APPENDIX

Critical Review of the Theories of Economic Development.

The purpose of this Appendix is not to evolve a new theory of economic development but to review the broad strands of thought in the existing theories on the subject with a primary object of drawing out of them some lessons which may serve as guidelines to our enquiry into the problems of the economic development of underdeveloped countries or regions in general and of Manipur in particular. We may start our analysis with the classical school.

1. CLASSICAL ANALYSIS

The Classical economists may be given the credit of being the first group of economists who presented a systematic analysis of the causes, the process and the prospects of the long-term growth of a nation's economy. The Classicists realised the 'causal relationship between the major variables of growth - population growth, capital accumulation and technological progress, found out the relative behaviour of the components of national income - rent, wages and profit, and showed how the rate of growth of the economy was affected by such relationship and behaviour patterns. It is true that their concept of the national economy was narrow in as much as they conceived of the national income as consisting of only rent, wages and profit,
and of productive activities as comprising agriculture and manufacture only. But within their narrow frame of mind, they analysed the process of development and propounded certain policies to accelerate the rate of development in their time.

But a vivid picture of the Classical theory of development can be painted only against the background of the postulates on the basis of which the theory was formulated. The main postulates are: (1) man's innate desire for self-improvement, (Smith's Naturalism), (2) an automatic, self-adjusting market mechanism (Say's law of market), (3) wage-population link (4) Operation of diminishing returns in agriculture (Ricardian Theory of Rent), (5) The Labour Theory of Value (Ricardian Theory of Value) and (6) An elastic supply of managerial and labour skills.

On the basis of these assumptions the Classicists construct their theory of economic development. To them development is a long series of cumulative processes. Once the economy starts expanding, one step of expansion will give rise to another until the economy reaches the highest point of development. But how does economic development actually take place in the Classical scheme?

The Classical economists explain the process of economic development with a unique understanding of human nature. To
than the urge for self-improvement is the motive force behind economic advancement. It is out of the desire for self-betterment that man puts forth his utmost exertions. It is out of this desire that he saves and accumulates capital by cultivating the habit of thrift and by postponing present consumption. And capital accumulation is, according to the Classicists, the basic condition for economic development. Given a sufficient amount of natural resources and an adequate supply of managerial and labour skill, capital accumulation can initiate the process of economic development. It is also out of the desire for self-improvement that man likes to truck one thing for another. It is a matter of common-sense that a man cannot produce everything he needs but that he requires everything for his material advancement. Therefore, he has a natural desire to exchange what he produces for the produce of other men's labour. In the words of Smith, there is a natural propensity among men 'to truck, barter and exchange one thing for another'. This natural propensity, in turn, gives rise to division of labour and specialisation which results in an increase in the dexterity of the workers, a reduction in the time required to produce commodities and invention of new techniques of production - all of which lead to economic development. Further the Classical economists perceive in a general way that

the urge for self improvement gives rise to external economies. When a man expands production out of the motive of self-interest his action produces a favourable impact upon the production of others, either by supplying raw material or by providing a market for the finished products. Similarly, when one sector of the economy, expands the other sectors will receive favourable stimuli because the different sectors of the economy are interdependent upon and complementary to one another. In the words of Meier and Baldwin, 'as one part grows, it stimulates other parts not only by increasing demands but also by decreasing costs. These repercussions, in turn, induce additional expansion in sectors where the initial stimulation occurred'.

Although everybody desires self-improvement by saving and investment yet every one cannot save. According to the Classical economists, only the capitalists can save, and they command a lion's share of the 'net revenue' of the society, from which economic development emanates. Now, as the 'net revenue' is the economic surplus available to the society for investment in further production, and as the capitalists are the owners of the surplus, the capitalists play the key role in the classical drama of economic development. It is the capitalists that initiate the process of economic development (by undertaking production). They hire land from the landlords, provide labourers with tools

3. For example, see Smith's discussion on 'Effects of the progress of improvement upon real price of manufacture' in the 'The Wealth of Nations', p.242-47.
and implements and supply them with food and other requirements of consumption during the process of production. Besides, they reinvest their profits in further production and capital formation, and thereby earn larger profits. The enlarged profits are again ploughed back into still further investments and production for several rounds. Thus the capitalists set in motion a series of events leading to cumulative growth. Moreover, in their ceaseless search for the most profitable employment opportunities for their capital, the capitalists tend to equalise the rates of return on capital in the different branches of production. This brings about an efficient allocation of resources, which results in higher production and speedier rate of growth. The Classical economists recognise the roles of labourers and landlords as well. But their roles in the development process are, except in the earlier phases, more negative than positive. In the earlier phases when the rent is not high and the natural resources are relatively abundant an increase in the labour force stimulates economic growth. But in the later stages when rents are high and population outgrows natural resources the portion of the national income that goes to the landlords and the labourers seriously erodes the share of the capitalists in the same. This is likely to hamper capital accumulation, and hence, economic progress.  

This is the gist of the Classical analysis of the process of the development of the national economy. But their vision of economic development expands far beyond. They believe that the benefits of division of labour and specialization can be reaped on an international scale by resorting to free international trade.

Although the Classical economists recognized the immense possibilities of economic growth in the way we have just described, they believed that the process of economic development cannot go on indefinitely. In the early phases of development when natural resources are relatively abundant, the development process moves on in a cumulative fashion along with increases in population and capital stock. But ultimately when population outstrips natural resources and when the capital stock becomes very large, a stage will be reached where a profitable investment of capital, and hence further growth, become impossible. "Because of the niggardliness of nature the process of development shifts the relative shares of the various economic groups in such a way that the portion of net revenue from which accumulation stems - profits is eventually reduced to an insignificant level. Then further growth ceases". Then the stationary state comes. But how does the development process bring about the shifts in factor incomes that bring the economy to a halt?

The best answer to this question is given by Ricardo who contends that it is the erosion of profit by rent and wages that brings the economy to a "Stationary State". In the earlier stages of economic development when natural resources are relatively abundant to population capital accumulation raises both real wage rate and money wage rate. But as the economy gradually matures, real wage rate lags behind the money wage rate, and ultimately becomes stationary at the subsistence level, because the increase in population stimulated by the rise in real wages will push back the rate of real wages to customary subsistence level. In other words, the rise in real wages is only temporary. But the increase in money wage will continue, because the additional food required by population growth can be produced only at increasing cost. This raises the price of agricultural produce, and since food articles constitute a major item of consumption in the ordinary working class budget, the necessity of maintaining the minimum level of living of the workers will raise the money wage rate. Along with the rise in the money wage rate, the rate of rent will also rise because the growth of population will compel the margin of cultivation to shift to the more and more inferior varieties of land. Correspondingly the rate of profit will decline and capital accumulation will slaken. In turn, the national income will decline. Finally, the rate of profit will fall so low that it will not at all be worth while to save and invest. At this stage the economy becomes stationary and develop-
ment stops. In the stationary state, rent and money wages touch the ceiling, the rate of real wages is at its minimum and profit rate is near zero. Hence capital accumulation and growth cease.

Ricardo is aware that technological improvements may mitigate the downward pressure on profit. In agriculture as well as in manufacture, by diminishing the amount of labour required to produce a given output, invention makes it possible to produce larger amount of commodities without increasing their prices. This enables a given increase in population to take place without as great an increase in money wage rates as would otherwise be necessary. The rate of profits, therefore, does not fall as much with a given population increase. Nevertheless he maintains that the effects of technological progress are not strong enough to vitiate the general conclusions. Technological progress can at best postpone, but cannot check, the advent of the stationary state.

The Classical economists had a faith in economic freedom. Given free competition, they believed that the market mechanism would adjust itself in such a way that a perfectly harmonious economic order would emerge. To them free competition was the 'natural sovereign law' sufficient to secure everything desirable in the economic world including general economic progress. On the other hand, the Classicists had a general distrust of the State. They believed that instead of setting things right, the Government would only make matters worse. "By levying high
tariffs, it keeps the price of food high; by subsidizing the poor, it encourages overpopulation; and, by appropriating part of the national product for unproductive uses, it impairs the potential for the creation of wealth. Therefore, as a matter of public policy, the Classical economists recommended minimum state intervention in economic matters including foreign trade. Another point which occupied the Classical mind was the constant fear of feeding the teeming millions, which lies at the very root of Classical pessimism. The Classicists, therefore, recommended wide measures of population control ranging from moral restraint to such preventive measures as abolition of the Poor Law and prevention of the marriage of the indigent.

