



M.A. (ECONOMICS) PART-II

PAPER : I

Semester-III

**POLITICAL ECONOMY
OF DEVELOPMENT**

UNIT NO. 2

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Lesson No :

- 2.1. Marxian Critique of Orthodox Economics
- 2.2. Nature of Capitalist Development:
Schumpeter's Formulation
- 2.3. Transition from Traditional to Modern
Capitalist Economy : Rostow's Formulation.
- 2.4. Transformation of Traditional Agriculture :
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MARXIAN CRITIQUE OF BOURGEOIS (ORTHODOX) ECONOMICS**2.1.1 The Basic Premises of Paradigms of Orthodox Economics**

The dominant school of thought in the orthodox economics is the neo-classical school. Keynesianism has merely become pragmatic method of dealing with practical problems of the capitalist economy. A watered down version of Keynesianism has been incorporated into what Samuelson has called the grand neo-classical synthesis. We would, therefore, outline the basic premises of the neo-classical school of economic thought.

(A) Unscientific Theoretical Gaps

2.1.1.1 The neo-classical economics can be characterised in the most general terms as follows :

In the first place, it is individual and subjective seeing society as a collection of individuals whose nature is, for analytical purpose, assumed to be given on predetermined, quite independently to the social phenomena under consideration. Its object is to explain these social phenomenon by relating them to the psychological characteristics of the given individuals and the initial situations in which they find themselves. Neo-classical economics sees social reality as the interaction of individuals whose natures are unvarying eternal. Society is explained in terms of the individuals rather than the individuals in terms of society. This view stands in sharp contrast to the view of Marxists and such non-Marxists as Durkheim who see the individual as a product of society and who seek to explain social phenomena in terms of social laws which do not derive from the individual. In Marx's work, the individual appears merely as the representative of specific social relations. The accumulation of capital, for example, is not seen as the result of capitalist greed or subjective time-preference. But as expression of the immanent law of capitalist development which can be understood without any reference to the subjective characteristics of the individual capitalist.

In the second place the neo-classical economics suffers from what might be described as naturalism. The way of production is treated in neo-classical economics as remarkable similar to the way in which the individual is assumed to be a social, so too is production. Instead of seeing framework of social relation, neo-classical economics sees production as social or natural process in which inputs of labour, land and means of production misleadingly described as capital, are mysteriously transformed into outputs of material and non-material goods.

In so far as property relation enter into this picture, they relate not to the labour

process, or what Marx called the appropriation of nature, but to the distribution process, what Marx called the appropriation of the product. Thus, when Debreu, a leading modern exponent of neo-classical school, talks of private ownership of economy, he is not to the fact that the capitalist employs the worker and organises production, but to the fact that some people have a claim to part of the social product, deriving from their 'ownership' of the means of production.

Finally, neo-classical economics is characterized by the primacy it accords to market phenomena or exchange. Given the fact that society is seen as an agglomeration of individuals whose nature is given, who do not combine together in a social production process and whose only link with each other is through the buying and selling of commodities, market phenomena must inevitably assume primary position.

Thus, neo-classical economics is characterised by subjective individualism, naturalism and the primacy it awards to exchange. The effects of neo-classical economics have been two fold : at a scientific level it has inhibited, if not entirely prevented, serious study of the capitalist mode of production and the economic law of motion of modern society and at ideological level it has provided a moral justification of the existing social order.

2.1.1.2 Unscientific Structure

The Class Essence of Bourgeois Economics

The neo-classical economics achieves its ideological impact in two distinct ways through the picture of the world given by its apparently neutral variants, and through the openly apologetic use made of certain of its findings. The apparently natural variants analyse the capitalist system as if it were inherently stable and smoothly self-regulating mechanism. Unemployment, crisis, uneven development and similar negative features of the system are regarded as deviations from 'equilibrium' or as secondary phenomena and their existence is for analytical purpose ascribed to frictions or imperfections such as monopoly or imperfect information. Quite apart from its inhibiting effect on scientific work features and deviations from equilibrium as secondary phenomena neo-classical economics assumes that they play no fundamental role in the capitalist system. It is but a short step to conclude they can be eliminated by the introduction of more competition, better information for some other piecemeal change designed to remove imperfections in an otherwise perfect mechanism.

The various categories of income in neo-classical economics, it described as rewards for various kinds of sacrifice, each of which provides a necessary contribution to production : the capitalist foregoes the consumption of his capital, receiving interest (or profit) his rewards, and finally the worker foregoes his leisure, receiving wages as his reward. Having described the situation in this way, it is but a short step to seeing the relationship between the capitalist, the landlord and the worker as an essentially harmonious one, in which each makes his distinct contribution to production, and

receives his appropriate reward. Marx expressed this very clearly in the following rather lengthy passage :

“This, moreover, render substantial service to apologetic. For the formula of land-rent, capital, interest. Labour wages, for example, different forms of surplus value and configurations of capitalist production do not confront one another as alienated forms but as heterogeneous and independent forms, merely from one another but not antagonistic”.

“The different revenues are derived from quite different sources, one from land, the second from capital and the third from labour. Thus, they do not stand in any hostile connection whatsoever. If they, nevertheless work together in production, it is a harmonious action, an expression of harmony, as for example, the peasant, the ox, the plough and the land in agriculture in the real labour process, work together harmoniously despite their dissimilarities. In so far as there is any contradiction between them, it arises merely from competition as to which of the agents get the value they have jointly created. Even if this occasionally brings them to blows, nevertheless the outcome of this competition between land, capital and labour finally shows that, although they quarrel with one another over the division, their rivalry tends to increase the value of the product to such an extent that each has a large piece, so that then competition which spurs them on, is merely the expression of their harmony”.

One notice, therefore, in this framework, a double harmony between the factors in production they compete and in distribution their competitive struggle is merely the manifestation of a deeper community of interest.

This harmony of interests is most expressed in popular versions of neo-classical economics based upon the marginal productivity theory associated with the so called aggregate production function. In this theory, it is assumed that commodities can be reduced to a common standard in such a way that, for analytical purposes, the existence of many different commodities can be ignored and, therefore, income distribution equilibrium and other features of this system can be analysed as though there existed only one homogenous commodity. The commodity appears both as an input, where it is called capital and as an output where it is called income, inputs are transferred into output by means of production function which determines the amount of output produced with given inputs of land, labour and capital.

When dealing with the questions of equilibrium and income distribution certain assumptions are usually made about the shape of the aggregate production, and the preference of individuals. The production function, for example, is assumed to exhibit constant returns to scale uniformity, diminishing marginal products with respect to three factors : land, labour and capital, provided the preferences of the participants display certain well-known properties, these assumptions will be sufficient to ensure that corresponding to each initial, endowment, specifying the

resources possessed by each individual participant there will be unique equilibrium position. In his position every factor is rewarded according to its contribution to production, which is, in turn, equal to the subjective sacrifice the owner of a factor makes when he allows his factor to be used for production rather than consumption.

It also follows from the conventional aggregate theory that in a competitive economy the working class cannot improve its collective position by organising at the economic level to raise wages, improve conditions or control the production process. According to this theory, all such organisations will cause some kind of inefficiency, in the form of either the under employment or misallocation of some factor. Even where one group of workers does improve its position by organisation, it can only be at the expense of other workers, who will be forced either to accept lower wages or worse conditions or else lose their jobs.

This does not mean that workers cannot distribute income towards themselves. What it does mean, however, is that such redistribution should be achieved through taxation, preferable lumpsum, so that marginal equalities are not disturbed. Taxes may be levied on either income or wealth.

Now, taxes cannot be changed through the economic struggle of workers against their own employers or group of employers. In this theory, therefore, workers have no real need to organise themselves at the work place level, except perhaps to help the competitive process by putting pressure on the backward employer. If they must organise, workers should do so at the political level perhaps even forming their political party to fight for their interests.

At the face of it, this view appears consistent with a militant class politics. Workers could, after all use their party to press for the most radical changes. Its real content, however, is quite the opposite. The basis of any class is the day struggle of the worker at his place of work against his employer. Only in this way, by speaking and unifying such struggles, do workers learn to act as a class. Without such a foundation working class ceases to act as a class. To extent that he remains politically active, the worker then fights, not as a member of his class, but as an individual, as a citizen. Thus, no matter how radical its slogans, the practical content of a theory which argues that all changes should be effected by means of taxation and property redistribution, is ultimately the political participation of the working class on an organisation level. In nutshell, workers must abandon class struggle and devote themselves to bourgeois politics.

It follows quite naturally that many radical exponents of marginal productivity theory who advocate a drastic redistribution of wealth and income through taxation, should at the same time be bitter opponents of trade unionism and all other kinds of working class struggle outside the traditional framework of bourgeois politics. Thus, bourgeois reformers can in one breath expose and condemn widespread poverty and unequal distribution of poverty, advocating redistribution to establish a property-

owing democracy, and in the next breath rent against the trade union movement as the fundamental cause of present economic life.

More conservative exponents of marginal theory do not even to this far. For them, in existing distribution of property, is sacrosanct, representing the reward for past efforts, workers want property, they should save. However, amongst the academic economic majority would go with the mainstream opinion that property and income should be redistributed via the means offered by the bourgeois political economy of taxation. Naturally, redistribution must not be the point where it destroys 'incentives' nor must state intervention be so drastic that it threatens individual freedom. In proving an apparent scientific basis for these views, neo-classical economist exerts a reactionary influence.

