CHAPTER II
DOMESTIC ASPECTS OF GROWTH AND DEBT SERVICING CAPACITY

It has been indicated in the conceptual framework of the introductory chapter that the long-term aspect of debt servicing capacity should focus attention on the benefits and costs of foreign capital to a developing country in the growth process. If the foreign capital is productively utilized by a developing country, its income will also rise over time. In this context, if the incidence of debt service claims arising out of the foreign capital inflow falls on a part of the increment in income the long-term debt servicing capacity of a borrowing country can be said to be rising. This way of judging the long-term capacity of a country requires a comparison of macro-economic benefits and macro-economic costs of foreign capital over a period of time. The present and the following chapters are devoted to the identification of macro-economic benefits resulting from the use of foreign capital. The macro-economic costs of foreign capital are discussed in the fourth chapter.

The macro-economic analysis in the context of long-term debt servicing capacity requires an examination of the performance of a debtor country in the spheres of (i) income
saving, and (ii) foreign trade. Expansion in income and saving provides the internal basis for capacity to service debt. A sustained growth in income is dependent on growth in savings, and growth in savings depends on growth in income. The savings, however, have to be transformed into foreign exchange through foreign trade balance in order to find the wherewithal for payment on external account. Thus, an increase in exports represents the external basis for successful debt servicing. Since foreign trade influences the magnitude of income generation through terms of trade mechanism the growth in income and saving and growth in transfer capacity are interdependent in the long-run and represent only two different aspects of the process of economic growth partly financed by external loans. The analysis, therefore, can conveniently be carried out under two broad headings, namely, (i) domestic aspect of growth and debt servicing capacity, and (ii) external aspects of growth and the debt servicing capacity. The present chapter examines the former, while the next chapter is devoted to the latter aspects.

The foreign capital may be used to alleviate financial as well as non-financial constraints to growth. Both types of constraints to economic growth are analysed in detail.
The concept of financial constraint refers to paucity of financial resources in relation to domestic investment requirements. This constraint is widely known as saving-investment gap (SI gap).

The vicious circle of poverty makes it difficult for the developing countries to undertake any massive investment programme out of their own resources. Since it has become common to achieve a predetermined rate of investment necessary to achieve a predetermined growth rate in national income or per capita income, the developing countries are always faced with the problem of a substantial gap between available domestic savings and investment requirements. The gap may be measured by an estimation of investment requirements and available savings.

There are two approaches to the estimation of investment requirements.

Capital Labour Approach

One of the methods of estimating the investment gap is with reference to the inter-sectoral transfer of resources e.g. transfer of surplus labour. Thus, a decision has to be
taken as to the probable magnitude of the labour force to be transferred from agricultural to non-agricultural sector. The transfer of labour force is based on the presumption that agricultural sector is overburdened and that the marginal productivity of labour is higher in non-agricultural sector. It is then estimated how much investment will be required for each person added to non-agricultural sector. This is multiplied by the value of total labour force proposed to be transferred. Against this investment required is set the estimated supply of domestic savings which gives the SI gap.¹

**Capital-Output Ratio Approach**

This is the most commonly employed approach for estimating the capital requirements of the developing countries. An incremental capital output ratio (ICOR) is estimated on the basis of the past performance of the country concerned and related to the target rate of growth in income to give the investment requirements of that country. This approach for estimating the capital requirements of developing countries has been employed in many scholarly works.²

**The Saving Investment Gap and the Role of Foreign Capital**

In accordance with the SI gap approach, economic growth becomes the function of the ratio of investment to national
income. The foreign capital is therefore seen as filling in the SI gap, facilitating higher rate of investment necessary for achieving a predetermined rate of growth. If foreign capital were not available, a smaller investment programme would reduce the chance of a developing country of ever becoming 'viable'.

A slackening in the rate of investment activity may tend to reduce the growth rate and rise in the standards of living may become slower, particularly in the face of rising population. If investment targets are to be achieved, a severe cut in consumption will be required for quite some time. If consumption is not reduced, resort to deficit financing to achieve the predetermined rate of investment may encourage inflation. Inflation may result into distortion of the pattern of investment which would frustrate the efforts for achieving a higher rate of growth. In effect the process of economic growth would become extremely painful and difficult. The timely availability of foreign capital can save a developing country from the painful growth process.