Appraisal:

Although the Classical economists attempted to present a systematic analysis of the development process, there are certain disquieting features in their treatment of the subject. First, they forecast the advent of the 'stationary state' as the inevitable terminus of the long term development of economic society. This pessimistic forecast of the future of the society is, however, based on two assumptions which are not necessarily true: historical diminishing returns in agriculture and Malthusian principle of population growth. The history of economic progress of many European countries has amply demonstrated that

7. Meier and Baldwin, loc. cit., p.46.
the Classical economists grossly underestimated the potentialities of technological progress in counteracting the tendency towards diminishing returns. The validity of the Malthusian theory of population has also been equally challenged. Instead of a recurrent tendency towards diminishing returns and an ever-increasing population, both leading to declining rates of profit and slower pace of capital accumulation, we find rising profit and increasing capital accumulation. (Malthus failed to realise that technical innovation could more than offset the law of diminishing returns). Therefore, the Classical conclusion about the advent of the stationary state has to be modified. Second, the Classical economists fail to explain adequately the problem of maintaining the aggregate demand. They simply assume that income paid out in the process of production as rent, wages and profit is completely respent. Landlords and labourers are assumed to spend the whole of their incomes completely on the purchase of consumer goods, and the capitalists are supposed to invest all their savings. As such, there is no general glut of commodities for want of effective demand. However, this is quite contrary to the real picture of the economy, especially in its

9. The Classicalists were not unaware of technological progress but they argued that technological progress was capital absorbing and therefore they stressed capital accumulation (or investment) and the net saving needed for it.
mature stage. Third, the Classical economists assume the existence of an economic environment favourable to growth. Institutions, attitudes and abilities favourable to growth are assumed to exist already. Therefore, once the necessary amount of capital is accumulated, economic development is expected to proceed on as an automatic process. But this assumption is quite unrealistic. In many countries of the world the real problem of development lies in the absence or inadequacy of favourable social institutions. Inhibitory social factors prevent structural changes so essential for economic development. However, as a guide to the development efforts of underdeveloped economies the greatest flaw of the Classical theory lies in that it results in too slow a rate of growth. The Classical economists assigned crucial roles to indigenous savings and the extent of market in the development process. By expanding the investible funds via increase of domestic savings and by extending the market development could be stimulated. But it is extremely difficult for an underdeveloped country either to accumulate an adequate amount domestic capital or it to extend the market. In this context of the near-impossibility of stimulating the crucial variables beyond their natural rate of growth, an underdeveloped economy has to follow an extremely slow process of growth if it relies on the Classical theory of development. But most underdeveloped countries cannot afford to do this as they like to make rapid strides.
In spite of all these limitations, the Classical analysis is a pioneering attempt to understand the process of development. Their concept of economic development as a gradual and cumulative process is widely accepted by present day thinkers on the subject. Their emphasis on securing an economic surplus and its re-investment in productive activities remains a central theme in the attempts of the underdeveloped countries of the modern world to achieve rapid rates of growth. Moreover, the Classicists viewed the economy in a dynamic setting. Although they forecast the advent of the 'stationary state' as inevitable, they visualised the movement of the economy from one stage to another until the stationary state would be reached. The very fact that the Classical economists recognised the interactionary impact of the major variables of growth—capital accumulation, population growth, technological progress, the laws of returns and components of the national income on one another and on the rate of growth of national income—proves that their approach is dynamic and not static.\(^\text{10}\) As a matter of fact, it is not an exaggeration to say that 'Classical economics is an outstanding illustration of the dynamic and aggregative theory of development'.\(^\text{11}\)

\(^\text{11}\) Meier and Baldwin -op.cit. p. 46.
2. MARXIAN ANALYSIS

The Marxian analysis of the development process made a distinct departure from the Classical analysis of the problem. This does not, however, mean that there is no similarity between the two systems. As in the Classical analysis, the capitalist's desire for accumulation is the mainspring of economic development in the Marxian system. To Marx, as to the Classicists, an act of saving would automatically imply an act of investment. Both agreed upon the gloomy future of capitalism as well. The Classicists predicted the advent of the stationary state as inevitable. Similarly, Marx considered the ultimate collapse of capitalism inexorable. The basic analytical difference between the two is that whereas the Classical economists based their analysis of the development process on the assumption of an intimate wage-population link and of an inevitable operation of diminishing returns, Marx had no faith in either. Marx assumed that although population grew steadily, it had no relation with fluctuations in wage rates. According to him, wages were likely to remain stationary at a low level not because of population pressure but because of exploitation of labourers by the capitalists. Unlike the Classicists who had little faith in the efficiency of technological progress in preventing the arrival of the stationary state, Marx believed in the capacity of technological progress to arrest the tendency towards diminishing returns. Furthermore, unlike the Classical economists who believed in the
so called self-adjusting mechanism of the market resulting in a smooth operation of the economy, Marx considered cyclical fluctuations an integral part of capitalistic development. The assumptions of the Marxian analysis of the process of development are, therefore, (1) a constant urge for accumulation among the capitalists; (2) a steadily rising population, the rate of growth of population being independent of the rate of increase in real wages; (3) constancy of real wage rates at the subsistence or near-subistence level; and (4) equality between saving and investments; which does not, however, rule out the possibility of economic fluctuations. On the basis of these assumptions Marx built up his theory of economic development, the gist of which is given below.

Marx's theory of surplus value provides the key to understanding his theory of economic development under capitalism. Marx thinks that the essence of capitalism lies in the division of the population into two classes - the capitalists and the labourers. The former owns the means of production i.e. equipment and raw materials required for production, whereas the latter has only labour-power to sell and cannot produce anything without the help of the capitalists. The available supply of labour-power and the existing means of production are capable of producing a flow of commodities that is greater than what is needed to maintain the labour supply and the capital stock intact. In other words the economy is able to produce a surplus over and
above the value of the subsistence needs of the workers and value of the equipment and raw materials used up in production. Marx calls this the 'Surplus Value'. The surplus value comes into being because labour power possesses a unique characteristic of yielding more than its own value when it is used in production. Although Marx is aware that labour in isolation cannot produce anything and that other factors are also necessarily employed in production, he attributes the surplus value to labour alone because he thinks that 'Nature without human assistance such as land, water, and wind transfer no value to the product'. Yet, according to Marx, the whole of the surplus value is appropriated by the capitalists who leave nothing out of it for the workers. This is possible because Marx assumed that at any time the supply of labour exceeds the volume of employment that a full utilisation of existing stock of capital can provide. The redundant labourers will compete with the employed labour force and tend to press the level of wages down to the subsistence level. In the Marxian analysis, the process of economic development as well as the germ of the forces of disintegration of capitalism are generated in the attempts of the capitalists to enlarge the flow of the surplus value.

Marx divides the total value of the products of an economy during any given period of time into three components - the constant capital (c) i.e. the value of the equipment and raw materials used up in production; the variable capital
(v) i.e. the value of the labour-power expended in production during the period; and the surplus value(s) as defined above. Marx derives three ratios from these components of the total value $s$, the rate of exploitation $\frac{s}{c + v}$, the rate of profit; and $\frac{c}{c + v}$, the organic composition of capital. These ratios are of fundamental importance in the Marxian analysis of the development process. The goal of the capitalists is to increase the flow of the surplus value which they receive. Given the labour force employed, this can be done by (1) lengthening the working day (2) reducing the wage rate and (3) increasing the productivity of labour. Generally, capitalists do not rely upon the first two methods because they know that there is a definite physical limit to increasing the number of working hours per day, and that if the level of wages is pushed below the subsistence level, supply of labour cannot maintained intact. Therefore, they resort to the third method viz. increasing the productivity of labour. But this involves an increase in capital accumulation and a change in the state of technology. In other words, more and more labour saving equipment will have to be introduced to derive an increasing flow of surplus value from the employment of a given labour force. Along with this production will be expanded and growth will proceed on.
Appraisal of Marxian Theory of Capitalist Development

Marx claimed that the whole capitalistic system by its very nature was an overwhelming contradiction and that its ultimate collapse was inexorable. He visualised the course of the system as subject to periodic crises the acuteness of which would tend to increase along with the increase in the intensity of the internal contradictions of the system until the entire system would ultimately collapse. But time has passed and the Marxists have still to wait for things which are not likely to occur at all. The reason is that there are basic contradictions in the Marxian logic itself. Marx rejected the Ricardo-Malthus wage-population link, as also the Ricardian hypothesis of diminishing returns. He however, assumed a steadily rising population (rising independently of wage fluctuation) and constancy of the rate of real wages. Once the aforesaid Classical assumptions are rejected and the new assumptions are adopted, it is not logically possible to prove the total breakdown of capitalism. The capitalist system would of course be subject to periodic crisis, but every depression would be followed by a boom. Therefore, "All that Marxian logic could prove under conditions of a constancy in the level of wages was the impossibility of accumulation being a continuous process." Another basic contradiction lies in the Marxian analysis of the effects of a rise in the ratio of