2.1.2.1 Marxian Critique of Classical Economics

Marx's theory of commodity fetishism provided specificity to his analysis. Marx's theory was situated in the historical context of the capitalist mode of production. The classical economics, in its economic analysis, lacked this historical specificity. As a result, despite the apparent similarity reflected in Marx's theory of value and the classical economics (Adam Smith and Ricardo), there was a fundamental difference. The difference in approach was himself noted by Marx while comparing theory of value with Ricardo, to most developed representative of the classical school, Marx writes

"Political Economy has indeed analysed, however, incompletely, value and its magnitude and has discovered what lies beneath these forms. But it has never once asked the question why labour represented by the value of its product and labour time by the magnitude of that value".

The achievement and the limitation of classical political economy is indicated here with extraordinary clarity. First, the achievement : The classical political economy, in spite of its incompleteness and its various inconsistencies, understood that value of commodities is determined by the labour incorporated in them, or in other words, that what appears as the value of things is in reality the human labour necessary for their production. Second, the limitation : it never posed the problem of why that content assumed this particular form, why human labour takes on the form of value of things or in short, on the basis of what historical social conditions the product of labour takes the form of commodity. The classical political economists could not see that the value form of the product of labour is not only the most abstract but is also the most universal form taken of by the production in bourgeois production. They wrongly held, instead, that the production of commodities, far from being a historical phenomenon was a self-evident necessity imposed by nature. They believed, in other words, that there could be no production in society without this production of commodities. The main consequence of this different approach is as follows : classical political fact, taking the existence of commodity as a 'natural' and

hence non problematical fact, restricts, itself to investigating the proportions in which commodities exchange for one another : concentrating their analysis on exchange value rather than value in the strict sense. Marx wrote : “the analysis of the magnitude of value almost completely absorbs the attention of Smith and Ricardo.” For Marx, on the contrary, the essential problem prior to that of exchange rates of commodities is to explain why the product of labour takes the form of the commodity, why ‘human labour’ appears as a ‘value’ of things. It was to analyse this problem that Marx attached importance to his analysis of ‘fetishism’, ‘attention’ or ‘refiction’.

Ricardo formulated a theory of tendency of the rate of the profit to fall, but he deduced it not from the laws of accumulation of capital but from his theory of differential ground rent. Diminishing returns from the soil, increasing costlines of foodstuffs and the increase in nominal wages resulting therefrom. In formulating this law, Ricardo was influenced by Malthus, especially his theory of the diminishing returns from soil. Marx deduced this law from the tendencies of capital accumulation, linking it directly to the labour theory of value, if living labour, is the sole creator of value, then this reduction in the nature of the labour (wages) in total capital, through the growth in the share of constant capital, necessarily reduces surplus labour relatively to capital.

Finally, though the classical political economists like Malthus, Sismondi, J.B. Say, Macculloh and Ricardo had from time to time touched on the periodical crisis, they had never deduced the crisis from the inherent laws of functioning of capitalist system.

Marx transcended Ricardo in three ways. Through his working out of the theory of surplus value, he made possible a comprehensive synthesis of sociology and economics and discovered the underlying law of all historical evolution, the law, which explains the class struggle. Through his working out of the theory of the equalization of the rate of profit, Marx made it possible to transform an economic system hitherto seen as essentially static into a dynamic system, the chief laws of development of which he revealed. Through his working out of a theory of the reproduction of the capital and of the national income, and through his adumbration of a theory of crisis he simultaneously achieved a first practical synthesis of micro-economic and macro-economic ideas.

2.1.2.2 Critique of Marginalism

Marginal utility theory of value which was sponsored by Cournot in the thirties (i.e. 1830’s), Dupuit in the forties and Gossen in the fifties, culminated in the British (Jevons 1871), Viennese (Menger, 1871) and Swiss (Walras, 1874) neo-classical schools.

From Ricardo to Marx, every theory of value was objective, that is, its ultimate

starting point was production : value was identified with cost of production revolved around it. The influence of demand upon value, as an independent variable, was denied; and even when it was indirectly taken into consideration, it appeared only as an indirect function of production itself, since all incomes were regarded as having been created in production. The neo-classical school, however, approached the problem in an altogether different way as it was a school of pure micro economics considering that value can and should be determined for each commodity 'taken separately'. It was declared, on the contrary, that exchange value is essentially a function of use-value, of the utility of the given commodity.

But how to measure this utility ? Resigning themselves on not being able to express use value quantitatively, the marginalists fell back on quantitative expression of the need which use-value has to meet. They laid down individual scales of needs, this is why this school has been described as being subjectivist, since its starting point is purely arbitrary, subjective. Nevertheless, the quantitative expression is not enough to overcome the difficulty. A man obviously has more need to bread and water than a diamond, yet a diamond has a higher exchange-value than that of bread. A man has even more need of air which normally possesses no exchange value. This is why the neo-classical theory states, is not the intensity of the need in itself, but the intensity of the last fragment of need not satisfied (or the marginal utility) that determines value.

Starting from this general idea, the neo-classical school worked out a series of curves, the intersection points of which are supposed to show conditions of equilibrium : curves of supply and demand determining equilibrium prices curves of indifferences and of prices, determining the quantities of commodities demanded at particular levels of income : curves of marginal costs determining for entrepreneurs the levels of production which will guarantee them the highest profits; a curve of interest rates offered and profit expected determining the value of investment, a curve of the accumulated amount of capital and of the mass of money capital available, determining the rate of interest; and so on. In the end, the whole system is in perfect static equilibrium, 'profit' itself having disappeared as Walras puts it, since under conditions of total consumption the value of the marginal "product, which determines the value of all production, is dissolved into depreciated capital, wages, interest, and ground rent.

A marginal theory in general, is thus perfected, which one writer has summed up as follows :

"Under conditions of competition, we are told, the entrepreneur increases the employment of each factor of production to the point at which marginal productivity of this factor (net product obtained, thanks to the last unit employed) is equal to the price of factor in the market and he increases his production to the point at which the marginal cost of the product (cost of the last unit) is equal to the price of product".

In a situation like this, satisfaction obtained by the consumers are at the highest because any transfer of factor of production would result in a reduction of the 'value' created by this factor. In the case of worker, for instance, he is producing in an hour, where he is working at this moment, a value equal to his wages, if he were to be transferred elsewhere he would produce a little less.

Marginalist theory is unable to explain how, from the clash of millions of different individual 'needs', there emerge not only uniform prices, but prices which remain stable over long periods, even under perfect conditions of free competition. Rather than an explanation of constants and of the basic evolution of economic life, the 'marginal' technique provides at best explanation of ephemeral short-term variations.

It is increasingly being realised among a large section of economists that the equilibrium system of the neo-classicists is totally divorced from reality. It does not take into account the particular institutional framework of capitalism, which makes quite absurd the notion that wages are determined by the product of the last unit of his time that the worker wishes to give up rather than devote it to leisure. It does not take into account the dynamic character of competition and the continual disturbances of equilibrium which it causes. It is essentially static and brings in dynamics as almost an element disturbing equilibrium whereas in reality equilibrium is only a transient movement in a spasmodic economic moment which is in ceaseless oscillation. It has no explanation to offer either for periodical crisis or for structural crisis. Carried to its logical conclusion, it even denies the phenomenon of imperialism, or more precisely denies that there is any connection between imperialism and the laws of development of capitalism.

2.1.2.3 Critique of Theories of Regulated Capitalism

The theories of regulated capitalism have originated in response to certain mutations, the capitalist economy has gone through the growth of the socialisation of production, the enlargement of enterprises, greater specialisation and a cooperation in production. The socialisation of production has grown to a point where it has to be regulated to resolve major national economic problems. This is made inevitable by the development of state monopoly capitalism, the exacerbation of the contradiction of capitalism, the growth of unemployment, greater difficulties in marketing products, and the economic competition between the capitalist economies and the block of centrally planned economies. In order to preserve their positions, bourgeois governments are compelled to deal with problems of economic growth, raising growth rates and studying the forms and methods of socialist, planning. In the past bourgeois economists denied the possibility and effectiveness of socialist planning whereas today they are attempting to utilise the method of socialist planning to regulate the capitalist economy.

All theories of regulated capitalism (planned capitalism, mixed economy) centre

around the necessity of state intervention in economic development, change to be made in national economic proportions, the correlation between accumulation and consumption and between branches of the economy and their rates of growth.

But the theories of regulated capitalism suffer from a fundamental flaw. The disproportions between different sectors of the economy which emerge as a result of the anarchic character of capitalist production cannot be removed without complete centralised planning. The introduction of complete centralised planning is possible only if private property is abolished, i.e., if capitalism is itself abolished. Therefore, attempts at regulating capitalism can at best succeed in averting short-term sectoral frictions in a capitalist economy. The fundamental cause of crisis in a capitalist economy-production for profit by individual entrepreneurs-cannot be removed by an attempt at regulating capitalism. Such a case of crisis can be removed only by removing capitalism itself.

2.1.2.4 Critique of Theories of Economic Growth

Economic growth rates and factors which influence these are the central problems of bourgeois theories of economic growth. These theories tend to analyse the condition for dynamic equilibrium and full employment and to discover the reasons for deviations from that equilibrium and full employment and to discover the reasons on the basis of optimum utilisation of various productive factors. The working out of an appropriate economic policy follows from this.