The benefits of foreign capital in the process of domestic economic growth of a developing country may be termed as short term benefits and long-term benefits.

The short term benefit of foreign capital in the context of domestic aspect of growth and debt servicing is
that by bridging the SI gap, the foreign capital brings about an increase in the domestic product. This contribution of foreign capital, however, may be regarded as static interpretation of the role of foreign capital in the development process. For, this particular role of capital ignores the long-term aspects of the objective of foreign capital inflow.

The long-term benefit of the inflow of foreign capital is that by initially bridging the SI gap it permits the developing countries to make the transition from economic stagnation to self-sustaining economic growth. This interpretation of the long-term benefit of foreign capital means that the foreign capital is viewed as a 'catalytic' agent in the process of economic growth. It means that when the availability of foreign capital raises the rate of investment and brings about an increase in income, the initial increase in income, saving, and investment through multiplier-accelerator effect would generate further expansion of income, saving, and investment; and, depending upon the input-output coefficients of industries, the 'linkage effect' would trigger off the growth process. Thus the increase in income, saving, and investment which the foreign capital brings about directly and indirectly can shorten the time period of achieving the self-sustaining growth. Use of foreign capital in the development programme of a developing
country thus calls for mobilization of maximum national effort. The role of foreign capital viewed in this way can be considered as a 'dynamic' aspect of foreign capital and economic development. 6

Given the SI gap the magnitude of acceleration in the growth in income depends on the volume of capital inflow. But the volume of capital inflow is sometimes related by the lenders to what is generally known as the country's capacity to absorb capital productively. It is argued by the lenders that any amount received by a developing country in excess of her absorptive capacity would result into waste of capital. The absorptive capacity of a country refers to non-financial constraints to growth. These constraints are analysed below.

II

NON-FINANCIAL CONSTRAINTS
TO ECONOMIC GROWTH

The concept of absorptive capacity as used in international lending is generally understood to mean the capacity of a developing country to productively utilize foreign financial resources. Limits to productive utilization of foreign capital arise, broadly speaking from a country's backwardness itself and non-availability of infra-structural facilities and complementary resources. 7 These constraints
to growth are non-financial in nature and influence the absorptive capacity of a developing country. From the policy point of view it is essential to know the specific limits to absorptive capacity. An examination of the determinants of a country's absorptive capacity is made below.

Lack of Knowledge

Most of the investment projects in the sphere of agriculture, mining, and power require information regarding natural resources, soil composition, meteorology and hydrology etc. Similarly, projects in the industry need a thorough knowledge of alternative technologies. In the absence of such informations, development opportunities are difficult to be identified. Consequently, formulation of a sustained and expanding projects for external financing is effectively prevented. Since the developing countries lack an inventory of soundly conceived and 'bankable' projects ready for aid proposal, it is of little value for the developing nations to expect that their absorptive capacity is limitless. It may be argued here that each lender will be having different view of "bankable projects". For instance there may exist economically sound projects, yet the lenders may be reluctant to finance them on account of (i) their insistence on rather high standards of project preparation, (ii) lack of interest in small and scattered
projects which do not enhance their political prestige or,
(iii) indifference to projects which do not utilise a
substantial part of machinery etc. from the lender country.9

Scarcity of Professional Skills

It is widely felt that the developing countries face a
grave shortage of people who can identify development oppor-
tunities and who can design, build and operate the projects
which involve substantial capital investment.

The lack of people like natural scientists, agronomists,
ingineers (e.g. who can undertake oil exploration work and
survey the mineral resources) etc. prevent the identification
of opportunities to grow while financial and project analy-
sists etc. hinder the formulation of sound projects. The
shortage of the latter is supposed to be a global phenomenon.10
Concretisation of the project requires persons
such as building contractors, construction workers, supervi-
sors etc. who can efficiently execute the project.11 Yet
the operation of a well executed project may be adversely
affected due to unavailability of various grades of skilled
personnel e.g. technicians who can handle and operate the
plant efficiently.

