue.

Thus external debt was excluded from the very beginning by the very dictates of the theory of the new orthodoxy.

James Buchanan has represented the case a little differently in his book "Public Principles of Public Debt". In the case of internal public debt to finance public (government) projects, resources come from the private sector and so the private sector is deprived of these resources and hence capital formation in the private sector suffers to that extent which reduces the national income in the private sector. But when external debt is incurred to finance public projects, the private sector in the debt incurring country does not suffer from this diversion of resources to the public projects, as they come from foreign countries in the form of external debt. Now when the problem of repayment of loans to the foreign country is raised in case of external debt, it is argued by Buchanan that the debt incurring country has not suffered income loss in the private sector in incurring public debt for the public sector and so total national
Income in this country will be higher than in the case when internal public debt is incurred. So the principal amount of the external loan may be deemed as repaid from this excess of income made possible due to back of lease of resources from the private sector in making public investment possible. Now Buchanan up to this stage, has not taken into account income generated by the debt financed project in the public sector. In case of internal public debt, repayment of the principal amount along with interest payments is made possible with the help of tax revenue collected from the taxpayers of the country. But the class of the government bond-holders and the class of taxpayers both being within the same country, there is no drainage of resources outside the country. But in case of external debt, there is drainage of resources outside the country. Drainage consists of amortization amounts and interest amounts. But as regards amortization amounts we have already shown that they are paid with the help of excess income available in case of external debt in comparison with that in the case of internal public debt. Now there is the question of interest to be paid in case of internal public debt and alternatively in case of external public debt. Now in case of internal public debt, interest amounts are paid by the taxpayers to the bond holders and so it was argued that a very high rate of interest does not make much difference from the point of view of the whole country and comparison with even a very low rate of interest to be paid to foreigners on external debt to the bond holders belonging to a foreign country there is drainage of resources from our taxpayers to foreign bond holders.
Thus here Buchanan shows that wrong arguments were advanced by the exponents of the new orthodoxy. Thus by a perverse reasoning even one per cent rate of interest on external loan was shown to be less preferable to 10 per cent rate of interest on internal public debt. Thus external loan was to be deferred and internal loan was to be preferred if tax revenues were found to be wanting to ensure sufficient revenue to meet the soaring government expenditures. Buchanan has exposed the fallacy of this proposition and has shown that there is no basic difference between internal public debt and external public debt and hence if the rate of interest on external loan is lower than the rate of interest on internal loan in relation to the productivity of debt financed public project external debt is to be preferred to internal public debt. Now the lender internal or external does not bear any burden, as it is shown by his upward movement in the utility surface due to this voluntary exchange and the burden of internal external public debt is on the internal taxpayers. So, as far as burden of debt is concerned, it is the same in both the cases of internal as well as external public debt and it is on the shoulders of the taxpayers of the debt-incuring country. Now if the rate of interest on external debt is lower, then the taxburden on the local taxpayers will be lower and if the rate of interest on the internal public debt is higher, the tax burden on the taxpayers will be higher as in that case, the taxpayers will have to be taxed more severely in order to pay higher amounts of interest. So the criterion is found to be very simple, which even commonsense also dictates that the
rate of interest on internal loan or external loan is to be compared with the productivity of the debt-financed project and the question of debt being external or internal is irrelevant in this respect.

Higher productivity of the debt financed project will increase national income more and so with the same tax rates or with lesser increase in tax rates or with a smaller coverage of taxpayers, the same amount of tax revenue can be gathered so as to meet the required interest payments on internal or external public debt. So, for internal public debt and external public debt, criterion is the same how far or how much the rate of interest on debt (external or internal) is lower than the productivity of the debt-financed project. If the rate of interest on external loan is lower than the productivity of loan financed product in comparison with the rate of interest on internal loan, the external debt is to be preferred and if the rate of interest on internal public debt is lower than the rate of interest on external debt when both are lower than the productivity of the project, then the internal public debt is to be preferred to external borrowing. This is a correct position and it is more consistent with common sense also spelled by Buchanan while we feel a sense of being cheated when we come across the superficially plausible arguments advanced by the exponents of the new orthodoxy.

Again the problem is very simple when the external loan is incurred. National income increases due to two reasons one is addition of new resources from outside and the other is pure
productivity of the project. In case of internal loan, the public sector gets the resources at the cost of the private sector which is not the case regarding external public debt. So when the principal amount of the external loan is amortized, this external drainage of the principal amount should be offset against the increase in national income made possible due to the availability of additional resources from the external source. In case of internal loan, as there is no question of repayment of the principal amount of the loan to the external sources there is also not available increase in national income to be made possible by the addition of new resources from outside, so they both cancel each other. Hence in this respect when both kinds of loans—internal and external ones are available, amortization problem does not clinch the issue. What clinches the issue is the rate of interest on the loan—internal or external is relation to the productivity of the debt-financed projects. So preference is to be made between internal debt and external debt on the basis of their respective rates of interest in relation to the productivity of the debt-financed project. If the rate of interest on external debt is lower than that on internal public debt in comparison with the productivity of the debt-financed project, then external debt is to be preferred and if it is otherwise, then internal public debt is to be preferred.