The cardinal defect in bourgeois definitions of economic growth relations consists in their consideration of economic problems exclusively from the viewpoint of quantity. They isolate the development of the productive forces from the system of social and production relations, although it is actually the nature of the relations of social production that has the decisive effect on the economic growth rates and on its socio-economic consequences. Because they ignore production relation, bourgeois economists are unable to give a scientific explanation of the difference between the production growth rate in the capitalist socialist countries or to find the reason for the uneven development of production in the countries of the low production growth rates in economically under developed countries, while ignoring the pre-capitalist forms of exploitation and the dependent character of these economies. Scientific analysis of growth rates also demands a study of the concrete socio-historical conditions in a given country and to stages in the development of the capitalist mode of production there.

Another wrong assumption of bourgeois growth theories is that economic growth leads to mitigation of social conflicts. They presume that the bigger national income, the milder the struggle for its distribution between the different classes. They also believed that the growth of production is the basis for levelling of profits. The actual process of capitalist development, however, exacerbates rather than mitigates the contradictions of capitalist. Far from levelling incomes and mitigating social conflicts,

it worsens the conditions of the workers, while increasing the profit of the capitalist, above all, of the bigger monopolies.

Bourgeois economists regard investment as the most important factor of growth. In the post-war period, the share of investment in the national income of the capitalist countries increased considerably. The increase in the volume of investment is really an important condition for the growth of production, but bourgeois economists often exaggerate its importance. An increase in capital investment is not always attended by a proportional increase in production while production may grow even when the rate of accumulation declines. This is because under capitalism investments act as a growth factor, but they also increase antagonistic contradictions. The size of production does not depend exclusively on investment but also on the level of the population, effective demand, production can also expand as a result of reduction in the idle capacity which is characteristic of the epoch of the general crisis of capitalism.

Bourgeois economists are unable to give a satisfactory explanation for the mechanism which regulates changes in the level of capital investment. Their views on this problem fall into two major groups : (1) reduction in profit slows down capital investment because of the scarcity of the available funds and lowers the incentive to invest; (2) Inadequate demand is the reason for low investment rates.

Arguments on declining monopoly profits are at variance with facts, and are meant in the final analysis to conceal its growth to justify the policy of government subsidies to the monopolies and other measures contributing to an increase in their profits.

Economists seeking the cause of low investment in inadequate demand are much nearer to the truth. This view is expressed in the works of the American economist, A. Hansen and others. Inadequate effective demand does indeed keep down the growth of this phenomenon. They believe that the low level of private demand can be recompensated by increasing government spending. This, however, leads to bigger budget deficit and to inflation, which creates new economic difficulties, without resolving the problem of demand. Thus, neither viewpoint explains the level of investment scientifically.

In considering the investment problem, bourgeois economists look only at the surface of things. They explain the interest in production by the productivity of capital and increase in its volume and effectiveness. Their narrow class world outlook prevents bourgeois economists from understanding that under capitalism the only basis for the growth of investment and expansion of production is the intensified exploitation of workers, the growth in the productivity and intensity of their labour.

The most important factor, however, is the failure of bourgeois economists to realise the fundamental contradictory process of accumulation of capital. Since growth in investments and production is the result of greater exploitation of the

working people, it naturally results in a relative lack of effective demand. Therefore, growth of capital investment leads to an increase surplus capacity becomes acute. The point is that capital investment by themselves cannot solve the marketing problem, i.e., the problem of inadequate effective demand.

Many important socio-economic factors were not reflected in the models of economic growth constructed by bourgeois economists. These included the class struggle, the factors which influence the size of capital accumulation, the value of labour power as well as the correlation between money wages and real wages, etc.

It is, of course, extremely difficult to build all these factors into mathematical economic models but this is not the only reason why they are left out by bourgeois economists. They work on the assumption that capital relations are the best, that the social and economic environment does not change, and that it may, therefore, be ignored. Such abstractions reduce the value of these models considerably and make them useless of gaining a correct picture of the real process at work in capitalist society.

2.1.2.5 Critique of the Theories of the Transformation of Capitalism

The theories of the transformation of capitalism using concepts like ‘neo-capitalism’ or ‘people’s capitalism’ include a number of postulates on the revolution in ownership, production, management, incomes and the role of the state-with the inclusion that modern capitalism differs radically from the capitalism of the 19th and early 20th centuries.

The myth about “democratisation of capital” is one of the main pillars of the theory of “neo-capitalism”. Bourgeois economists maintain that the speed of joint stock companies and the wide distribution of the share among the population means collectivisation of property that every share holder, however small, becomes a profit-making co-owner of the capital.

Joint stock companies at present are the basic forms of enterprises in the capitalist countries. This is no “evolution ownership” but only a change in the form of private capitalist ownership, individual capitalist property merely becomes collective capitalist property.

Bourgeois economists confuse different processes, concentration of capital and socialization of production, which really occur under capitalism and abolition of private capitalist ownership, which is made possible only by a social revolution. Under capitalism the form of capitalist ownership undergoes a change, the individual property of the capitalists turned into group property is by no means social property. It remains private property in content since the means of productions remain in monopoly possession of the capitalist class while the producers, the workers are deprived of the means of production and are exploited by the capitalists.

Through the system of shares of a handful of financial magnates in the capitalist

countries have the whole capital at their disposal. To be able to handle the affairs of joint stock companies, the capitalist only needs to have controlling interest, which is approximately 20 percent, and sometimes much less of the total value of shares. Shareholders cannot sit on general assemblies, therefore, large shareholders need a small number of shares to win a majority of votes. Large capitalists use stock exchange speculation to increase their capital by ruining small/middle capitalists.

In this way, instead of “collectivisation of capital” and “expansion of the range of owner capital” is in fact concentrated in the hands of handful of capitalists who reap the fruits of production, which is social in character.

The fabrication about “managerial revolution” is also linked with the speed of joint stock companies. Bourgeois economists go out of their way to prove that under the present conditions capitalists have lost their right to control the economy. The managers who have taken the function of control, are depicted as “representatives” who, it is argued, are motivated by the interests of the people and public opinion rather than by profit. Portraying joint stock companies as belonging to the people as a whole”, bourgeois theorists substitute the completely different questions of the, form of management for the problem of the form of ownership. In reality, the character of enterprises is determined by the form of ownership rather than the forms of managements.

Bourgeois economists also confuse the question of the class affiliation of managers. Actually, a special class of managers is non-existent. The lower echelons of the managerial apparatus, i.e., those directly involved in the process of material production belong to the intelligentsia and receive salaries. They are not interested with the function of taking crucial decisions on the activities of the enterprise, nor do they take part in the distribution of profits. As for managers in the top echelons, they belong to the big monopoly bourgeois. Therefore, it is utterly wrong to depict them as representatives of people. Even they, however, control the activities of enterprises only when they have controlling interest in the stock of shares; that is they are in effect capitalists.

Thus, the arguments about the “managerial revolution” are at variance with realities. The basic aim of these theories is to camouflage the rule of the financial oligarchy and the growth of its profits. Company directors receive huge income, hundreds of thousands of dollars a year. This income is one of the concrete forms of appropriation of profits by the monopolists. Bourgeois economists try to conceal this fact, depicting Company Directors as rank and file employees.

Another variant of the theory of transformed capitalism is the theory of “Welfare State” which maintains essentially that bourgeois state has taken the responsibility for providing a healthy and decent standard of living to all its citizens. And from this, it is concluded that the character of the state under capitalism has changed. But the fact is that such public spendings is merely the concession given by the

bourgeois state under the pressure of class struggle.

On the other hand, the taxes paid by people are utilised to give subsidies to capitalists and for making payments under military contracts. This is conclusively evidenced by the structure of the state budgets of capitalist countries. Their revenues consist of at least by two thirds of taxes imposed on the population. Funds from the State budget are spent primarily for payments under military contract, the maintenance of the army they need.

The affluence advertised by bourgeois economists has no relation to the bulk of the U.S. population faced with the hard realities of life, bourgeois economists have to admit the poverty of the working masses. They often bind up their arguments on a levelling of incomes by statements that the growth of national wealth has not yet led to abolition of poverty, a programme for creating a "great society" in 40-50 years, is an evidence good enough to show that affluence is not for all the USA. Here are chronic depression areas where the unemployment rate has reached 23 per cent. Welfare state, therefore, has not really brought all that welfare.

2.1.2.6 Critique of the Theories of Convergence.

These theories essentially consist in assertions that as capitalism and socialism develop, similar features grow in both systems, while their differences gradually dwindle away. The theory has various variants. Galbraith, for example, argues that technological progress is the basis for convergence. Discussing the future of the industrial system, he points to growing tendencies towards convergence seeing them in the growth of large scale production, technological advance, preservation of the autonomy of enterprises, state regulation of total demand and personal training. F. Ferrous maintains that the foundation of the growing similarity between the two systems is the use of the plan and the market by both. The American sociologist, P. Sorokin, maintains that the two systems are becoming more and more similar to each other in the fields of science and technology, social sciences, law, education, fine arts, religion, the marriage and the family, the economic system, social and the political relationship.