Thus the deficient availability of professional
personnel can adversely affect the foreign capital inflow.
As a matter of fact the lack of professional skills in a developing country during the fifties and the early sixties became the most usual reason for justifying a low absorptive capacity.

**Lack of Managerial Experience**

Management is frequently confused with skill. The latter is something which can be acquired by systematic and regular training. The management on the other hand is a science which requires basic understanding of the elements of finance, techniques of production, human behaviour, foresight, capacity to work in a given environment and to deal with unforeseen circumstances. Management is a sphere where experience both varied and wide counts relatively more than the training. An example of confusion between skills and management is provided by public sector undertakings in India where successful civil servants are entrusted with the management of state enterprises. The fact is ignored that the civil servants are trained for entirely different purpose. As such their experience is different. In such a situation where there is a shortage of managers capital is often put to work inefficiently which is reflected either in losses or low rate of return. This argument is supported by the case of Indonesia where the shortage of managers resulted into inefficient working
of the enterprises.\textsuperscript{13}

\textbf{Sag in Supply of Material Inputs and Indispensability of Markets of Certain Size.}

Once a project is completed, its efficient operation will depend upon (i) regular supply of inputs to feed the capacity, and (ii) to sell the output so produced; assuming as given the supply of other factors discussed above.

The sources of supply of material inputs may be domestic or foreign. Similarly availability of markets may be determined by the access to domestic markets as well as external markets.

The domestic supply of inputs will be determined by several factors. Firstly, the natural resource endowment will determine the domestic supply of inputs. Secondly, given the resource endowment, it is the pattern of investment which will largely influencing the domestic availability of inputs. If the pattern of investment does not take into account the domestic resource endowment, the inputs will have to come from foreign sources. The third important determinant is whether the pattern of investment is internally consistent in the sense that processed raw materials would be provided from the domestic production of such goods.

If foreign sources of supply are not available and the supply of material inputs from domestic sources is not regular the natural result will be generation of unutilised
capacity in the industries. The excess capacity will produce a high ICOR which will reflect waste of capital and not the capital intensity of production.

If the products cannot be sold then also unutilised capacity will increase affecting the efficient running of the enterprise. The reason for not being able to sell the product may be that markets of appropriate size are not available. It may result from the wrong assessment of the likely demand both internal and external or the markets may not have been integrated by adequate transport system. In case of external markets, changing technology may be an important factor. Technology may either reduce the cost of production in the importing countries or provide substitutes for their imports. Therefore, capacity to adapt to these changes in tastes and technology also becomes a significant factor in the assessment of absorptive capacity.

**Institutional Limitations**

It may be possible to overcome the aforementioned limitations at the micro level of an enterprise. There may be, however, certain institutional limitations which cannot be eliminated by improvements in any particular investment project. For, they affect the economy as a whole and make it difficult for all economic units to operate with the prospects of an adequate rate of return on capital. The
institutional limitations refer to the process of decision-making and political stability.

Inability to take decisions in regard to development projects can reduce the number of projects ready for aid proposals. While a general law and order problem leading to political instability in a developing country would shatter the confidence of its potential lenders. In both the cases the volume of foreign capital inflow will decline substantially. As such, the acceleration in the income will also be smaller.

After having discussed the concept and the determinants of absorptive capacity the attention is now focussed on its measurement.

III

MEASUREMENT OF ABSORPTIVE CAPACITY

The absorptive capacity of a country may be measured in terms of productivity of capital. The productivity of capital may be measured by relating investment to marginal rate of return or to ICOR. The absorptive may also be treated as a fixed point without reference to a given rate of return. All the measures are examined below.
Investment Related to Marginal Rate of Return

This approach emanates from Keynes's 'Marginal Efficiency of Capital'. The concept under consideration states that the expected rate of return should fall relatively more steeply in developing countries than in developed countries. The reason is that the determinants of absorptive capacity are relatively in short supply in the former as compared to that in the latter.

In accordance with the approach of the marginal rate of return, the return on each type of investment be equal to that for any other type when the rate of return is properly measured over time. But the concept of marginal rate of return is not operational and therefore equating the marginal rate of return is not feasible due to the following reasons.