13. Ibid., p. 388.
capital to labour. Marx believed that development of capitalism brought about a rise in the organic composition of capital which would in turn lead to a fall in the rate of profit. But profit rate in the Marxian scheme will fall only on the assumption of a constancy of the rate of exploitation. But this assumption contradicts another Marxian assumption viz. constancy of real wage rate at the subsistence level. "As the capital employed per man rises, labour becomes more productive and a given labour force produces a greater output. A constant rate of exploitation means that the output is divided between capitalists as profits and labour as wages in a constant manner. Thus labour receives constant share of a growing stream of output or greater absolute real wage." Thus the assumption of constant rate of exploitation which is necessary to prove that profit rate will fall contradicts another assumption viz. constancy of wages. Mrs. Robinson, therefore, aptly remarked that "his (Marx's) explanation of the falling tendency of profits explains nothing at all". As a matter of fact real wage rates have been rising in many capitalist countries. Marx also vastly exaggerated the effects of technological progress on employment. It may be conceded that sometimes technological progress produces large scale unemployment in some particular industries, but the phenomenon is by no means so general as to create a huge and permanent pool of unemployed labour force as Marx had imagined. On the contrary,  

14. Meier and Baldwin, p. 64.  
the net effect of technological progress has been to increase the demand for labour rather than decrease it, since the investment associated with technological progress raises the aggregate demand.16 Two other weak points of the Marxian analysis need to be noted: 17

(a) His exclusion of population pressure is a handicap in the explanation of underdevelopment problem;
(b) he failed to see that technological progress might be confined to only one sector of the economy leaving the other sector underdeveloped; he neglected the problem of 'dualism'.

Despite these shortcomings and contradictions in the Marxian logic, Marx occupies a prominent place in the galaxy of evolutionary development theorists. No social scientist has so deeply understood the impact of the capitalist machine, and shown in so grand a vision its immense power to transform human civilisation in the process of technological and social change. 18 For sometime the Marxian theory was discredited and his 'Capital' was described as "an obsolete economic text book."19 But the Marxian tool box (especially his assertions that supply and demand do not balance automatically and that unemployment was a normal feature of capitalist development, came to the rescue of the economists who were unable to understand the work-

18. Alfred Bonne as quoted by V.S. Neg in his "Problems of Underdeveloped Economy".
Even Keynes who criticised Marx severely assimilated later on in his analysis, some of the fundamental elements of the Marxian theory of economic development like the falling rate of profit, the state of chronic underemployment and industrial unemployment. "Even the anti-Marxist cannot question Marx's deep insight into the development process, its uneven and sometimes discontinuous occurrence, its tendency to nourish a monopoly element and its impact on social structure. This is why few thinkers in history have had more direct or pervasive influence than Karl Marx." 20

Marx and Underdevelopment:

Karl Marx concentrated his attention mainly on the development of capitalism and its effect in the Western countries which had already felt the impact of the Industrial Revolution. In his preoccupation with the problems of these countries, Marx could not devote much attention to the problems of economic development in the underdeveloped countries. He paid no special attention to the problem of change in underdeveloped countries. Therefore, most of the basic concepts used in Marxian analysis have no relevance for the problems of underdevelopment. For example, his concept of under-consumption is quite different from the type of under-consumption that we find in the underdeveloped countries. The basic cause of under consumption in

the Marxian analysis lies in the imbalance between the highly
developed productive forces and the limited purchasing power of
the working class, whereas, the root cause of under consumption
in the underdeveloped countries is to be found in the low level
of output due to undeveloped production potentials. So also his
concept of unemployment (the existence of the industrial reserve
army) is quite different from the type of unemployment and under­
employment that we find in the underdeveloped countries. As a
matter of fact the situation is so different in the two types
of countries that a completely separate analytical framework is
called for, the solution of the problems of underdeveloped coun­
tries. Yet underdeveloped economies with abundant population
have to learn two big lessons from Marx. First, Marx's idea of
labour as the source of economic surplus has a very significant
implication for thickly populated backward countries in their
scheme of capital accumulation for economic development. If these
countries are somehow able to utilise their huge man-power in
capital construction programmes, they will be able to move with
greater strides along the road to prosperity. This method of
capital accumulation is much better than the Classical method
in that while the latter involves curtailment of consumption to
increase saving, the former need not reduce the existing level
of consumption. Second, Marx's idea of a permanent pool of un­
employed labourers resulting from the capitalists' attempt to
increase the surplus by introducing more and more labour saving
machines serves as a guide-post to choice of technique suitable for underdeveloped countries. Technological progress is an essential condition of economic development and every under-developed country should attempt to improve its technique of production. However, if the country has a large population it cannot adopt highly labour saving techniques. It will have to be satisfied with intermediate techniques i.e. techniques which are fairly productive but not highly labour saving.

Moreover, underdeveloped countries in general may benefit from the following ideas in Marxism.21

(1) Technological progress is the mainspring of economic growth;

(2) Investment decisions are based on the rate of return on capital and not on the level of profits as the Classicists thought;

(3) Economic development under capitalism tends to take the form of fluctuations; economic growth is a destabilizing phenomenon;

(4) Saving-investment relationship is a function of income distribution;

(5) Employment and unemployment are major variables of economic growth; and

(6) Sociological factors are important determinants of economic growth.

The neo-classical writers made a definite shift from the classical and Marxian schools. Unlike the Classical writers they had no faith in the inevitability of the stationary state. To them development was a gradual, automatic and harmonious process holding out high hopes about its continuity. Unlike Marx, they did not believe class-struggle as a necessary concomitant of the development process, because these economists had an unshakable faith in development as a harmonious process benefiting all economic groups. Again unlike the Classicists and the Marxists, the neo-classical economists did not consider capital accumulation an arduous process. The Classical and Marxian emphasis on the creation of an economic surplus to keep the capital stock intact lost its significance in the time of the neo-classical writers who lived in an age of plenty.

The neo-classical economists demonstrated that the rate of change of population was not tied to changes in per capita income in the simple Malthusian fashion. They also abandoned the Classical assumption of a fixed proportion between labour and capital because they recognised the possibility of substitution of labour by capital, which implied that an economy could accumulate capital without the necessity of increasing the labour force. The neo-Classicists further supposed that much of the capital accumulation was stimulated by the progress of technology and growth of resource-knowledge. But they held
that progress of technology and discovery of resources could not be explained by a simple set of economic relations. Thus the neo-Classical economists came to the position that changes in population, capital stock and technology, which affect the rate of change in national income were determined largely by forces outside the realm of economics. However, once this position is accepted the "analyses of the development process tend to be restricted to a discussion of the consequences of certain changes in factor conditions". 22 Thus while the Classical economists attempted to build a comprehensive theory of development incorporating the causes and process of development and also the long term behaviour of the rate of growth, the neo-Classical economists were mainly concerned with the analysis of the impact of changes in factor conditions on the process of growth. Such analyses, though very important, "lack the grandeur of the classical theory of development." 23

This new approach made the neo-Classical economists concentrate their attention on short run problems. "Most of them were primarily interested in the inter-relations among the various parts of the economy at a particular moment of time rather than in how these parts behaved over long periods of time. The type of development that one visualises with this approach is that achieved by a more efficient allocation of given resources." Given factor supplies, the neo-Classical

22. Meier and Baldwin, op.cit., p.68.
23. Ibid., p.68.
economists believed that it was possible to achieve higher national income under competitive conditions than under monopolistic situations since competition ensured an efficient distribution of resources among the different uses. There was, however, one significant exception to the general practice of concentrating on short term problems. One problem they studied was the rate of interest the price that connects the present with the future. The neo-Classicalists emphasized the rate of interest as a crucial factor in economic development since they believed that interest rate was an important determinant of both the rate of saving and the rate of investment. Technological progress was yet another crucial factor in promoting economic growth. The neo-Classicalists believed that by reducing costs, improvements in the method of production would enable the investors to expand the scale of production, which would in turn, lead to economic advancement.

Yet a fuller understanding of the neo-Classical thought can be gained by discussing three inter-related ideas in their economic vision viz. the neo-Classical vision of economic development as a gradual and continuous process, their emphasis on the harmonious and cumulative nature of the process and their optimism regarding the possibilities of continued economic progress.