Different versions of the theories of convergence are based on some really existing common features of the capitalist and socialist economies. These are modern scientific and technological progress, growing socialisation of production and the resulting need for planning it, enhancement of the intelligentsia.

The points in question are the processes linked with development of technology and productive forces. Under capitalism and under socialism all of them, however, have a different socio-economic Content determined by the character of social production relations. It is precisely in this context that the scale, limits and socio-economic consequence of the current process depend. So, the scientific and technological revolution under capitalism does not resolve its contradictions nor does it remove inevitability of socialist revolution, but on the contrary, it accelerates

the emergence of material pre-requisites for its implementation. Equally, the growth of production under capitalism makes centralized planning of the entire economy increasingly indispensable. Capitalist ownership, however, precludes planning in the interest of society as a whole. Consequently, any gradual convergence of two world economic systems, and their interpenetration are out of question.

The cardinal defect of the theories of convergence just as of all other theories on similarity between the two systems, is being founded on a formal approach and outward signs, ignoring the fundamental difference between them. In fact, technological progress and the growth of common features in the forms of production, organisation and management do not remove this fundamental difference, but make it still greater.

**NATURE & PROCESS OF CAPITALIST DEVELOPMENT :
SCHUMPETER'S FORMULATION**

Schumpeter's analysis of economic development came at a time when there was a lack of interest in the subject. Throughout the period of 1870-1930, the major part of the theoretical work was devoted to micro economic analysis. It was broadly concentrated on the efficient allocation of resources. Alfred Marshall, the leading economist of the time devoted little space to the question of economic development. If judged by contemporary thinking of his time; his analysis bears the stamp of originality.

2.2.1 Framework of Analysis**2.2.1.1 Circular Flow**

Schumpeter starts his analysis of development of capitalism from the concept of circular flow. "Economic life from the standpoint of a circular flow is running in its channels essentially the same, year after year, similar to the circulation of the blood in an animal organism." This circular flow and its channels do alter in the course of time. But it does so continuously, step by step, which can be smaller than any assignable quantity. Such changes in economic life also experience other developments which are not continuous and alter the traditional course itself.

The circular flow describes economic life from the stand-point of the economic system's tendency towards an equilibrium position. This does not mean that year after year the same things happen. It only means that we conceive the several processes in the economic system as partial phenomenon of the tendency towards an equilibrium position but not necessarily towards the same one. The position of the ideal state of equilibrium position is never attained continuously as circumstances, events or facts change. Changes which are non-social like the natural conditions and non-economic, such as effects of war, changes in commercial, social, economic, polity or consumer tastes, require no new analysis. The slow and continuous increase in national productive resources and of savings is obviously an important factor in explaining the course of history through centuries.

In the circular flow, changes which occur continuously in the long period are incorporated. The growth of population and wealth or investment with term implications take place in this situation. Such changes, quantitative in nature, call for no qualitatively new phenomena, but only process of adaptation of the same kind

with change in the natural data. These changes do not change the course of channel's flow, though scale of the flow may be enlarged. The analysis of circular flow helps us to understand the change which alter the course of economic life. The changes are not only quantitative in nature but are qualitatively different. These changes cannot be understood within the static analysis on traditional equilibrium position. Schumpeter's theory of economic development deals with this. This is because especially in capitalist epoch economic changes have not occurred continuously but they are discontinuous and qualitative. Development in this mode, is not forced from outside but is from the internal initiative from within Capitalism."

Schumpeter defined "capitalist development a distinct phenomenon, entirely foreign to what may be observed in the circular flow in the tendency towards equilibrium. It is spontaneous and discontinuous changes in the channels flow, disturbance of equilibrium which forever alters and displaces the equilibrium state previously existing."

2.2.2 Frame factors in Development:

2.2.2.1 Innovation and Innovators

His theory of development is a treatment of this phenomenon and process which bring it. Schumpeter believes that the spontaneous and discontinuous changes in the channel of the circular flow and equilibrium position occurs in the sphere of industrial and commercial life and not in the sphere of the wants of the consumer and final demand. Such changes largely occur in production. It is the producer who as a rule initiates economic changes and consumers are educated by him, if necessary. Development in his analysis is a combined result of innovators and credit.

To produce means to combine material forces and to produce other things of the same thing by a different method means to combine these materials and forces differently. This is called new combination. Many times new combinations grow out of the old by continuous adjustment in small steps, there is certainly changes possibly the growth. In so far this is not the case the new combinations appears discontinuously, then the phenomenon characterising development emerges. Thus development in Schumpeter's sense involves carrying out of new combination, i.e innovations. This concept covers the following five cases :

- (1) The introduction of new goods, that is, the one with which consumers are not familiar or of a new quality of good;
- (2) The introduction of a new method of production, that is, not yet tested by experience in the branch of manufacture;
- (3) Opening of a new market, that is, market into which the particular branch of manufacture of the country has not previously entered;
- (4) The conquest of a new source of supply of raw materials or half manufactured goods;

- (5) The carrying out of new organisation of any industry like creation of a monopoly position or breaking of monopoly position.

Schumpeter makes distinction between innovation and invention for the following reasons :

(a) Every invention implies scientific novelty but it is entirely immaterial for an innovation; (b) not all inventions but those which have been integrated in the economy are called innovations; (c) the making of the inventions and the carrying out of the corresponding innovations are, economically two entirely different things.

Command over means of production is one distinct problem for the established firm which works within the circular flow. But in that case once the process is set in motion the mechanism works automatically. The carrying out of new combinations sometimes impose temporary sacrifice; privatisation or increased efforts by members of the community.

Under the conditions of competitive capitalist economy the problems of procuring means of production does not exist if those who carry out new combinations have the necessary productive means or can get them in exchange for any other property which they possess. This is the privilege of disposable property and not merely of property. The possession of disposable property which is employable makes possible carrying out of new combinations. In this case, this is not available, then the priority on desirous of carrying out of new combination must resort to credit. To provide this credit is clearly the function of those individuals to whom Schumpeter called capitalists. It is characteristic method of the capitalist types of society that, it force the economic system into new channels, for putting its means at the service of new ends in contrast of the methods of a non-exchange economy. The availability of credit in a capitalist society plans a significant role in introducing new combinations in Schumpeter's scheme of things. In emphasising its role, he states that the structure of modern industry could have been created without, that it makes the individual to a certain extent independent of inherited possessions, that talent in economic life sides to success on its debts, even the most conservative orthodoxy of theorists cannot well deny."

Schumpeter does not establish a connection between credit and carrying out of new combinations. He points out historically that credit is primarily necessary to carry out new combinations. The credit need not necessarily come from the savings of the past. Banking system can play its role. Banks can create purchasing power through issue of bank notes and consequential increase in credit creation by banking system. Bank credit is the course by which new combinations are often financed.

Besides the new combinations and credit, the third element central to the analysis is the entrepreneur. Of all the three, the third is described as the fundamental phenomenon of economic development. For carrying out of the new combinations, the individuals, i.e., entrepreneurs are required. The concept of entrepreneur is used in a broader sense. It includes all who actually fulfil the function of carrying of new combinations. It is not necessary that he should be permanently connected with an individual firm. Many financiers and promoters qualify to be an entrepreneur. It does not include all heads of firms or managers or industrialists who operate an established

business but only those who actually perform that functions. The definition of entrepreneur distinguishes between entrepreneur and the capitalist.

Entrepreneur has the following three characteristics :

1. Initiative to do and get the things done.
2. Capacity to take risk.
3. Urge to establish private business.

Entrepreneurial leadership consists in fulfilling a very special task which may rarely catch imagination of the public at large. For its success, it is essential that he seizes the immediate chance for his personal interests. Schumpeter glorifies entrepreneur in his functional aspects because of his ability to :

- (a) appreciate the possibilities of innovation;
- (b) overcome the socio-psychological barriers against doing new things;
- (c) lead production in the new channels;
- (d) persuade the banker to finance him;
- (e) draw other producers in his branch after him; and
- (f) create an environment conducive to the satisfaction of wants as the normal motive.

The entrepreneur plays this glorious role because of his precarious economic position, both as an individual and as a group. The fact that this economic success hits socially as he has no cultural tradition or attitude to fall back upon, but moves about in society as an upstart, whose ways are readily laughed at. He is compelled to innovate or eliminate because of forces of competition.

2.2.3 Cyclical Process of Capitalist's Development

The Schumpeter's business cycle is the process of capitalist era. In his analysis as capitalist economy experiences development which is spontaneous and alters for ever the course of economic activities, it brings along with the system disturbances which are inherent in the system.

2.2.3.1 First Approximation

The equilibrium of circular flow is disturbed by introduction of an innovation. The motivation of innovation of the entrepreneur, an innovator, is supplied by the prospect for profit. It is financed by bank credit. With it new construction and equipment come into existence. There is favourable climate for profit and with it for interest. With the newly created purchasing power, the innovator diverts the production services from the present uses, i.e., consumer goods industries. Consequently, producer goods increase in proportion. As the first entrepreneur overcomes a preliminary difficulties and makes his project successful, he opens the field for others. This wave like

opportunity of entrepreneur exhaust the opportunity for gain. The cumulative effect of this economic process is the creation of a disequilibrium. For some firms innovation creates a new economic space and for others it means death, contradiction and drift. In the wake of the disequilibrium the old cost and price structures are of no help and thus the difficulty of planning increases for the entrepreneur. Thus, innovations create a two phase cycle of prosperity and recession, followed by a new disequilibrium which sets into motion a fresh round of production. In a new situation, total output of the system is greater and has also different composition. This is working of the pure model and referred to as first approximation, and is based on the following assumptions :

1. Perfect competitive capitalist system;
2. A state of perfect equilibrium in which there is no savings and the population is constant.
3. Absence of speculative activities.