Firstly, investment projects are lumpily by nature and indivisible beyond a point, while the concept of the marginal rate of return presumes infinite indivisibility. Lumpiness of investment is particularly pronounced in economic and social overheads which look 10 to 15 years ahead and do not seek to supply the needs for one or two years.

Secondly, projects are interrelated in the sense that return of one project is influenced by the performance of others.
Thirdly, the estimation of the marginal rate of return may itself be influenced by assumptions regarding macroeconomic magnitudes such as income, consumption etc. For, increase in income tends to raise the level of demand which in turn raises the profitability of a project.

**Investment Programmes Related to ICORs.**

A range of investment programmes of varying magnitudes may be plotted on the horizontal scale while the associated ICORs may be shown on the vertical axis. It may be observed that due to elastic supply of complementary inputs in the beginning, ICORs will decline as investment rises. By the same token larger investment beyond a point will raise the ICORs. When ICOR associated with a given investment programme start rising one may say that any investment programme, including the one supported by foreign resources will result into low rate of return. Therefore, the point when ICOR begins to rise will refer to a country's absorptive capacity.

The operational feasibility of constructing a schedule in terms of ICORs can be questioned on practical grounds. An underlying assumption of the approach is that planners have the capacity to predict changes in ICOR with investment programmes of varying magnitudes. It is very difficult to quantify the impact of variations in the size of total
investment on projects costs and benefits. The rate of return of a project is greatly influenced by the exclusion or inclusion of other complementary projects in a smaller or bigger investment programmes. Therefore inspite of the theoretical fascinations of constructing an absorptive capacity schedule, the absorptive capacity of a developing country will be determined by the impression of the lenders about the country concerned.

Absorptive Capacity in Terms of a Fixed Point

If there are practical difficulties in relating investment programmes either to the marginal rate of return on capital or to ICORs it may be argued that the absorptive capacity may be construed in terms of a minimum acceptable rate of return or maximum tolerable ICOR.

In case of minimum acceptable rate of return it may be argued that the absorptive capacity of a country is the rate of GDP expressed as a proportion of GDP, that can be made at an acceptable rate of return, with the supply of co-operant factors considered as given. Thus lower the minimum acceptable rate of return higher will be the absorptive capacity. In this context it may be pointed out that the possibility of increasing the supply of co-operant (complementary) factors which will raise the rate of return in future may justify the acceptance of a lower rate of return.
initially. Therefore, the absorptive capacity of a developing country may be treated as high if the foreign capital helps in augmenting the supply of complementary inputs. As such foreign capital can be helpful in alleviating the very constraints which are generally responsible for a lower absorptive capacity.

The absorptive capacity as a fixed point can also be interpreted in terms of a maximum acceptable ICOR. This criterion also presents several problems which have been discussed above in connection with investment programmes and ICORs. In view of these problems one has to first find out an empirical basis for a maximum acceptable ICOR before treating this as a cut-off criterion for judging the absorptive capacity of a country. This argument applies more to a developing country whose ICOR may be quite high for want of complementary inputs. Therefore, a high capital output ratio cannot be considered as an excuse for withholding the supply of foreign savings to a developing country.

It may be inferred from the foregoing discussion that in the absence of any sound and practicable criterion for measuring the absorptive capacity of a developing country, the assessment of the absorptive capacity of a developing country will depend on the judgement of the lending institutions or countries. However, it is possible to reduce the subjective
element in the assessment of the absorptive capacity by formulating a few indicators to facilitate correct approximations.

**IV**

**INDICATORS OF THE EXISTENCE OF ABSORPTIVE CAPACITY**

In view of the difficulties in measuring the absorptive capacity of a developing country it becomes essential to devise a few guiding principles to appraise the absorptive capacity of a developing country. These principles can also be useful in arriving at policy decisions to deal with various constraints to a high absorptive capacity. The following argumentation is aimed at specifying a few reliable indicators of absorptive capacity of a developing country.