Thus here we see that whether it is private debt or internal public debt or external public debt, the criterion is the same that the productivity of the debt-financed project should be more than the rate of interest on debt with the help of which the
respective project has to be financed and constructed. If its productivity is more than the rate of interest, then the respective debt is justified. If course, in case of external debt, due to the difference in legal currency and due to certain institutional and other rigidities, some specific problems may arise but here they have no direct bearing with this basic controversy and they do not change basic conclusions and hence here we have not discussed these other problems pertaining to transfer of resources from one country to another country. Those problems can be solved without touching the validity of the basic issues involved in the controversy and the conclusions arrived. Thus we come to the conclusions that

(1) there is no basic difference between private debt and public debt.

(2) which again have no basic difference with external public debt, and

(3) the burden of internal or external public debt is shifted to the taxpayers of the future generation of the debt-incurring country.

Thus we observe that these three conclusions run basically counter to all the three corresponding propositions of the new orthodoxy based on traditional Keynesian macroeconomics.

Now our desk is clear of the confusions regarding the nature of different kinds of debt and burden involved and so the ground is set to discuss the role of public debt in the economic development of a country. But many times, efforts for rapid
economic development are interspersed by inflation, sometimes recession and sometimes limited war or the war like situation. So in order to understand the role of public debt in the economic development of a country, it is better first to discuss however briefly the role of public debt in the situations of inflation recession or depression and in war or in the situation while defence preparations are made.

Before we proceed further to discuss the role of public debt in these different situations, we should take into account the distinction between government borrowing from the banking system (The central bank and the commercial banks) which implies expansion of money supply and government borrowing from the public which does not result into expansion of money supply, as it is based on the savings (past or present) of the people.

External debt also implies savings of the people of other countries irrespective of whether it is borrowed from the people of that those countries by the foreign governments (made available to our country) or by international agencies. So government debt which results into expansion of money supply is different from government debt based on the savings of the people of the borrowing country or of other countries. When the government borrows from the Central Bank, the supply of high-powered money in the economy increases due to spending by the government of this newly printed money provided by the central bank of the country. When people get this money due to spending of this money by the government, of this newly printed money provided by the
Central Bank of the country. When people get this money due to spending of this money by the government, they deposit some part of this high-powered money in the banks. Thus the cash reserves of the banks increase and banks use some part of these additional cash reserves in giving loans to the government which again increases money supply. This is secondary expansion of money supply on the basis of primary expansion of money supply. Thus we observe that the total borrowing by the government from the Central Bank and the commercial banks leads to expansion of money supply and it is real deficit financing which is inflationary while government borrowing from the people is based on the savings of the people and hence it is not inflationary and so it may not be called deficit financing.

Now during war times or in the situation of large scale defence preparations when the war is imminent or look so chronically for a long period, the government borrows money from the banking system which leads to expansion of money supply resulting into inflation when total money supply expands at a higher rate than the growth rate of national output. Borrowing from the commercial banks without borrowing from the central Bank will not be so inflationary, as in the absence of central Bank lending, excess cash reserves due to this reason will not be available to the commercial banks and so their lending to the government will be at the cost of the private sector rather than over and above it.