2.2.3.2 Secondary Wave : Second Approximation

This is the result of introduction of the following elements in the first pattern , (a) Secondary wave (b) five additional phenomena; (i) successive fluctuations (ii) growth of population (iii) the spreading of credit creation, (iv) induced investment and (v) imperfection of competition and equilibrium. Here Schumpeter conceives a four phase cycle, consisting of prosperity, recession, depression and revival. These four phases are distinct and can be explained in terms of different forces which create them. Recession is explained by model, i.e., first approximation and revival is largely explained by secondary factors. As soon as innovations are successfully completed in new plan and equipment, consumer spending will increase as quicker as that produces. Completion of this business situations is described as prosperity.

Many firms will follow the innovating firms and will try to increase output and many of them will speculate. This will act on the assumption that prosperity will last for a long time. The volume of new borrowing still increase and credit will be created for financing general expansion. Errors in judgement and excesses of optimism and pessimism assume very important role in the secondary wave. New production comes in market with fall in prices. This will result in break up of many old firms. Besides liquidation of old firms which have become obsolete beyond the possibility of adaptation; most of the firms are involved in a painful process of readjustment. Various spiral will begin to operate and prices will fall cumulatively. Credit will squeeze and deposits will shrink. Pessimism may develop around and lead to abnormal liquidation. The system will enter a new phase which is termed as depression.

But depression no longer continues indefinitely. Forces will be generated to end it. The unfavourable events which cause depression will lose their momentum as their effects spread. Individual reduction in output breed all round reduction in output but the impact of each of them slackens and stops after having gone certain

ways. This will increase opportunities for some firms and will induce expansion. This will act against the revenges of spiral. The system will lead towards equilibrium point.

2.2.3.3 Third Approximation

The primary and secondary models are based on the assumption of single sequence of cycles, each of which is of the same type as all its predecessors and successors. He conceives a three cycle scheme for explaining the movements of the capitalist system. He mentions three reasons for this : First, the period of gestation and absorption of effects by the economy will differ from innovation to innovation. Secondly, successive cyclical units are independent of one another though not completely independent. When innovation is carried out in field, next wave is likely to start in the same way in the neighboring field. He cites the examples of railroadization, electrification and motorization. Thirdly, sequence of cycle may be the result of process which have also effects other than those which show in the cycles themselves. The Industrial Revolution may be cited as the classical example of this. This may be termed as the long wave. This cannot be linked to a particular types of innovations but it is the result of all industrial and commercial processes of that took place under capitalism. Therefore, according to Schumpeter, a number of simultaneous waves superimposed on each other are found in real life. He classifies cycle in the following three categories :

- (1) Long waves of 50-60 years
- (2) Medium cycles of 8-9 years
- (3) Short cycles of about 40 months

Schumpeter establishes a close connection between the three orders of the cycle and ultimately with capitalist evolution. For him both development and business cycles are caused by innovation, so Capitalist development is accompanied by cyclical fluctuations in the economy. Business cycles are very much in the nature of capitalist development.

2.2.4.1 The Process (Forces) of End (decline) of Capitalism

The same process which leads to development of capitalism causes its destruction. Schumpeter regards capitalist system as a transitory phase in the evolution of society. Capitalist development is accompanied by recurring crisis.

Both crisis and development in the system are caused by innovations. He calls innovation as creative destruction, as it destroys the old structure and creates a new one. He visualises a break down of Capitalism because of internal development. A situation is created in which it cannot function. He points out emergence of Socialism as its heir apparent. The conditions for destruction of Capitalism as a system are created within itself. Its dynamism of development cuts its own roots. It strikes at the institution of private property. It is the private economic activity which provides urge and meaning

to the activity of entrepreneur. Capitalist development destroys this institution. It creates "dematerialized, defunctionalized and absentee ownership." This does not call forth allegiances as the vital form of property did. Eventually no body is left who really comes to stand for it.

Property interested is replaced by shares of different types. Capitalist develops on the basis of small private capitalist producers and competition. Freedom of contract provides it added stimulus. It has destroyed both small producers and competition. This had led to growth of monopoly. Under changed conditions, entrepreneurs are replaced by salaried managers with employees attitude towards life.

Innovations become a routine affair. Entrepreneur becomes functionless. His place is taken by salaried executive, managers. With this capitalism does away with a category of people who lead means of production into new channels. These persons never cared for means to rise and gain economic success. They suffered from no inhibition and never looked back. Capitalism destroys this category by eliminating its functions.

Capitalism also destroys its protective strata. Monarchical states protected capitalism in past. But they become controlled by business interests who do not have the capacity to rule. While destroying feudalism it transformed nobility, religious and other social institutions are disappearing. In some countries such as U.S.A. it never gave a chance to these institutions to develop. In the absence of protective political strata its position becomes quite vulnerable. Its own weapons are used against it. Originally, it was responsible for development of a critical and rational attitude against King and Popes. This attitude is now directed against Capitalism.

The functioning of Capitalism creates many problems. In the short run, it is profit and inefficiency which dominate the scene. Its prospects no longer remain pleasing to unemployed and the ambition of politicians. There are daily troubles, the frictions, disappointments and unpleasant events. Finally, the co-existence of affluence and poverty is so apparent that no rational being can have an emotional attachment of Capitalism.

In the environment of growing history; intellectuals play an important role. On account of unemployment and unsatisfactory service conditions the intellectuals feel increasingly dissatisfied. Therefore, it is in their interest to work up and organise resentment and lead protest movements. Their task becomes easy because of growth of means of communication such as press and radio which capitalism has created. But intellectuals themselves cannot change the system. They find a class of people ready waiting for them, the working class. The working class itself is the product of capitalism. This class increasingly grow hostile to capitalist interests. Intellectuals find it easy to lead labour movements. In face of destruction of protective political strata and social institutions which protect capitalism in the past, the labour movement led by intellectuals finally creates conditions for another system, i.e. Socialism, to replace it.

2.2.5.1 (Marxian) Critique

Schumpeter emphasised on historical method of analysis. He concludes that describing the economic process remains economic history even where the true cause is largely non-economic. His analytical apparatus is based on successive approximations. His analysis of capitalist development brings him closer to Marx's analysis of Capitalism. His conclusions are similar to that of Marx. Like Marx, he regards Capitalism transitory in character and its development is characterised by economic crisis and in the ultimate analysis, it will be replaced by socialism. He has accepted, in preface to Japanese edition of his book, *The Theory of Economic Development*, dominated influence of Walras and Marx on his intellectual development. But this system of analysis can be described as akin to Marxian social science, but not Marxism as a whole. Therefore, it is useful to indulge in critique of his analysis from Marxian viewpoint.

In the theory of capitalist development, Schumpeter assigns central role to innovators who carry out innovations which alter the course of economic activities. Introduction of innovations cause accumulation of capital financed largely by credit creations. Unlike Marx, he is unable to establish between accumulation of capital and production of surplus value. In Schumpeter's analysis capital accumulation can take place through merely credit creation by banks. In the Marxian analysis, the surplus value is created in the production process. Therefore, the source of accumulations by transfer of resources, i.e., surplus value. Banks cannot be the sole source of accumulation. Schumpeter's analysis is unable to explain properly the accumulation of capital.

In his analysis accumulation follows innovation. But in Marxian analysis, in the capitalist process technical progress accompanies accumulation. Capitalist, whose historical role is to accumulate more and more, the motive to maximise rate of surplus value, introduce new methods of production. Both accumulation and introduction of new technology is done by the capitalist. Schumpeter is unable to appreciate the role of forces of production in general in the capitalist expansion.

In analysing the crisis of Capitalism, Schumpeter views innovation and unbalanced production in the consumer goods industries as causes of crisis. He does not look at the crisis in the context of capitalist's desire to earn higher profits and survive the war for existence. In fact, the root cause of the crisis of Capitalism is that of profitability as explained by Marx. Schumpeter's failure to look at crisis from this angle does not make it necessary to go to the basic contradiction of Capitalism. This is the contradiction of capital with labour. Leo Huberman has put it very sharply as follows :

“To obtain profits, the capitalist must pay as little as possible to his workers.

To sell his products, the capitalist must pay as much as possible to his workers.”
He can't do both, insoluble contradiction and capitalism must have depression.

To destruction of Capitalism Schumpeter leaves largely to dynamism of Capitalism. Wherever it is left to conscious will of man, he left it to intellectuals in the society. He assigns peripheral role to class struggle. To Marx, class struggle is the prime move of the history. Capitalism cannot be dethroned without the revolutionary class struggle of working class. In Marxian analysis working class leads rather than being led by intellectuals. Intellectuals must acquire working class outlook before they can lead this class.

Schumpeter lived in the age of monopoly Capitalism. Though Lenin and other Marxists had developed the analysis of monopoly capitalism before Schumpeter published his *The Theory of Economic Development*, yet his analysis essentially remains within the framework of competitive capitalism. Schumpeter had seen the development within the framework to competitive capitalism. He had also seen the development of those countries in which capitalism developed at a last stage. In those countries, its development is linked with the active role of a government.