**ICOR as a Criterion for Appraising Absorptive Capacity.**

ICOR may be defined as extra output produced from an additional unit of investment. The ICOR is different from marginal productivity of capital. The latter is the increase in output which is achieved from the application of a given increment in capital with all other inputs unchanged. Whereas in the case of the former with a given increment in capital the increase in output will depend
partly on marginal productivity of capital and partly on the

efficiency of inputs of other factors. Thus, an ICOR reflects

the influence of all the factors affecting the growth of output. Some of the factors affecting the rise in GDP, apart

from capital, may be technological change, improvement in

the quality of human resources, efficiency in resource alloca-

tion and changes in political and social organizations. The same factors also happen to be some of the determinants

of absorptive capacity analysed earlier.

The ICOR can be used as an index of productivity of capital. There is an inverse relationship between the rate

of return and ICOR. Thus lower the ICOR, faster will be

the increase in income, and therefore, greater will be the availability of resources for new investment and also for
debt servicing. The inverse relationship between an ICOR and the rate of return has been supported by many empirical

studies and adopted in many scholarly works.

A high ICOR at any point of time, however, need not be considered as an indicator of low absorptive capacity.

There are theories which suggest that increased amounts of foreign capital in a developing country can make more than

a proportionate change impact on the pace of development. Thus the doctrine of 'big-push' suggests that if a wide

range of productive activities are increased together, they
create markets for each others' goods and so establish the conditions in which all of them can be successful obviously the doctrine of 'big-push' is related to the theory of 'balanced growth'. The implications of these theory is that a high ICOR can be ignored in certain situations and more external assistance should be provided to the country concerned.

The ICOR of a developing country may be high also due to lack of complementary inputs. Therefore, a high ICOR may not indicate low absorptive capacity. When an ICOR is used for assessing the absorptive capacity, one should take note of the availability of complementary factors. In this connection it may desirable to supplement the ICOR by a capacity utilization index.

Capacity Utilization Index.

The function of foreign capital inflow is generally identified with investment opportunities in the traditional sense. If opportunities for investment do not exist absorptive capacity is considered to be low. It would be pertinent to argue that capital formation is concerned with an increase in productive capacity. Actual production may however fall below the capacity. This will tend to reduce output and income and therefore savings. Absorptive capacity may in fact be high if foreign capital is made available to utilize
the existing capacity. Under these circumstances even if net investment is insignificant output will grow which will tend to bring down the IOCR.

Increase in the Rate of Investment.

The most popular and convenient way to measure absorptive capacity has been to treat it as a function of investment. If investment is found to be or expected to be increasing absorptive capacity is considered as rising. As the country develops, many obstacles to growth are overcome. This expands the field for productive investment opportunities. Thus the magnitude of investment rises positively with economic development. Thus absorptive capacity becomes functionally related to development. Absorptive capacity can be said to be reflected in target investment rates of the developing countries. For, any investment target not taking into consideration the availability of complementary inputs will involve waste of capital.20

Increase in the Rate of Saving.

Generally, availability of foreign capital is limited to foreign exchange component of the investment programme. Rest of the capital must come from within the country. If domestic savings are not available, foreign capital will
will also be not available. Consequently investment targets will have to be scaled down, which will mean accepting a lower rate of growth. Financing of the domestic component of the total investment expenditure by means of new money rather than by domestic savings or foreign loans would not only aggravate inflation but also create balance of payments difficulties. Increase in the rate of saving thus enable the country to qualify for larger capital inflow which would accelerate the growth in income.

As explained earlier the saving investment mechanism is at the centre of the growth process. An increasing marginal rate of saving (MRS) indicates the willingness of the borrowing country to mobilize its own resources for economic development. Thus a rising MRS also indicates that the foreign capital is not being substituted for the domestic savings. That the foreign capital is not being used to subsidise domestic consumption. An increasing MRS also indicates that the borrowing country is willing to honour its debt servicing obligations. For domestic savings provide the internal basis for debt service. Rising domestic savings can be transformed into foreign exchange through trade to meet the service charge on external debt. Thus, the MRS is an index of a developing country's desire to reach a stage in which its growth is self-financed.
FOREIGN CAPITAL INFLOW AND ABSORPTIVE CAPACITY

The objective in this section is to examine the justification of the practice of linking foreign capital inflow with absorptive capacity. Further, the role of foreign capital in raising the absorptive capacity of developing countries is analysed and discussed at length.