That economic development is a gradual and a continuous process is amply demonstrated in the writings of Prof. Alfred
Marshall, a doyen of the neo-Classical school, who wrote in his 'Principles', "The Mecca of the economists lies in economic biology rather than in economic dynamics". 24 Describing Marshall's organic view of the economy, Prof. Pigou, another neo-Classicist wrote, "Progress or revolution, industrial and social is not a mere increase or decrease. It is organic growth". 25 This biological view of economic life suggests that economic development is a gradual and continuous process.

Here, one may wonder how the neo-Classical writers are able to reconcile the great technological innovations of the 18th and 19th centuries with their model of gradual change. The neo-Classical writers are fully aware of the significance of these innovations. Yet they find no difficulty in reconciling the apparently great changes with their model of evolutionary change because they think that a major act of invention or discovery which seems to bring about a sudden change at one stroke is in reality nothing but the culmination of a long series of gradual and continuous efforts.

Another way of reconciling the two is that although invention or discovery may appear to be a sudden process, innovation, that is, application of the invention or discovery of science to industrial and business purposes is a gradual phenomenon, depending upon the availability of entrepreneurs of great

ability and with big resources, who adopt for business purposes the results of scientific enquiry.

Besides being gradual and continuous, the development process, the neo-Classical economists believe, is also harmonious and reinforcing. There are two reasons for this belief. First, development benefits all income groups in the economy. Second, development in the different sectors of the economy are interdependent and complementary as growth in one sector stimulates growth in other sectors. Unlike Ricardo who hints that class conflict may arise in the long-term process of economic development (landlords aggrandising themselves at the cost of the workers and capitalists) and Marx who explicitly states that class struggle is an essential feature of development under capitalism, the neo-classical economists believe that the fruits of economic development are shared equitably by all income groups in the society, the labourers, the landlords and the capitalists.

The other aspect of development as a harmonious process is to be explained through the concept of 'external economies' introduced by Marshall and extended by Allyn Young. Marshall says that 'external economies' occur from 'the growth of co-related branches of industry which mutually assist one another, perhaps being located in the same localities'. 26 Young goes a step further and says that the impact of the expansion of one industry is not confined to a given set of industries.

but it is all pervasive in the sense that such an expansion not only benefits the existing industries but also brings about, through the operation of increasing returns which permits an elaborate division of labour and extension of the market, qualitative changes in the old industries and also the creation of entirely new products and markets. 27

Another aspect of the neo-Classical vision of economic development is their optimism about the possibility of continued growth in the future. A typical tone of neo-Classical optimism is found in the writings of Prof. Marshall when he says "There seems to be no good reason for believing that we are anywhere near a stationary state". 28 The neo-Classical optimism is not without adequate reasons. The neo-Classicists believe that human efforts manifested in the form of technological progress, capital accumulation and improvement in the quality of labour tend to result in increasing returns in different fields of production.

However, the neo-Classical economists cannot completely allay the Malthusian fears when they look far ahead. Knut Wicksell, a prominent neo-Classical writer remarks "The unprecedented growth of population recently witnessed...........will certainly........... prepare the way for much slower progress and possibly for comple-

tely stationary condition." Even a robust optimist like Marshall cannot escape from this fear when he says "if the growth of population should continue for very long even at a quarter of its present rate, the aggregate rental values of land for all its uses (assumed to be as free as now from the restraint of public authority) may again exceed the aggregate of incomes derived from all other forms of material property." 30

Appraisal:

In constructing a model suitable for development in the capitalist countries of Western Europe, the neo-Classical economists make a number of assumptions such as the existence of political stability, a strong habit of thrift among the people, an adequate supply of trained labour and managerial skill, free competition, mobility of factors within the economy, a rapid flow of knowledge within and among nations, and above all a firm will to develop among the people. "They especially emphasise quantitative changes in the population, capital stock, natural resources, and improvement in techniques." 31 On the basis of these assumptions, the neo-Classical economists have given a unique description of the causes and process of economic development in those countries. But such an approach to the

30. Marshall - Principles XV-XVI.
development problem is obviously too narrow for it assumes away, and hence, tends to minimize the significance for development of changes in such unmeasurable and non-economic elements as the degree of political stability and attitudes of the people.

Another weakness of the neo-Classical approach lies in the assumption that the forces making for economic development work in a gradual and continuous fashion. This assumption implies the existence of an economic environment in which there is a high degree of certainty and in which a careful and rational calculation is possible. But in actual economic life such an environment is rarely found. Economic life is full of uncertainty and very few industrialists can proceed on the basis of a cool calculation. Another implication of the assumption is that once technological knowledge has advanced and material resources are forthcoming, the application of the new technological knowledge to production will be an automatic process. But there is no such automaticity. In the absence of ambitious entrepreneurs who are always on the look out for new innovations in expectation of higher profits, the technological and resource knowledge will remain unutilised.

Still another drawback of the neo-Classical model is the assumption of full employment as a normal feature of a free enterprise economy. The neo-Classical economists are so complacent about the possibility of maintaining full employment that they do not adequately discuss the problem.
But as a practical guide to the underdeveloped countries, the greatest flaw of the neo-Classical model lies in its neglect of the structural changes of the economy over a long period of time. These economists concentrate their attention mainly on the analysis of the interrelations among the various parts of the economy at a particular moment rather than on how these parts behave over a long period of time. But the major problem of the underdeveloped countries consists in the attempt to move away from their static position, which is possible only through structural and long term changes.

Yet the neo-Classical economists have underlined a very important aspect of the development process viz. the complementarily and interdependence of the growth of the different sectors of an economy. This is a great lesson to the underdeveloped countries, because once this aspect of the development process is adequately recognised, the major task that remains for policy makers is to find out the strategic sectors of the economy the expansion of which will generate favourable stimuli to all the other sectors of the economy. The realisation of the possibility of all-round development by stimulating the strategic points will definitely encourage the search for the strategic sectors. Moreover, the neo-Classical model, by emphasising the significance of a rational allocation of resources, gives a hint to the necessity of evolving a wise investment pattern in the strategy of economic development. Further, by interpreting the Classical
doctrines with the help of Keynesian concepts and doctrines, the neo-Classical writers have rendered immense help in viewing the basic forces of growth in a better perspective and in getting a clearer understanding of the manner in which they function. 32 This is amply illustrated in the growth models of Mrs. Joan Robinson, J. E. Meade, and N. Kaldor. 33 The problem of population in a growing economy and its effects on the rate of capital accumulation and growth of output are brought out clearly in Joan Robinson's model of economic growth. Similarly, Meade's growth model explains the roles of the net stock of capital in the form of instruments of production, the labour force, land and natural resources and technological knowledge in determining the net output of an economy, while Kaldor's growth model gives great prominence to technological improvement as a determinant of economic growth. Besides, Prof. Rostow 34 links up social and institutional factors with economic forces of growth through certain observable propensities of the community such as "the propensity to develop fundamental science", 'the propensity to apply science to economic ends', 'the propensity to accept innovations' 'the propensity to seek material advance' 'the propensity to consume' and the propensity to have children'.

   (c) N. Kaldor 'A Model of Economic Growth' - Economic Journal, 1957.
4. SCHUMPETERIAN ANALYSIS

Schumpeter's vision of economic development is essentially different from those of the Classical and Marxist schools. His analysis of the development process promises, at first sight, a refreshing change from the Classical forecast of a gloomy future of capitalism and the Marxist prophecy of the painful death of capitalism. For nowhere in his analysis does the Ricardian law of diminishing returns or the Malthusian principle of population or the Marxist vision of an inherent tendency towards a maldistribution of income find a place. Schumpeter contends, on economic grounds alone, that "Capitalism can yield ever higher levels of real income at the cost of nothing more than temporary interruption in economic activities". However, his argument has a Marxist twist in as much as he contends that the very success of capitalism in the economic realm breeds changes in social attitudes and institutions that will ultimately destroy the system. In other words, "Schumpeter shares Marx's conviction about the inevitable breakdown of capitalism, though the former ascribes it to the very success of capitalism while the latter attributes it to its failure". Like Marx he stressed autonomous investments as against induced investments. Again like Marx, he stressed the sociological factors and spoke of the "Social Climate". Schumpeter's view of economic development is

also fundamentally different from that of the neo-Classical school. Whereas the neo-Classical economists view economic development as a gradual and harmonious process, Schumpeter thinks that economic development is a disharmonious phenomenon consisting of sudden burst of economic activities largely resulting from innovations.

In Schumpeter's view of economic development the entrepreneur is the central figure. He is the creative agent and the innovator who brings about new methods of production. He is responsible for the introduction of new type of goods, the opening of new markets, the discovery of new sources of raw materials and also for the reorganisation of any industry.