Because of several limitations of his analysis, Schumpeter is unable to develop a systematic critique of Capitalism. His indictment of the system is not very rigorous.

**TRANSITION (FROM TRADITIONAL) TO MODERN CAPITALISM
ECONOMY : ROSTOW'S FORMULATION**

Using essentially a historical methodology, Rostow attempts to develop a broad picture of the development process from the earliest "traditional society" to most advanced, the "high mass consumption" economy. He postulates and describes five distinct stages of economic development and attempts to account for the forces inherent in each stage that provided for transition to the next. He attempts to provide an alternative to the Marxian classification of history. This is the reason that his book is entitled as, *The State of Economic Growth : A Non-Communist Manifesto*. At an abstract level, process of development has been discussed by Rostow in an another book titled as, *The Process of Economic Growth*. The significance of his analysis lies in the fact that use his concepts received much publicity and attention in academic world.

2.3.1 Dynamic Theory of Production : Analysis of Process of Growth

Rostow isolates those factors which have determined two characteristics of process of growth in the Western world over roughly the past century and a half, namely, the

- (a) regular recurrence of business and
- (b) the alternating sequence of secular trend.

Economic decisions which determine the rate of growth and productivity of working forces and capital should not be regarded as governed by strictly economic motives of human beings. They need not be motivated by economic needs.

To explain the process of growth, a linkage between economist, sociologist, anthropologist, psychologist, and historian is sought which consists in six propensities:

- (1) Propensity to develop fundamental science (Physical and Social)
- (2) Propensity to apply science to economic ends.
- (3) Propensity to accept innovations.
- (4) Propensity to seek material advance.
- (5) Propensity to consume.
- (6) Propensity to have children.

The reflect effective response of society to its environment, at any period of time, acting through its existing institutions and living social groups.

Political process and political institutions are one of the possible means by which the propensities effective in a society have their consequences for the economy.

Societies are thoroughly interesting in economic, social and political processes since propensities reflect the value of a society, as effectively operative through its social and political institutions; the analysis of changes in the propensity requires, strictly speaking, a general dynamic theory of social changes.

2.3.2 Propensities of the Decision on which growth depends

- (A) Related to changes in the size of productivity of the working force;
1. The (prior) birth rate.
 2. The (prior and current) death rate.
 3. The role of women and children in working force.
 4. The skill of the working force.
 5. The degree of effort put forward by the working force.
- (B) Related to current size and productivity of capital stock
1. The yield from additions to the capital stock (including natural resources, mental and applied science, organisational techniques, etc.)
 2. The (prior) value of the resource devoted to the pursuit of Fundamental Society.
 3. The (prior) value of resources devoted to the pursuit of Applied Science.
 4. The proportion of flow (and pool) of potential innovations accepted.
 5. The volume of resource allocated to current investment.
 6. Appropriateness of the desired level of consumption of relation to 5 above.

Short run fluctuations in the yield are regarded as dependent on deviation of actual capacity of sectors in economy from the capacity appropriate to the rate of growth of economy, given the tastes, potentialities for innovation, with the strength of the propensities.

Allocation of the resources of fundamental and applied science can be considered sectoral aspects of whole process of investment. While structure is capable of generalisation which absorb first, second, third propensities and sectoral aspect of the fourth.

Investment is determined by the interplay in the capital market between profitability curve (or curves) exhibiting rate of return over cost of those investment

projects actually brought forward, given the propensity to accept innovations and finance supply curve (or curves) exhibiting the disposition of those resources not consumed, as among objectives to which are attached, differing degrees of profit and risk.

Quality of enterprises is brought to the centre of economic analysis, as short-run determines the level of investment.

Given the full employment and social framework of society relative rate of expansion and proportion of total capital invested in various sectors would vary with the, increase in real income and with changes in tastes.

If we rule out the discovery of natural resources which increase productivity and innovation then diminishing rate of return will slow down the rate of growth of economy.

Changes in rate of growth occur not only from changes in yield of resources but also because of change in the social or political frameworks, here exhibited through the propensities.

If we assume the first three propensities operate (to develop fundamental science, to apply science, and to accept innovation) then composition of innovations depend on the relative necessity.

The acceptance of principle of necessity as the mother of inventions means composition and flow of innovations at any given time may be broadly related to clear (prior) economic incentive.

Stimulus to innovation may arise not from inelasticity of supply or diminishing returns in a sector of economy, but also from the desire to erode the consequences for profit or rent of an elastic supply and increasing returns.

Thus, the analysis differs from conventional analysis mainly in two respects (1) composition of innovations is regarded as determined by working of the system and is not given arbitrarily from outside the system; (2) the system provides, from the beginning, that the account be taken of the forces which, over all or in various sectors of economy, may tempter profit maximisation decisions with non-economic objectives as reflected in propensities.

At this stage, emerges a view of history which is in direct conflict with Schumpeter's treatment of innovations. In Rostow's view :

- (1) Innovations are best regarded as induced phenomenon, taking the form of a continuing flow of possibilities and represents one form of the investment by a society.
- (2) That the form which investment takes (including the so-called autonomous investment) are related directly to the pressure of growth against resources.

Investment emerges as a race between diminishing returns, flow of innovational

possibilities and two fundamentally sociological characteristics of society-namely, its response to opportunities for profits, and extent of which it is prepared to accept and apply innovational possibilities offered.

Arguments can be summarised in the following five propositions -

1. Level of output of an economy, at any time, is a function of the size of its working population and stock of capital (including stock of knowledge).
2. Rate of growth of an economy is a function of the rate of change in the stocks.
3. Rate of change in these stocks may be regarded as resulting from operation of some propensities to develop science, to apply science to economic ends, to accept innovations, to seek material advance, to consume, and have children. These propensities operate through the existing economic, social and political institutions.
4. Effective strength of propensities depends on economic, social and political forces which determine the current social fabric, institutions and effective political policy of the society.
5. Propensities (controlled by complex of institutions) may have tendency (built it) to follow an approximation of growth curve, stagnation or decline.

2.3.3

STAGES OF GROWTH

W.W. Rostow divides development of society into five distinct stages of growth. It is an attempt to generalise the development of society through distinct stages. These stages are descriptive categories which are rooted in certain dynamic proposition; about supply, demand and pattern of production. This we have explained above, under the headings of dynamic theory of production. Rostow has explained this in detail, in his book, *The Process of Economic Growth*. The five stages of growth are :

- I. The Traditional Society.
- II. The Pre-conditions for Take Off.
- III. The Take-off.
- IV. The Derive to Maturity
- V. The Age of High Mass Consumption.

2.3.3.1 The Traditional Society

It is a stage of society whose structure is developed within limited production function. It is based on Pre-Newtonian science and technology and on pre-Newtonian attitude towards the physical world. Here Newton is symbolic and expresses the

watershed in history when came to believe that external world was subject to a few knowable laws systematically, capable of productive manipulation.

The concept of traditional society is not static and it would not exclude increase in output. The story of traditional society is of endless change reflected in the scale and patterns of trade, the level of agricultural output and productivity, the scale of manufacturers, fluctuations in the population and real income. Acreage could be expanded, some adhoc innovations could be introduced in trade, industry and agriculture. Productivity could be increased with improvements in irrigation methods.

But virtually, a ceiling on the level of attainable output per head. This is because potentials of modern science and technology were either not or not regularly and systematically applied.

Apart from the limited economic changes, society also experience social and Political disturbances on account of capture of power.

Because of limited productivity due to inaccessibility of modern science and technology in agriculture, the societies had to devote a very high proportion of resources of agriculture.

These societies had hierarchical social structure based on agriculture. There was a scope but very narrow for vertically upliftment. Family can play an important role in social organisation. Value system of these societies was geared to long run fatalism. There was strong attachment to land.

There existed centralised political rule. The political power was centralized among the feudal lords. Pre-Newtonian dynasties of China and middle Europe are included in this.

2.3.3.2 The Pre-conditions for Take Off

This stage embraces societies in the process of transition. It makes to transform a traditional society in the way necessary for it to exploit the fruits of, modern science to fend off diminishing returns. Pre-conditions for take off were created in Western Europe in late seventeenth and early eighteenth century.

The pre-conditions were created not indigenously but from the external instruction by more advanced societies. These invasions, literal or figurative, shocked the traditional society and began or hastened its undoings. They also set in motion, ideas and sentiments which initiated the process of change, a modern alternative to traditional society. This created innovations in a traditional society.

This gave birth to nationalism and movements based on it. This created centralised national states.

There is a general case which is applicable to almost all economies such as U.S.A., Australia and Newzealand. These were never caught in the structure of traditional societies. But if looked at very minute level it comes to be the same thing.

There is not much difference between the two. Born free countries were corollary of the Western Europe. In case of Latin America, the Europeans had to compromise with traditional culture which proved mixed blessing.

The nature of transition depends on the type of traditional society. It has many dimensions. A society dominated by agriculture must shift to predominance of industry, communication, trade and services based on self-sufficient economy must orient itself towards commercialization. Transition involves change in attitude towards life. Men must be valued in the society not according to caste, clan or class but for their individual value and worth. The conception gets built in the mind of masses that outside world can be manipulated in the way that progress becomes possible. They acquire scientific outlook towards life.