Linking of Foreign Capital Inflow with Absorptive Capacity.

The concept of absorptive capacity has been, in the past, consciously or unconsciously incorporated in growth models, and many estimates of foreign capital requirements, in the recent past, have been based on the concept of absorptive capacity.\textsuperscript{21}

It may be pointed out that absorptive capacity is not a rigid phenomenon. It can be raised by proper planning and policies.\textsuperscript{22} In fact what is called the constraint of absorptive capacity is in a sense the very essence of being underdeveloped. Therefore, to treat absorptive capacity as a limitation on the absorption of financial resources is to miss the point. Insisting on increasing absorptive capacity before giving more foreign capital tantamounts to telling a poor businessman to ploughback his profits (which do not
exist) in order to be able to get more help later on. Therefore, one of the objectives of external assistance should be to raise the absorptive capacity itself.

It may be noted that determinants of absorptive capacity are what may be called 'non-economic' factors in economic growth. The neglect of non-economic factors results in grave errors of omission and commission. For example, the experience has shown that expenditure on agricultural research can substantially raise the income. That the provision of medical facilities, by raising the efficiency of workers can raise the output without any corresponding increase in the investment in agriculture. These noneconomic factors develop in mature economics to a great extent spontaneously, in response to capital investment. But in developing countries their development has to be planned and consistently nurtured.

In view of the importance of noneconomic factors in the economic development of a developing country, the role of the foreign capital should be to help the country concerned in nurturing the noneconomic factors. The lending agencies should seek out bottleneck and leverage points for inducing growth through raising productivity of existing resources. This may be done by providing inducements to the mobilization of larger amounts of domestic capital, by introducing new techniques, new skills, and new method of production and
distribution. If foreign capital has to play the aforementioned role, for which a case has been made out in this study, the magnitude of the foreign capital inflow, therefore, cannot be related to the concept of absorptive capacity.

**Foreign Capital Inflow and Supply of Material Inputs.**

The inflow of foreign capital may help step up a country's absorptive capacity either by making available material inputs or assist a developing country in augmenting the supply of economic and social overheads.

As regards material inputs, imports can bring into utilisation many unutilised domestic resources if the imported input were the missing link. Thus investment activity may be accelerated directly. Besides, imported inputs may help create capacity in crucial production lines the impact of which extends beyond the point where they are applied. This indicates indirect effect of encouraging investment activity. In addition, imported inputs may permit superior factor combinations which tend to reduce the cost of production and thus enhance the productive efficiency of capital. Non-availability of such essential inputs may become a hindrance to carrying out a pattern of investment which envisages structural change of the economy so that the economy ultimately reaches a point of self-sustaining
growth. Similarly other factors as discussed above and required at various stages of a project e.g. pre-investment, investment, and post-investment stages, can be imported to overcome specific bottleneck situations.

**Foreign Capital Inflow and Economic Overheads.**

The term economic overheads may be conceived to indicate expenditure on providing infrastructural facilities such as those of power, transport and communication, irrigation etc. Modern industrialization requires existence of economic overheads on an appropriate scale. As the economic overhead capital is very lumpy in nature, normal market mechanism in developing countries fails to provide these facilities on an optimum scale. Therefore, according to an estimate, the developing countries are supposed to invest between 30 to 40 per cent of their total investment into these channels in the initial stages.²⁷

Though the services of economic overheads are indirectly productive and become only after a long gestation periods, its most significant products are augmentation of investment opportunities. Rail-road construction for instance, may illustrate the point. Availability of a rail-road system may generate external economics by opening up of markets and reducing cost of transportation. Extension of markets
may accelerate investment, production and employment in the industries immediately affected. This may happen through forward linkage. The backward linkage may also enhance production, investment and employment in the industries which supply materials for rail-road system. Thus the linkage effects may generate direct primary benefits by causing investment and employment to increase. Subsequent increase in investment and employment in other related industries may be termed as secondary benefits.