Another important point in the Schumpeterian vision of economic development is that unlike the neo-Classical economists who emphasise the significance of the act of savings, Schumpeter stresses the difficulties involved in investments. Assuming that development is a smooth and gradual process, where cool and rational calculation is possible, the neo-Classical economists think that there is no special difficulty in arriving at investment decisions. Schumpeter, however, rejects the neo-Classical stand. To him the economic world is a world full of risk and uncertainty in which rational calculation is not possible and the ordinary business man hesitates to increase the scale of his investments. "A specially motivated and talented type of individual the entrepreneur - is therefore necessary
in this environment both to see potentially profitable opportunities and to exploit them.  

This does not, however, mean that the act of saving, or more correctly, the supply of investible funds has no significance in the Schumpeterian system. As a matter of fact, investible funds have a definite role to play. But the act of saving enters the Schumpeterian system in a model way. Schumpeter relies for supply of investible funds not on the abstinence of the routine savers but on the credit-creating banking system. The entrepreneurs can easily expand their investments by borrowing from banks. But this very process produces a sort of forced savings in the economy. Under conditions of full employment the expansion of innovating activities by the entrepreneurs bid up the prices of the desired factors of production. Further, if the factors were employed previously in consumers goods industries, their movement into investment channels of the entrepreneurs reduces the output of consumer goods forcing the economy to save more. Thus forced saving becomes an essential part of the development process. Nevertheless, there are definite limits to the amount of capital accumulation that occur by the inflationary method. As price rises along with the expansion of credit, entrepreneurs find it increasingly difficult to secure real resources. However, Schumpeter thinks that as innovations get fruition the entrepreneurs will repay the bank loans out of

their profits. This will initiate a deflationary trend and the net effect is a spurt in real investment which would not have been possible but for the expansion of bank credit.

Another feature of the Schumpeterian model which increases the prominence of the entrepreneur is the minimisation of consumer sovereignty. Schumpeter assumes that changes in the tastes of consumers are mainly brought about by the action of the producers who produce new articles and introduce them to the consumers. Schumpeter does not deny that in a few cases consumers themselves may initiate the change; but he thinks that the degree of such changes is too insignificant to bring about a major shift in production.

**Appraisal:**

Schumpeter's theory is undoubtedly a major performance full of the brilliant reasoning and insight of a great theorist. But it lacks generality as it emphasises only one particular set of relationship.

Schumpeter's analysis of entrepreneurial innovations is highly useful in understanding the historical development of capitalism. But today the nature of the innovating process has undergone a significant change. Formerly innovations were carried out either by the inventors themselves or by the entrepreneurs who purchased from them (inventors) the rights to new products
or process. But today innovations are carried out in large corporations by a number of people in a routine and calculable fashion. It is not possible to identify any single individual as the entrepreneur. Under these circumstances it is best to regard innovation as a normal part of business activities. "Research and development cost might be regarded as business expenses that yeild a normal return in the form of new products and process, just as other business costs do."³⁸

We may now turn to the question of applicability of this model to underdeveloped countries. There are three cardinal points in the Schumpeter model: (1) the individual entrepreneur provides the driving force of economic development, (2) innovation is the essence of the development process and, (3) profit maximization or enrichment of the entrepreneur is the goal of economic development. We have to examine the validity of these points in the context of a developing economy. To begin with the role of the entrepreneur, there is ample evidence to prove that it is not the individual entrepreneurs but the Government and other public and semi-public bodies that are giving the motive force to economic development in underdeveloped countries. The Social and economic backwardness of and the scale of investment to be undertaken in the developing countries largely account for this un-Schumpetarian situation. While the traditional entrepreneurs are both weak and unenterprising, and while the traditional attitudes towards investment, particularly industrial

³⁸ Meier and Baldwin: op.cit., pp.97-98.
investment are not so encouraging, the scale of investment to be undertaken is enormous. Besides investments in the directly productive channel, an unusually large provision has to be made for preparing the basic economic and social overheads which constitute the essential prerequisites of economic development. Under such circumstances, the individual entrepreneurs are found to be unequal to the arduous task and the Government is compelled by popular demands to bear the major responsibility for initiating and sustaining the development process.

Further, the enormousness of this task and the acute shortage of resources with which the Government has to work made it impossible for the Government to undertake risky experiments. It has simply to import well-tested techniques from abroad. In other words, instead of attempting at uncertain and risky innovations, the Governments in underdeveloped countries have to depend on what is known as the 'derived development'. Thus innovation in the Schumpeterian sense has very little to do in the underdeveloped countries.

The immediate motive behind economic development in the Schumpeter model is also quite different from that underlying economic development in underdeveloped countries. In the Schumpeterian model the immediate objective is the entrepreneur's desire to get maximum profit and not the economic welfare of the people. If economic welfare accrues at all to general population in the Schumpeterian system, it results indirectly
from the increase in production. However, the immediate object of economic development in underdeveloped countries with State Planning is the maximisation of the economic welfare of the entire population in the State.

All these considerations seem to suggest that the Schumpeter model has little application to the problems of underdeveloped countries. Besides, his definition of economic development excludes from the ambit of economic development many activities which are considered to be essential parts of the general process of economic development. According to Schumpeter, economic development comprises only such changes in economic life "as are not forced upon it (the economy) from without but arises by its own initiative from within". This insistence of Schumpeter on endogenous factors as the sole cause of economic development hardly meets the problems of underdevelopment in poor countries, because, in the economic development of these countries exogenous factors have a big role to play. As a matter of fact the rate of growth in underdeveloped countries would be extremely slowed down, if not altogether stopped, were it not for external assistance in terms of foreign capital and technical know-how. All this, however, does not mean that the Schumpeterian model is absolutely useless in the context of an underdeveloped economy, nor does it imply that state Planning in such an economy has negated or even reversed the Schumpete-

rian model. As a matter of fact the Schumpeterian model 'works effectively. But since that system is being applied to different institutional and social circumstances from the one which Schumpeter had in mind, his system has to be modified to that extent'. What is really required in a developing economy is a sort of force which raises the economy from the present state of inertia or sluggishness and quickens the rate of development in such a way that the economy attains the stage of self-sustained growth within the shortest possible time. In this process of transformation the State has to play a great role. It has to break the traditional rigidities by providing for the basic economic and social overheads. It has also to render substantial assistance in initiating and sustaining the production of goods and services. But it will not have to do every thing. Taking into account the meagreness of resources at the command of State relatively to the magnitudes of the task which demands its attention, it is neither possible nor desirable for the State to occupy the whole economic scene. The state has to concentrate attention on the preparation of the ground for the emergence of entrepreneurial spirit and once "the spirit of entrepreneurship has been created, then the profits can be easily ploughed back for purposes of accumulation and the economy can go into self-sustaining growth.”

41. Ibid., p.31.
To conclude, underdeveloped countries have two important lessons to learn from our analysis of Schumpeterian model.

First, economic development cannot take place by marginal adjustments which result from changes in the consumers wants initiated by the consumers themselves. It requires structural changes in demand to be initiated by the producers who produce new articles and introduce them to the consumers. Secondly, such structural changes cannot be brought about in the absence social and economic overheads for the preparation of which the state should assume the major, if not entire, responsibility.

5. KEENESIAN ANALYSIS

Keynes does not make a systematic study of long term economic development under capitalism. He is mainly concerned with short-run fluctuations in the level of employment and output. Like older theories, Keynes's 'General Theory' is a theory of equilibrium.42 But its novelty lies in that it postulates that equilibrium is possible at any level of employment and that the rate of interest is purely a monetary phenomenon. This novelty, in turn, leads to practical policies like cheap money policy, deficit public spending etc. as measures for achieving full employment. Indeed, the real beauty of Keynesian analysis lies in its practical significance in the field of

public policy. Keynesianism dominates many of the contemporary plans for national economic development in the developing countries of the world and his influence "permeates all official international gatherings grappling with economic problems". Here, our purpose is to examine the applicability of Keynesian analysis to the problems of underdeveloped economies. This may be done by applying the basic concepts of Keynesian economics to the underdeveloped countries.

Theory of Employment : Effective Demand :

We may first take up the Keynesian theory of effective demand and employment. Keynes assumed an advanced capitalist economy as the background of his theory. "An economy is capitalistic if productive activity is carried on private account with hired labour and is also advanced if there is a high labour productivity due to the country being capital rich." In such an economy employment is mainly wage employment, production is mainly for profit, investment is mainly on private account and capital shortage is no bar to expansion of employment. It is in the context of such an economy that the Keynesian theory of effective demand and employment is essentially valid and is of great significance as a guide to practical policy.