The income above minimum needs will be shifted from those who own land to those who spend it on roads, schools, factories rather than on country houses, personal ornaments and temples.

2.3.4

ANALYSIS OF TRANSITION

Modern economists link change not in terms of complexity of whole society but in terms of higher rate of investment and accumulation. For this some individuals must manipulate and apply and in a closed system must create modern science and useful cost reducing innovations.

Some must be able to undergo the strain and risks of leadership in bringing flow of investment into the capital stock. Some men must be prepared to lend money to the innovators for long and short period* of time. Population at large must be prepared to accept training and operate system subject to regulate change. This require shift in effective attitude rather than merely change, in attitude, because what is involved here is not some vague change to psychological or sociological orientation but a change translated into working institutions and producers. The change is established by relative examination of political, social and economic performance in response to profit possibilities.

Having briefly an insight into the process of investment, the essence of the transition can be described legitimately as a rise in the rate of investment. Rise in the rate of investment as a manifestation of profound social change is also a consequence of developments in particular sectors. For, growth analysis we require disaggregation of economy. In early growth, agriculture and extractive industries play important role. Early growth process depends on food supply. Transition is to apply quick yielding changes in productivity to accessible and naturally productive resources.

Industrialization requires large amount of funds to finance investments in industry, social and economic overheads. This is provided by increased productivity in the primary sector. It also supplies food to rural as well as urban population and financial imports

for building fixed capital.

Major proportion of investment goes in social overheads, e.g., building of infrastructure. There are two characteristics of its long gestation period, it is lumpy profit from its turn to community as a whole given these characteristics, government plays very important role in building social over heads. Even in U.S.A, Government played very important role in 1810-40 in building such over heads.

Thus, industrialisation requires revolutionary changes to be brought about into non-industrial sectors-agriculture and social overhead capital mostly in transport and education. New elites, new leadership, emerges in the process. The Protestant ethics by no means represents a set of values uniquely suitable for modernization, but it is essential members of new elite regard modernization as a possible task and judge it to be ethically good. Sociologically new elite supercede in social and political authority of the old landed elite.

Horizon of expectation must rise. People, urban as well as rural, must become prepared for life of change and specialized function. With change in social and institutional factors, the politics also changes and is motive force in transition. Feeling of nationalism starts dominating. In colonies those conditions were create by colonial power. Effective power that won with an ability to use modern technology brought such changes. They built social overhead and developed agriculture Ultimately, there was resentment against colonial rule which led either to local coalition government or military take-over and established national states. They struggled against anyone who stood against these objectives. Once national state is established, different elements in coalition government press to mobilize the newly triumphant nationalists political sentiments indifferent. There was two distinct phases of this :

- (1) In the first phase, coalition wanted to have fruits of modernization but it was weighted with attitude from traditional past.
- (2) Finally, they came to be dominated by those who were not merely anxious to have national independence but also were prepared to create modern urban society. The coming of this phase marked the creation of conditions for take-off stage.

III. The Take-Off Stage

This is most important stage in the development of society. In this stage, the society emerges from pre-conditions to take-off to the stage of self sustained growth. It is produced by a sharp stimulus such as war or political revolution, which directly affects balance of social power, effective values, the character of economic institutions, the distribution of Income, the pattern of investment outlays and proportion of potential innovations actually applied. It may also be technological innovations or favourable international market or environment. For take-off stage, only a stimulus is required for

the prior development of society. This stage implies not once for all change in production function but higher proportion of innovation accepted. It is a decisive transition in the history of society. Following are the conditions of this stage:

1. Rise in the rate of investment from say 5 per cent or less to 10 percent or more of the net national product.
2. Development of one or more substantial manufacturing sectors with a high rate of growth.
3. Existence or quick emergence of political, social and institutional framework which exploits the impulses to expansion in the modern sector and the potential extent economy effects of the take-off and give growth to an on going character.

Third implies capability of economy to mobilize capital from domestic sources.

Definition is designed to isolate the early stage when industrialization takes hold rather than a latter stage when industrialization becomes massive and statistically more impressive phenomenon.

We are not only to see how a rise in the rate of investment is brought about from demand and supply perspective but how rapidly growing manufacturing sectors emerged and imparted their primary growth impulses to the economy.

The rate of investment and productivity can rise and its influence can be diffused into a self-enforcing growth process by many different Technical and economic routines under different social, political and cultural settings driven along by a wide variety of human motivations. It is explained below that how different variables move in take-off stages.

Rise in the rate of investment is made possible by increased availability of loanable funds. There are two sources of it. First, internal supply of funds increases due to change in distribution of income in favour of production class; there have been elimination of classes using funds for unproductive uses. In some cases government also mobilises resources from such productive uses. Mild doses of inflation are useful in this situation. Bank and capital markets actively help to shift income flow and funds. Increased profits are also ploughed back in production. Secondly, capital can be imported. U.S.A., Russia, Sweden, Canada, received foreign aid during their take-off period. Increased availability of investment is used by entrepreneur for industrialisation. Entrepreneur ploughs back substantial profit.

In countries which are inhabited by people from western Europe, the problem of skill was not there. In these countries problem of take-off was mainly economic. But in other countries development of entrepreneurship was a more searching social process. Business communities, money lenders and civil servants played an important role in this context.

Overall growth rate has been the product of growth in different sectors. There has been three types of sectors :

1. Primary growth sectors, where possibilities for innovation yield a high rate of growth and set in motion expansionary forces elsewhere.
2. Supplementary growth sectors, where growth occurs in responses to or as a requirement of advance in primary sector.
3. Derived growth sectors, where growth occurs in relation to growth of total real income, population, industrial production and other variables.

Whereas growth of primary and supplementary sector is related to change in the cost-supply environment, these changes in demand, environment are essentially linked to derived growth sectors. There are following four requirements for development of the leading sectors :

- (a) Enlarged effective demand;
- (b) Introduction of new production functions and expansion of capacity;
- (c) Society must be capable of generating capital initially required;
- (d) Leading sector must be such that their expansion and technical transformation in a due chain to requirements for increased capacity and potential for new production functions in other sectors.

IV. The Derive to Maturity

After take-off there follows what might be called the derive to maturity. It is a stage when a society has effectively applied the range of modern technology to the bulk of its resources.

In terms of sectoral development, industrial process is differentiated with new leading sectors gathering momentum to supplant the older leading sector take-off where pace of expansion is slowed. After the railways take-off in the third quarter of the 19th century, coal, iron and heavy engineering came at the centre of growth process and then it is steel, the new ships, chemical, electricity and the products of the modern machines that came to dominate the economy and sustain the overall growth rate. The leading sectors in the derive to maturity will be determined not merely by the pool of technology but also by the nature of resource endowments. It may be shaped to a degree by the policies of government.

There are some problems of defining this stage in terms of technological maturity. Was France, on the eve of First World War, be regarded as technologically mature, despite its large but technologically backward peasantry and its tendency to export large amount of capital ? Similarly, regional differences (backward pockets in the development regions) create problems as was case with U.S.A. in 1900. It is for this reason that technological definition of maturity must be applied to a whole national

society. The case of Japan was peculiar in 1940. Labour intensive agriculture was accompanied by extraordinary refinement in use of water and fertilizers.

As the societies move to technological maturity, the structure and quality of the working force change. Proportion of the population in agricultural and rural, life decreases and within the urban population the proportions of semi-skilled and white collar workers, higher trained technicians and professionals increase. The working force organise itself in the labour market and perceives the industrial civilization that can offer levels and types of consumption which were not considered realistic in the past. The rise in the real income per head make these new tastes effective. The work force began to realise that it can be effective in influencing political process and make the government increasingly providing measures of social and economic security. In short, the process of moving to maturity lays the basis for the kind of politics and social pressures that led to long succession of human modification.

The character of leadership in industry changes. In the derive to maturity men take over with a more acute sense of scale and of power. The professional manager becomes more important and transcend the application of modern technology to resources. Entrepreneurs become efficient professional managers of highly bureacratished and differentiated machine.

The society as a whole get bored with miracles of industrialisation. There takes place wider shifts in the mood of the society. Intellectuals and politicians become mature articulate and react against the harshness and social costs of the maturity. Industrialisation ceases to be acceptable as an over riding goal. People place lower valuation on further increment to abundance and seek new sources of satisfaction.

V. The Age of High Mass Consumption

When technical maturity is reached men take it for granted that they are born in a well advanced industrial society. Their minds are turned increasingly to consider the ends to which the mature economy might be put. End use of material resources get prominence. Balance of attention of society gets shifted from supply to demand, from production to consumption and welfare in the widest sense it approaches beyond the maturity.

There are three directions in which the mature economy could be turned once the society ceased to accept the extension of modern technology as primary objective. These are :

1. National pursuits to increase influence become important. This results in increased allocation of resources to military and foreign policy with the purpose of increasing direct and indirect control of foreign countries.

2. Second, direction of use of resources is towards welfare state. Even state power is used for this purpose. Progressive tax system is introduced and government expenditure is directed towards achieving social objectives.

3. Private consumption on mass basis acquires greater significance. This is beyond the basic food, shelter and clothing into range of durable consumer goods and services which mature economies to twentieth century can provide.