Indirect benefits may also be caused by the growth of a servicing sector essential for maintenance of the system. Expansion of markets may also take place through creation of demand consequent upon the creation of income in economic and social overhead facilities. The net effect will be that investment in economic and social overheads will create income which in turn will generate the demand for the output of other industries. Above all input requirements will give rise to output of related industries (through linkage effect). Therefore, in short, a primary increase in investment and income will cause a chain of secondary direct and indirect effects.

On the basis of the above mentioned logic it is clearly advantageous to borrow for the creation of economic overheads. Even the experience of the developed countries testifies to the logic of investment in economic overheads.
Foreign Capital Inflow and Social Overheads.

The term social overhead may indicate creation of facilities in the domain of education, health, sanitation etc. which aim at improvement of human resources.

If the capacity of a country to absorb capital useful in the production of goods and services is severely limited by the prevailing knowledge and skills then it becomes imperative to invest in education. If the required personnel for imparting education are not available they may be imported in the beginning. They can supply the needed skills as well as they can train the people. Investment in technical training can be considered to be a sort of external economy which is indispensible for industrial growth. Individual enterprise will not undertake this task. This illustrates a case of divergence of private and social gains. Investment in education may also produce doctors and nurses needed for expansion of health facilities which affect the capacity to work. The case of Upper Volta lends strong support to creation of such social overheads. Foreign capital can be very helpful in these experts at very high remunerations.

After having described the role of foreign capital in creating the economic and social overheads and accelerating the growth by making available material inputs, it may be
pertinent to point out that investments in economic and social overheads may not yield desired results unless they are efficiently planned. For example, creation of skills via educational system, for which a sufficient demand is not likely to come up will not only mean misallocation of resources, but will also generate frustration and political unrest. This may also lead to a costly process of "brain drain" from developing countries to developed countries. The phenomenon of inviting foreign experts at very high remunerations in the developing countries may also cause dissatisfaction among local people as they may remain poorly paid inspite of their being equally qualified. Moreover, foreign experts invited to developing countries may not be really expert. Therefore, the projects formulated by them can lack the understanding of local circumstances, and therefore, these projects may fail to click. The community and agricultural extension programmes are a case in point. Similarly, hundreds of miles of highways may be constructed, still rural folks may not get any benefit. However, a careful handling of economic and social overhead projects can go a long way in augmenting their supply, which in turn raises the absorptive capacity.
Economic policy does not constitute an integral part of the discussion in this study. However, as a cognate issue some observations on the role of economic policy will prove just in point.

In the context of domestic aspects of growth and the debt servicing capacity the economic policy should be geared to encourage and mobilize domestic savings. Domestic savings provide resources which may be transformed into foreign exchange to meet the debt service liabilities. A rise in the rate of savings over a period of time, therefore, means a rise in the debt servicing capacity.

As has been noted above, foreign capital can be helpful in alleviating the non-financial as well as financial constraints to economic growth of a developing country. Thus on the one hand foreign capital raises the effectiveness of investment, and on the other hand, it creates domestic investment opportunities by providing complementary inputs. A higher level of investment raises income as well as savings which can be used for further investment and rise in income and savings. This process of rise in investment, income, and savings can continue only if a part of the incremental income is saved so that the savings can be used for further
investment. In the context of a developing country siphoning off only a proportion of the incremental income would not press upon the existing low standard of living. MRS being less than unity a moderate increase in consumption would be permitted to maintain the incentive to increased production and efficiency.

The task of raising the rate and the volume of savings calls for policies which encourage savings. For, the rate of savings is not only a function of income, but it is also a function of institutional arrangements. The institutional arrangements refer to savings institutions, capital markets, business structure, and government fiscal policies.\(^3\) The institutional factors in raising the rate of savings assume added importance as the correlation between savings and income has been observed to be poor. There are countries who have achieved higher MRS with lower rate of growth. Similarly there are countries who achieved lower MRS but high growth rate.\(^4\) It seems, therefore likely that the institutional factors, which are considerably subject to government policy measures, are more important determinants of the savings ratio than the growth rate in income.