44. K.S. Gill - "Keynesian Economics and underdeveloped countries" - The Indian Economic Journal, Oct., 1954, p. 120.
But the problem of unemployment in an underdeveloped country is fundamentally different from that in an advanced country in that while deflationary unemployment due to deficiency of demand is the main trouble in the advanced capitalist economies, it is not so significant, though not entirely unknown, in the underdeveloped countries, the main problem of these countries being chronic unemployment of the structural type and underemployment due to shortage of complementary resources, and also in that while the volume of unemployment is quite unstable in the former type of economies, it is relatively stable over years in the latter type. Accordingly, the solutions demanded are also different. While in the developed countries the solution lies simply in the quantitative expansion of employment to the level of full employment by stimulating effective demand, in the underdeveloped countries the real solution is to be found in both quantitative expansion in the volume of employment and qualitative improvement of the income content of employment. It is incorrect to ignore or to under-rate either aspect of the problem. What the underdeveloped economies need is both more and better jobs, both fuller and more fruitful employment.

Now, improvement in the income content of employment is possible only by improving capital-labour ratio. Thus while in the advanced countries, the basic problem is to create sufficient demand,

The Multiplier:

Full employment or at least a high level of employment is undoubtedly a desirable objective of economic policy in any country irrespective of the level of its economic development. But keeping the problem of underdevelopment in mind, our interest is not so much in the expansion of employment as such as in the expansion of employment as a means to economic development— as a means of generating higher real income, larger investment and hence faster capital accumulation and, therefore, of generating still higher real income. We have, therefore, to study the Keynesian theory of income propagation through the operation of the principle of multiplier, and examine its relevance to the underdeveloped economies.

In an underdeveloped economy as the people are living at the subsistence level, they will spend a larger proportion of any increase in their income than people in an advanced country will do. In other words, the marginal propensity to consume and, therefore, the multiplier will be high in such an economy. From this one may conclude, following Keynes, that an initial increase in investment of a small magnitude will be
capable of yielding, over time, a large increase in employment, output and real income, and that, therefore, it will be easier to achieve full employment and higher and real income in an underdeveloped country than in an advanced economy. This conclusion is, however, highly misleading because (i) the average propensity to consume also being high in an underdeveloped economy along with the marginal propensity to consume, only an insignificant proportion of the national income is available for investment and (ii) the structure of the underdeveloped economy is such that it does not permit a free play of the multiplier. The volume of investment being small both absolutely and relatively to the volume of consumption, manipulation of investment is unlikely to produce any significant effect upon the volume of employment and output. But what is more important is the structural rigidities of the underdeveloped economies, which hamper the smooth operation of the multiplier. Unlike the type of the economy which Keynes had in mind at the time of formulating his theory, an underdeveloped economy is a predominantly agricultural country where the capital labour ratio is pretty low, where the technique of production is vastly inferior to that in the advanced economies, where the number of workers employed on wage is insignificant - the vast majority of earners being own-account workers, where a significant proportion of the national output is produced for self-

consumption and not for sale, where there is an acute shortage of necessary inputs and where there is no significant excess capacity in the existing industries. Under such circumstances the multiplier principle does not operate in the simple fashion visualised by Keynes primarily for the industrialised economies. Agriculture which constitutes the most important consumer goods industry in underdeveloped countries is an industry in which the supply curve is steeply inelastic. The cultivators in these countries find it extremely difficult to increase their output in response to increased demand largely because of the rigid system of land holding and shortage of necessary inputs. Besides, in most of the underdeveloped countries variations in agricultural output depend upon the uncontrollable vagaries of nature; and price control and Government procurement act as disincentives to higher production. The result is that agriculturists cannot expand their output along with the increase in their money income. When the primary increase in income resulting from an initial increment of investment is spent on the output of agriculture, the income of the agriculturists rises appropriately. But it is not followed up by these agriculturists increasing their own output and thus adding to both employment and real income. As the real income falls short of money income, inflation ensues.

The same conclusion follows when we consider the behaviour of the agriculturists as consumers in response to the increase in income resulting from an initial investment. They
consume more of their output or consume better variety of food grains as their income increases. This results in a reduction of the marketable surplus of food-grains. This means, in turn, that the non-agricultural sector of the economy has to pay higher prices for its foodgrains without an appropriate response on the part of the producers in the agricultural sector.

The position is not significantly different even in respect of the increased consumption of non-agricultural goods by agricultural consumers. This is because of many factors such as absence of effective excess capacity in manufacturing industries, shortage of basic inputs necessary for additional production, inelastic supply of skilled labour and various bottlenecks arising out of controls and the general atmosphere of a shortage-dominated economy, all of which inhibit expansion of output and employment in the non-agricultural sector. To the extent that the agriculturist consumers spend a part of their additional income on non-agricultural goods, a tertiary increase in money income takes place, but not a corresponding increase in output or employment. Thus the primary increase in investment and, therefore, increase in income and employment leads to secondary and tertiary increases in money income but not in output or employment either in the agricultural or in the non-agricultural sector of the economy. In other words, the multiplier principle operates with reference to money income but not with reference to real income or employment in the context of
an underdeveloped economy because of the structural rigidities of such an economy.

Thus the Keynesian theory of income-propagation does not operate as smoothly in an underdeveloped economy as in the industrialised advanced economies. Therefore, Keynes's practical policies have less efficacy in the underdeveloped economies. The common belief that what is required for economic development in an underdeveloped country is an increase in the purchasing power of the people has no foundation. Accordingly, deficit financing and cheap money policy cannot be fully relied upon as instruments of creating higher income and employment in such a country. If they are to be resorted to at all as instruments of economic development in underdeveloped countries, they should be sparingly used.

It should not be supposed from the foregoing discussion that Keynesian economics is entirely useless for the solution of the problems of underdevelopment. Here we are tempted to quote Prof. K.K. Kurihara who aptly remarks, "To those who remember the name of Keynes only by his short run dictum that 'in the long-run we are all dead' it may come as a bit of surprise to discover that he had anything at all to say about the long-run. True, Keynes made his greatest theoretical contribution in the field of short-term economic analysis, but his short run was never too short to let him take his wings into the long-run, as the reader of his varied writings knows. Moreover,
Keynes's insights and theories will be found to have greater relevance to underdeveloped economies than is commonly supposed, particularly those which are inclined to develop along democratic rather than authoritarian lines. 48

Keynes had a broad insight into the fundamental conditions of economic progress. In his essay, 'Economic Possibility of Our Grand-children' Keynes suggested that the future of economic progress would depend on (a) 'our power to control population' (b) 'our determination to avoid wars and civil dissensions' (c) 'our willingness to entrust to science the direction of those matters which are properly the concern of science' and (d) 'the rate of accumulation as fixed by the margin between our production and consumption'. Here, we have the most comprehensive outline of the fundamental conditions of economic progress embracing all the wisdom of the classical thinkers and underlining all the complicated growth models of the contemporary writers. The full development of the broad insights into operationally significant growth models was the task left for the post-Keynesian economists. However, Keynes himself made a "significant start in the direction of measurable and testable hypothesis about the determinate rate of economic progress." 49

49. Ibid., p. 19.
Turning to the technical aspects of Keynes, we may first of all observe, in the words of Mrs. Joan Robinson\(^5\) that "although Keynes's 'General Theory is strictly static in form, it has opened the way for a great outburst of the analysis of dynamic problems'. The Keynesian theory of effective demand is the stepping stone towards Harrod's dynamic theory of growth. "For it is but a step from Keynes's static condition of saving investment equilibrium in terms of levels to go logically to Harrod's dynamic condition of saving-investment equilibrium in terms of ratios ................. and hence to Harrod's warranted rate of growth".\(^{51}\) Domar's model of growth is also influenced by the Keynesian concept of 'multiplier'. It is also true to say that R. Nurkse and J. Robinson were influenced by Keynes although they 'shifted the direction of dynamic economics to underdeveloped economies'.\(^{52}\) Secondly, Keynes's national income analysis provides the basis for development programming and for estimating the operationally significant variables of economic development such as savings, consumption, investment, employment etc. As Prof. Kurihara has rightly pointed out, 'one cannot begin discussing economic development without reference to the quantities, and functional relations stressed in Keynes's 'General Theory', although those variables must be supplemented

\(^{50}\) In the preface of her 'The Rate of Interest and other Essays', MacMillan & Co., London, 1953.
\(^{51}\) K.K. Kurihara, op.cit., p.20.
\(^{52}\) Ibid., p. 21.
by what Harrod calls 'the fundamental conditions' such as population, technology and resources in any long run analysis. Last but not the least, there is Keynes's contribution to the idea and establishment of the International Bank for reconstruction and Development. The Bank owes much to Keynes's bold imagination and genuine internationalism. Keynes rejected the Marxian idea that international economic heterogeneity was the permanent way in which the rich capitalist nations exploited the backward nations. He had an unshakable faith in international economic homogenization as a path to universal prosperity and lasting world peace. He deemed the world Bank to be a proper instrumentality for making the savings propensity of the world's richer members compatible with the development needs of its poorer members'.