Whenever the government desires to borrow from the Central Bank, newly printed money is given by the Central Bank to the
government. There is a suggestion by Prof. Buchanan that the government instead of borrowing from the Central Bank, should ask the Central Bank to print it for the government so that no debt arises on this score and there does not arise any question of returning it to the Central Bank in future and the problem of paying a lower or higher rate of interest also on this account does not arise. But in practice, it is observed that the government does not repay the amortization charges and interest from the revenue collected through taxation, but again having the fresh doses of borrowing from the Central Bank to repay them. This becomes evident from the fact that the size of the outstanding debt of the government owed to the Central Bank goes on soaring with the passage of time and shows no signs ever to decline. It is just like somebody borrowing 100 Dinars from some one and when the time for its return comes, he may ask for borrowing 200 Dinars from that person himself out of which he may repay 100 Dinars with interest. Thus his total debt has increased though he has repaid the previously borrowed money with interest. This is not genuine repayment, because the outstanding debt does not diminish and it actually increases. It is also worth noting that in case of the government borrowing from the Central Bank, it is newly printed money that is given to the government by the Central Bank. So whether the government gets new money printed by the Central Bank for it or borrows from the Central Bank it does not make any difference, as the government in reality, never makes any genuine repayment as far as the Central Bank as a lender is concerned. Except in the situation of depression or
recession, it is not wiser for the government to borrow from the Central Bank or the commercial Banks, as it is likely to create inflation. So during war times, it is better for the government to borrow from the public so that there is no expansion of money supply and consequent inflation. Inflation in the beginning creates some forced savings by reducing the real incomes of the fixed income groups, but after some time when the rate of inflation gets anticipated, hoarding of goods takes place which reduces real savings and the shift of income from masses to classes brought about by inflation also enhances consumption by rich people which is of luxurious goods and thereby reduces saving. Thus on one hand inflation gives rise to forced savings generated through the lessening of the real incomes of the fixed income groups while on the other hands, it reduces saving by giving rise to hoarding of goods and encouraging vicarious consumption by the rich tycoons made possible by accumulation of functionless income with them. So on the whole total savings diminish in the economy due to inflation. Also available savings get misdirected into investment in land, gold, j ewellery, housing, speculation etc. Which is unproductive. So the government should avoid the way of getting resources for war or for economic development, through deficit financing i.e. through borrowing from the banking system. In that case, the government should borrow from the people. In order to remove depression or recession which is due to shortage of demand for goods (which might have been again the result of previous contraction of money supply), borrowing from the banking system may be resorted to or the government may directly get money privated and finance its
expenditure. Increase in supply will be in place of idle hoarded money and thus total demand for goods will be increased which will help in obviating depression or recession. When the excess capacity starts being utilized for production by the previously unemployed people, the enhanced production meets the increased demand made possible due to expansion of money supply. But then hoarded money also starts getting dishoarded and spent due to the favourable market situation created now which enhances demand for goods further. This will be reflationary, but not inflationary, because new investment also will take place which will increase production. Thus in the situation of depression alone, deficit financing is burdenable, as there is not only the effort of the production structure to rectify its maladjustments created by previous inflation and now being correlated by recession but there is previous deflation of money supply also which has to be corrected by expansion of money supply if depression is to be removed.

But the government in search of resources for attaining rapid economic development, should not resort to borrowing from the banking system, as it is inflationary. This method of deficit financing is to be reflected also because deficit financing does not create any new resources for economic development. Of course, it gives resources to government, but they come from the private sector and as we have seen that due to hoarding of goods, savings diminish and there is misdirection of resources into unproductive channels due to anticipated inflation which harms development. So deficit financing provides resources to government but the
loss of resources in the private sector is greater than the gain for the public sector. So public debt based on borrowing from the banking system is to be avoided, as it defeats its own purpose by creating inflation.

Now the alternative left is that of borrowing from the people because it is based on the savings of the people and not on the expansion of money supply and hence it is not inflationary. But Prof. Buchanan suggests that short term projects should be financed by tax revenue and long term projects should be financed with the help of revenue made possible by borrowing from the people. This separate treatment to be meted out to the short term projects and the long term projects is guided by the basic observation that debt also represents future taxation.

Taxation is compulsory and one-sided and there is no quid pro quo and so there is no interest to be paid while loan implies repayment of it with an additional burden of interest with the help of tax revenue to be collected from the future taxpayers. So taxation and public debt—both are ultimately different kinds of taxation. But the incidence of taxation is in the present while public debt implies incidence of taxation in the future. The benefits of short term projects will be reaped by the present generation while the benefits of long term projects will be reaped by the future generation. So the taxpayers of the present generation should bear the burden of short term projects while the members of the future generation should bear or share the burden of financing long term projects by paying taxes to meet
amortization and interest charges on borrowed money collected for financing these long term projects. Logic of Prof. Buchanan is very sound in this respect and it must be supported.

Another very fruitful suggestion that has been made by Prof. Buchanan in this direction is to earmark in the budget itself the sources of tax revenue to meet the amortization and interest charges of proposed public debt to be incurred. This will make conscious the elected representatives of the people and also the people themselves regarding the prospective burden of incurring of public debt and thereby will provide restraint on them while opting for large sized public debt. This will also restrain the government in their expenditure spree. Thus on one hand, if deficit financing is restricted to the possible size of revenue to be gathered through borrowing from the people and also through external debt, there will be smooth and appreciable economic development with stability, but when deficit financing is resorted to it creates inflation and public debt incurred by borrowing from the people and external debt—both get vitiated and then all these three kinds of public debt create problems which prove to be great hurdles to rapid economic development.

So our conclusion is to put a complete stop to deficit financing and finance the short term projects with the help of tax revenue and finance the long-term projects by borrowing from the people and also by incurring external debt if available while keeping the criterion of the productivity of the debt financed project being higher than the rate of interest all the while in mind.