It becomes clear from the foregoing discussion that economic policy can play a vital role in raising the rate of savings. Thus the economic policy of a government will indicate its willingness to raise savings and therefore debt servicing capacity of a country.
NOTES AND REFERENCES

1. This approach was followed in one of the U.N. studies. This study was also one of the first post-World War II attempts to estimate external capital requirements of developing countries. U.N., Measures for the Economic Development of Underdeveloped Countries, (Report by a Group of Experts Appointed by the Secretary General) (New York: United Nations, 1951).


The quantitative formulations of the approach based on ICOR, to estimate the foreign capital requirements will be discussed in fourth chapter.


4. In this connection it may be pointed out that increases in the rate of capital formation in developing countries in the 1950s were financed by the increased flow of foreign savings. U.N. World Economic Survey 1960. Sales No. 61 II. C.I. Chap. II. Quoted in U.N. Department of Economic and Social Affairs, International Flow of Long Term Capital and Official Donations: 1951-1959, SI/ECO/70 P.2.
5. The immediate contribution of foreign in economic development may be measured by comparing its share in GDP and gross domestic saving.


8. The concept of absorptive capacity has been critically explored in the following works. Little and Clifford, International Aid, op.cit., pp. 93-94, 131-137. Nurul Islam, op.cit., pp.21-38.

In the context of absorptive capacity it may be noted that Millikan and Roston have applied a banking concept for allocating aid among various applicants. They mention the following four banking standards which they have used. (pp. 58-61, 70-77).

1. It must be within the technical and administrative capabilities of the receiving country to carry out its proposed project with reasonable efficiency, over the period of the loan or grant.

2. It must be made sure that sources of raw materials, infrastructural services and market at adequate size will be available to make the project a success.

3. There should exist a national development plan giving (a) a review of interrelated projects (b) present and projected level and pattern of investment in public and private sector (c) extent of domestic resource mobilisation to finance the present and projected investment (d) foreign exchange component which should be minimum possible.

4. Balance of payments effect of the total investment programme at the time when interest and amortization payments fall due.
Adler has however, presented the most searching analysis of the concept that "has been used rather uncritically in the past" (p.iii). He has aimed at inquiring into the meaning of the concept, determining its usefulness for policy purposes for receiving countries as well as national and international lending agencies, discussing the factors which determine the limits of absorptive capacity. Mikesell has thoroughly explored and examined the concept of absorptive capacity. His treatment is different from others. He has analysed the concept from the policy point.


14. Cumbersome administrative procedures can delay the decisions on a stream of sound projects. Similarly decision on a project may be delayed if it has political implications like concentration of economic power or where two different states, in a federal set up, are strong contenders for the same project.


17. Thus the ICOR of 4:1 indicates that one unit of investment is associated with an increase of 0.25 units of income; the ratio of 5:1 indicates a return of 0.20.


22. In fact it is implied in all the works which have used the concept of absorptive capacity. The works have been already cited above.


25. It has been found that in Upper Volta, provision of medical facilities by increasing the supply of those workers who are fit to work during the sowing season, can raise the output substantially. Similarly in Ghana availability of insecticides in 1950s and 1960s substantially contributed to the output of Cocoa. Cf. Andrew M. Kamarck, "Capital" and "Investment in Developing Countries", *Finance and Development*, June, 1971, p.4.


30. Andrew M. Kamarek, "Capital" and "Investment" in Developing Countries in Finance and Development, op.cit., p.4.

32. In Liberia, road construction has benefitted isolated tribal groups. Construction of roads in fact has brought harassment to the villagers. Government officers and agricultural extension workers have collected illegal dues from the village dwellers. Besides, the villagers have to pay taxes for the building which will be used as residence by the Government officials. cf. R.W. Clower, G. Dalton, M. Harwitz, and A.A. Walters, *Growth without Development: An Economic Survey of Liberia* (Evanston, Ill: Northwestern University Press, 1966), p. 33.

33. The term business structure is construed to mean the size of the business undertakings, and organized and small scale business.

34. Chenery and Strout, "Foreign Assistance and Economic Development", op.cit., Table 6.