6. POST-KEYNESIAN ANALYSIS

As discussed earlier the Keynesian analysis is essentially an analysis of short-period fluctuations. The post-Keynesians have, however, been attempting to extend the Keynesian system into a comprehensive theory of long-period growth of employment and output which treats short-period fluctuations as being embedded in a long-period setting of economic growth. The basic question which the post-Keynesians attempt to answer is "What are the basic conditions of maintaining a steady growth"

53. Ibid., pp. 21-22.
of full employment income without inflation or deflation". Among
the post-Keynesian writers, Harrod and Domar provide an impres­sive answer to this question. In this section an attempt will be made to have a bird's eye view of the Harrod-Domar model of
growth with a primary object of testing its relevance to the
analysis of the problem of economic development of an underdeve­lop­ed economy.

Both Harrod and Domar are concerned with the conditions
required for maintaining full employment equilibrium over the
long-period. Although their models of growth differ in details, they are essentially similar in substance. Therefore, we are
treating them as a single model. Stated simply, the major point
in the model is that "assuming initially a full employment
equilibrium level of income, the maintenance of this equilibrium
year after year requires that the volume of spending generated
by investment must be sufficient to absorb the increased output
made possible by investment."54 Given the marginal propensity
to save, the larger the amount of capital accumulation and the
higher the level of income already achieved, the larger must be
the absolute increase in net investment required to absorb the
increased saving. Therefore, in order to maintain full emp­loym­ent, net investment must go on increasing. This, in turn, re­quires that the national real income must go on increasing at
a constant percentage rate i.e. "it must grow at a constant

geometric rate, with time'. 55

According to Harrod, the volume of saving in an economic system depends upon the level of income, the net saving of a community during any given period being a constant proportion of the income during that period; 56 and the volume of investment depends upon the rate of growth of income, the desired investment of any period being a constant proportion of the excess of income in that period over the income of the preceding period. 57 If slump is to be avoided intended saving must be matched by intended investment, and in order to induce the entrepreneurs to invest just that amount (i.e. the amount of intended investment) income must be growing. Now, increased income will generate increased saving and, therefore, increased investment and to sustain the rising investments income must be rising further and so on. Thus intended saving and intended investment will be in equilibrium at rising level (prosperity level) of income only if the rate of growth of income increases gradually.

According to Domar also, intended saving depends upon the level of income. If intended investments are forthcoming to match intended savings, the productive capacity of the economy will expand. Now, if deflation is to be avoided, i.e. if the expanded capacity is to be fully utilised, investment and,

57. Ibid., p. 41.
therefore, income must expand. The expanded income will give rise to higher savings and investments. But more saving and investment will expand the productive capacity still further and so on. Again, to maintain steady growth, income must expand gradually.

The gist of the Harrod-Domar analysis may be given as follows:

1. Investment is the centre of the problem of steady growth in as much it generates income and also increases the productive capacity of the economy.

2. The increased capacity can result in increased output or greater unemployment depending upon the behaviour of income. If income expands at the 'warranted' or 'required' rate along with the increase of productive capacity, output will expand; if income does not increase at this rate unemployment will follow the expansion of productive capacity.

3. Therefore, to maintain full employment over time, full-employment income must grow at a rate sufficient to absorb full-employment savings and to ensure full utilisation of the capital stock. Income must increase at a compound interest rate if full employment is to be maintained.

4. These conditions, however, designate only a steady line of advance. The actual rate of growth may deviate from the 'warranted' or the 'required' rate of growth. If the actual rate exceeds the warranted or required rate there will be chronic
inflation; and if actual rate is less than the warranted or required rate the economy tends towards chronic deflation.

**Appraisal:**

Harrod-Domar model makes a number of assumptions such as initial existence of full employment, equality between average and marginal propensities to save, constancy of the propensities to save and capital output ratio, equality between actual and intended saving etc. which are not established by the facts of real life. The model, therefore, lacks empirical basis. On the basis of these rigid assumptions, the Harrod-Domar analysis have yielded extra-ordinary impressive conclusions. The "analysis almost has the reader visualizing the economic system as a nervous tightrope walker. The system gets into trouble unless it sticks to a precisely determined narrow path". 58 But once we remember that the model lacks empirical basis, the conclusions are not as startling as they seem to be. Thus even in the context of an advanced economy which the writers have in mind, the analysis is of limited validity. However, the significance of the model becomes even more limited if we examine it from the point of view of an underdeveloped economy.

1) Harrod's 'Warranted' rate of growth fails to provide a practical guide to industrial programming, 59 so essential for an underdeveloped economy trying to achieve economic advance-

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ment. His 'warranted' rate provides an answer to the problem of finding out the conditions for maintaining stable growth of advanced capitalism. Harrod contemplates a world in which the propensity to save has a persistent tendency to exceed the inducement to invest and in which there is, therefore, a strong tendency for cyclical depression and secular stagnation. Harrod points out that when the actual rate of growth (representing trial and error effective demand) falls short of the warranted rate (representing the required productive capacity) cyclical deflation will follow, and that if and when the 'warranted rate exceeds the 'natural' rate of growth (representing the maximum productive capacity consistent with actual population and trend of technology) there will be a tendency towards secular stagnation. This analysis indicates that Harrod's 'warranted' rate can at best suggest counter-cyclical and counter-stagnation policies, but it is not a guide to industrialisation programming.

Similarly, Domar's 'required' rate of growth does not provide an answer to the problem of developing a backward economy. Like Harrod, Domar contemplates a situation in which there is deficiency of effective demand because of (a) a high saving ratio (propensity to save) and (b) a high productivity of investment. Domar takes the constancy of a high saving ratio and a high productivity of investment for granted on institutional and empirical grounds and then proposes the technological or fiscal adjustment of the rate of growth of net investment to
the prevailing value of saving ratio and productivity of investment. But the typical situation found in an underdeveloped economy is just opposite of what Domar has in mind. Here, the problem is neither that of a high saving ratio nor a high productivity of investment. It is the problem of low saving ratio and low productivity of investment. What an underdeveloped economy requires is to adjust its 'institutional psychological complex' in such a way as to increase the saving ratio, given the rate of growth of investment and the productivity of investment or to bring about technological changes so as to increase the productivity of investment given the volume of net investment.

(2) The Harrod-Domar model cannot guarantee full employment of labour although it lays down the conditions for full utilisation of capital. The type of unemployment which Harrod and Domar have in mind is essentially the Keynesian involuntary unemployment which is due to due deficiency of effective demand. This type of unemployment can be cured by stimulating the effective demand to a point where it justifies full utilization of capital. In an advanced economy where there is no shortage of capital and other inputs, stimulating effective demand will give rise to full utilisation of productive capacity and the latter (full utilisation of productive capacity) will lead to full employment of labour also if there

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60. Ibid., p.69.
61. Ibid., p.69
is a balance between labour force and supplementary resources (i.e. productive capacity). But the structural unemployment from which the underdeveloped economies suffer arises mainly from a persistent tendency of capital accumulation to lag behind the growth of population. This type of unemployment cannot be removed 'simply by increasing effective demand to a point where it justifies full utilisation of available capital'.

(3) The preclusion of autonomous investments renders Harrod's concept of 'warranted' rate of growth analytically inadequate for the purpose of underdeveloped economies. Harrod defines away public (Governmental) investments based upon long term view of the marginal efficiency of capital and general social advantages - the type of investments which have been assuming increasing importance in the development of the underdeveloped economies of the 'mixed' type.

However, in spite of all these limitations, the Harrod-Domar analysis has yielded a brilliant synthesis between the Classical and Keynesian thoughts on economic development. This synthesis is of a great significance from the view of a developing economy. Unlike the Classical economists who emphasised the capacity - creating aspect of investment (i.e. capital accumulation via investment), but, took adequate demand for granted, and Keynes who emphasised the demand-creating aspect of investment but ignored the problem of capacity-creating, Harrod and

62. Ibid., p.65.
Domar attempt to consider both aspects of the investment process. This is highly significant because no developing country can ignore without grave consequences either aspect of the investment process in the scheme of its development planning. While the capacity-creating aspect is more important in developing countries with smaller stocks of capital, the demand-creating aspect is more important in advanced countries with large capital stocks. In the words of Domar: 'In the Soviet Union (representing a relatively underdeveloped socialist economy) investment and technology are wanted to enlarge the country's productive capacity .... In the U.S.A. (representing a highly developed capitalist economy) on the other hand, little is said about enlarging productive capacity. Technological progress is wanted as a creator of investment opportunities". This realisation of the capacity-creating aspect of investment has a very significant bearing on investment programming in a developing economy. Ignoring that investment results in expansion of productive capacity, Keynes emphasised only the quantum of investment and did not bother about the qualitative content of investment. Any type of investment e.g. digging holes and piling them up was not undesirable to Keynes. But an underdeveloped economy cannot neglect the qualitative content of investment. It has to channel its investments in such directions as are capable of expanding the productive capacity of the economy to the highest

possible limit so that the economy may move forward with a
greater momentum.

Moreover, as Prof. M.S. Khan has rightly pointed out the Harrod-Domar analysis throws considerable light on the
process of growth of an underdeveloped economy. For example, the model shows that given, the rate of net investment, the
capital co-efficient (capital-output ratio) and the rate of increase in population, it is possible to calculate the maximum
rate of economic development that may be achieved. It can also determine how much increase of population can be absorbed in
the economic system, given the rate of development of the
economy, the capital co-efficient and the rate of net invest­
ment. Moreover, given the desired rate of development of the
economy, the rate of population growth and the rate of net
investment, the model can show what kind of technology will
have to be adopted to achieve the desired rate of investment.
Finally, the model can determine how much investment will be
achieved needed a desired rate of economic advancement, given
the rate of increase of population, the capital co-efficient
and the desired rate of development itself.

The Harrod-Domar model also serves as a warning against
the danger of inflation in underdeveloped economies. The model
contains, by implication, the suggestion that underdeveloped
countries are hyper-sensitive to forces causing inflation.

64. M.S. Khan: "India's Economic Development and International
Economic Relations", pp.4-5.
Relatively small absolute changes in the rate of growth or capital accumulation can constitute big percentage changes for the simple reason that initial rates of growth and capital accumulation are low.  

7. STRUCTURAL CHANGES

The Harrod-Domar model brings into light a very important aspect of the growth process that investment for maintaining growth is capacity-creating as well as income-generating. But it fails to bring out clearly another equally important aspect of the growth process viz. changes in the structure of the economy. In an economic system where growth is taking place, innovations are necessary to maintain the profit rate at the equilibrium level. But innovations have unlimited ramifications in the economy and they are expected to change the structure of the whole economic system. This aspect of the problem is proposed to be outlined here.

Assuming that the economy has overcome the barriers to initiating growth and is embarking upon a period of sustained growth, the problem at point is to indicate in broad outline the major changes that take place as the economy continues to grow over a substantial length of time.

The works of Kuznets, Burns and Hoffmann provide the source material for the theoretical discussion of this general problem, and heavy reliance is placed upon them. For those

66. Simon Kuznets, "Quantitative Aspects of Economic Growth" (contd).
countries and industries for which data are available for a fairly long period of time it seems reasonably clear that no one narrowly defined industry will continue to grow at a constant percentage rate; rather, it may be expected to grow strongly in the period immediately after its inception, and then to taper off as it catches up with the rest of the economy. This means that during any given period of time a few industries grow at a rapid and vigorous rate and, as it were, pull the rest of the economy. But the rapid rate of growth cannot continue indefinitely. As the industries catch up with the rest of the economy their growth rate tapers off towards the growth rate of the whole economy, and then decline below the latter. When an industry has caught up with the rest of the economy, its future growth rate usually depends upon the behaviour of three factors: population, demand and technology.

It is obvious that the demand for a commodity will change along with changes in the population and per capita income. Therefore, the influence of population changes need not be separately explained. It may better be combined with the explanation of the influences of changes in demand.

When an economy grows along with rising population and per capita income, the composition of the output in the economy will change. In particular, the size of agricultural output relatively to the total output of the economy will


decline as the economy emerges from a very low and constant per capita income status into a situation where per capita income is increasing. In the initial stage of development the demand for agricultural commodities will rise both relatively and absolutely immediately after the rise in per capita income (or better distribution of income). But once the demand for agricultural produce of the people who were living at the subsistence level has been satisfied the demand for agricultural commodities will relatively decline and the demand for non-agricultural products will increase. Now, the decline in the growth rate of the demand for agricultural produce will release resources from the agricultural sector and these resources will be available for production of commodities which are beginning to enjoy an increasing demand. To the extent that this process of transfer of resources is successful and the economy changes from an essentially agricultural society to an industrialised one, additional growth-effecting factors may arise of which two are of particular importance.

First, along with the changes in the composition of output the capital-output ratio will also change. "It is especially important to note that as capital accumulation finds its way into manufacturing activities, the capital-output ratios may be significantly different from those which obtained when the economy was primarily agricultural". 677 If the saving-income

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677 Ibid., p.264.
ratio remains constant then such changes in the capital output ratios will produce changes in the overall rate of growth of output.

The second factor relates to general social and cultural patterns which characterise the economic system. Very often it is found that industrialisation tends to be accompanied by urbanisation, and to some extent, it may be argued that urbanisation is a necessary concomitant of industrialisation. The new social and economic conditions required for a successful change-over from a predominantly agricultural society to an industrial one are likely to thrive better in an urban environment than elsewhere. "It has therefore to be expected," in the words of Bruton, "that as the level of per capita income reaches the point where the demand forces resources into areas other than agriculture, the extent to which population is concentrated in urban areas is increased, and in particular, the extent to which it is concentrated in other than small agricultural villages is greatly increased."  

68. Hoselitz, in his articles 'The city, the Economic Growth' in American Economic Review XLV, 1955 (pp. 166-84), points out that urban centres in modern under-developed countries do not follow the description given here. This may be explained by noting that increased rate of urbanisation that has taken place recently in such areas has not been in response to attractive economic advantages. Rather, the increased urbanisation is the result of unemployment and other economic pressures in rural areas.

The industrialisation-urbanisation movement produces, in turn, further consequences of relevance to economic growth. Workers come in contact with new ideas, new thinking and new ways of doing things. This increases the fluidity and flexibility of the social system in which the economy operates, and thereby, facilitates and encourages the adaptation, and even creating, of improved economic processes. Thus industrialisation "results not merely in a change in the composition of output, but also, and more importantly, in the emergence of an environment which rather than impeding technical and social innovations, makes change a part of the routine of the economic process."\footnote{70. Ibid., p.265.}

A final factor has to be introduced to account for the behaviour of individual sectors. This is innovation. If the rates of innovation were the same in all sectors of the economy the relative positions of its different sectors would remain unchanged. But innovations will undoubtedly take place at divergent rates among the several industries, and "such divergencies will produce changing relative costs, which in turn, produce incentives to alter input combinations and consumption patterns."\footnote{71. Ibid., p.266.} These innovation-induced changes would then tend to have an effect similar to that of changes in the composition of demand in that both the effects would necessitate...
shifts in the outflow of goods. Such shifts require structural changes throughout the system.

Thus changes in demand and technology bring about changes in the structure of the economy and of the institutions therein. Of course, there are other causes of such changes arising with the economy and from non-economic spheres. But surely, the behaviours of demand and technology are the most strategic. From this it follows that a country whose economic system remained stagnant for a long time is likely to have an institutional and structural framework which is alien to the growth process. Therefore, when the economy begins to grow after a long period of non-growth, the existing institutions and social organisations may well constitute a more fundamental bottleneck to the growth process than will simply a low rate of capital accumulation. It must, therefore, be emphasised that the growth process must be viewed in a larger context than simply the arithmetic of capital-output ratios, saving-income ratios and population growth rates. Of greater relevance is an understanding of the mechanism by which the general environment, within which the economy functions, changes in response to those forces immediately responsible for a rising per capita income. 72

72. Ibid., p.267.
It is true that there are interesting theories dealing with the stages of development, ranging from List's to Rostow's. But we have deliberately omitted detailed discussion of these theories since they do not throw up any variable that has not already been given in the different growth models we have outlined. Perhaps, the only significance of the stages of growth theories is that they indicate that different stages of development of an underdeveloped country call for different policy measures - what is appropriate to one stage may not be appropriate to another.