A good deal of the history of the first half of the twentieth century can be explained in terms of the pattern and succession of choices made by various mature societies among these three alternatives. In some countries this brought in new leading sector such as housing, automobiles, petroleum, electric powered household devices had also led to vast commitments to build new social overhead capital and commercial centres. But in others, greater expenditure on rearmament and war postponed other private consumption durable goods on a mass basis.

ROSTOW'S VIEWS ON MARXIAN THEORY OF SOCIAL DEVELOPMENT

Rostow gives his five stages : traditional society, the pre-conditions for takeoff, the take-off the derive to maturity and the high mass consumption, against the Marx's five social formations : slavery, feudalism, capitalism, socialism and communism. Rostow finds many similarities between his analysis of stages of growth and Marx's analysis of transition of society through various social formations. Both the views are of the whole societies for economic prospective and regard the fact that economic change has social, political and cultural consequences. In both the views class and group interests play an important role in political and social process and are linked with economic growth.

But Rostow regards Marx's theory of social development as inaccurate and over simplified, and claims his own analysis as better explanation of progression of societies. He offers following comments on Marx's analysis in this context :

Marx's system is a set of more or less sophisticated logical deduction from profit maximisation. His analytical assertion put in Communist Manifesto that capitalism left no other nexus between man than naked self-interest-called callous "cash payment". Rostow asserts that mere economic interest cannot explain the attitude of man. He is more complex unit. He seeks not mere economic advantage, but also power, leisure, adventure, continuity of experience and security. He is concerned with his family, familiar values of his regional and national culture and a bit of fun at local level. Human behaviour is not as an act of maximisation but as an act of balancing alternative and often conflicting objectives in the fact of the range of choice, man perceive to be open to them.

He rejected and terms Marx's analysis as inaccurate that a society's decisions are simply a function of those who own property. Rostow claims that "What Marx regards as capitalist societies, at no stage, even in their purest form even made all their major decisions in terms of the free market mechanism and private advantage. Rostow denies economic advantages as the dominant human motive and economy as the basis of social, cultural and political structure.

He emphasises that nothing in Marx's analysis can explain how and why land's interests in the end accentuated the Land Reforms Bill of 1832 or capitalist progressive tax system on welfare state as it is absolutely essential to Marxism that men fight and die over property. He states that one must explain such phenomena with reference to sense of commitment to national community and to the principle of the individualist utilitarian creed that transcends mere profit advantages and suggests that one must look directly at full mechanism of the choice among alternative polities and political process. Economic change in his analysis is viewed as the consequence of political and social as well as narrowly economic forces. Most profound economic changes are viewed as the consequences of non-economic human motivations and aspirations. Regards social and religious processes as independent are as for making of decision and choice.

In Marxian conception of development class struggle is the main mover of history, class struggle resolves the basic contradiction of each phase and determines the level of development through the expansion of forces of production. Rostow denies the unique determining forces of class struggle in progression of societies into different stages and social formations. He criticises that there is nothing in Marx's analysis that explain the acceptance of frame work of capitalism by working class when it joined the democratic political processes, despite continued disparities in income. Instead of class struggle, Rostow emphasizes the role of command considerations such as nationalism in making of movement of history. Rostow does not consider communism as a higher form of social development as compared to capitalism. Rather he states that it will wither away in the capitalist society in the age of high mass consumption. In terms of his analysis, Marxian theory of social development which emphasises distinct role of socio-economic system fails at peak of age of high mass consumption.

Apart from the analytical difficulties, Rostow finds two technical errors in Marx's analysis. These are-first, population did not move as to maintain a reserve army of unemployment; secondly, working of competitive capitalism yielded not stagnant but rising real wages. Growing reserve army of unemployed and falling real wage are analytical implications of Marx's analysis. Rostow, finally, terms. Marx's theory of social development full of flaws with legitimate partial insights. He considers his analysis being based on wider experience of the world economy, superior to that of Marx which for him (Rostow) is based mainly on the historical experience of Great Britain.

A (MARXIAN) CRITIQUE OF ROSTOW'S ANALYSIS

In terms of Marxian theory, Rostow's processes and stage analysis is described as anti-scientific construction presented in pseudo scientific wrapping. Scientific appearance is created by taking as the criterion for defining a stage of growth, the objective course of development of social production. Its anti-scientific nature lies in the fact that process of development of productive forces is examined in isolation from

the development of social production relation and from the class structure of the society.

Rostow compresses the whole history of economic development into five stages of growth invented by him, ignoring changes in socio-economic formations and class-struggle which is driving force of history. He maintains that the differences which exist between countries in the modern world are determined not by the antithesis of the two socio-economic systems, but the fact is that various countries are different in stages of growth.

“Rostow’s Non-Communist Manifesto” is found theoretically unsound. His classification of history in a set of stages of one economic growth is arbitrary and stages are explained in terms of impressionistic definition. Marx’s classification of history into primitive communism, slavery, feudal, capitalist and socialistic is only approximations to reality. The measuring rod is a single variable, the varying form in which the surplus is appropriated from the producers. This is not the case with Rostow’s analysis. Rostow’s analysis involves rejection of history by man ultimately. He states : “Beyond the stage of high mass consumption, it is impossible to predict, except perhaps to observe that Americans at least, have behaved in past decade as if diminishing relative marginal utility sets in after a point for durable consumer goods; and they have chose, at the margin to larger families.

According to this type of analysis, having reached peak of development, mankind stopped to think, trying to decide in which sphere it should apply its creative energy. At that stage mankind withdraws from the arena of history action and loses the meaning of its social being.

Rostow’s analysis conceals the nature and cause of underdevelopment and stagnation. He presents capitalist mode of development as the only possible path to development. The historical experience of bourgeois stage is projected as a model for the future evolution of the developing countries. He ignores the role of colonialism as the fundamental cause of under-development in the past, continuation of old exploitation in the new form in the Third World as one of major causes of their under development in the present. The experience of socialist countries shows that industrial progress can be achieved at fast rate not necessarily through the activities of the “entrepreneurial class.”

Rostow’s analysis has anti-communism ideological overtones. Its main aim is to discredit socialism as a social and economic system and Marxian as a theory of social development. He devotes considerable attention to demonstrate that the socialist industrial society is inferior and is at the preceding stage of capitalism. He states, “It (communism) can drive a society from take-off to industrial maturity. But in its essence communism is likely to wither away in the age of high mass consumption.” He reserved for capitalist society the monopoly of completing construction of the industrial society. He turns capitalism not only into a model of the future of the developing countries but into a model of future to socialist countries will inevitably come after their industrial

development.

In the ultimate analysis, he emerges as one of the exponent of theory of convergence which projects capitalism and socialism as merely different forms of the industrial society. The purpose of this theory, according to one of the first exponents, W.S. Buckingham, is to help overthrow Marxism. Rostow gives distorted interpretation of Marxism when he puts it as an economic interpretation of history. Marx, though considers economic interests as dominant, they are not the sole motives in life.

Finally, Rostow's analysis is partial and belongs to realism of idealism. He considers social and religious process as independent arena of decision making. In terms of Marxian analysis, he ignores the role of production activities in determining the social relations. This is the reason that in Rostow's analysis the process of change starts with external instructions and the societies lack their internal mechanism of dynamism and change.

**TRANSFORMATION OF TRADITIONAL AGRICULTURE :
SCHULTZ'S FORMULATION**

This question of transforming a pre-capitalist or traditional agriculture into a capitalist agriculture has occupied the attention of economists since long. T.W. Schultz has presented a brilliant analysis on this question in his book, *Transforming Traditional Agriculture*. Schultz's formulation of the transformation of traditional agriculture is the subject of many controversies among economists of various persuasions.

Modern Economics has been bred chiefly in Western Europe and the United States and despite its aspiration towards generality it bears the stamp of institutions and issues characteristic of these areas. This is why while agriculture is the oldest production activity of a settled community, much is not known about farmer, bound by traditional agriculture. In his characterization of traditional agriculture and the pattern of its transformation, Schultz noted that traditional agriculture is niggardly; this niggardliness is not a function of a unique set of preference related to work and thrift. It is predominantly a consequence of farmer having exhausted the profitability of the techniques of production : at their disposal; there is little or no incentive to save and invest in order to increase the stock of the forms of reproducible capital which farmers are employing. Because the crucial feature of traditional agriculture is the low rate of return to investment in agriculture that farmers have been using for generations, therefore, to transform this type of agriculture, there is need to develop and supply a more profitable set of factors. To develop and to supply such factors and to learn how to use them efficiently, is a matter of investment in both human and material capital.

The Problem

The farmers who farm as their forefathers can not produce much, no matter how rich the land or how hard they work. Only those farmers who have access to and know how to use what science knows about soils, plants, animals and machines can produce in abundance though the land be poor. Therefore, argued Schultz, "farming based wholly upon the kinds of factors of production that have been used by farmers for generations can be called traditional agriculture. Because a country dependent upon traditional agriculture is inevitably poor, so the question is : How to transform traditional agriculture, which is niggardly, into a highly productive sector of economy.

In Schultz's views basically this transformation is dependent upon investing on agriculture and thus it is an investment problem. But it is not primarily a problem of the forms that will make it profitable to invest in agriculture. Schultz's approach on this

issue treats agriculture as a source of economic growth. For agriculture to be a powerful engine of growth, it is necessary to invest in agriculture and so much depends on the form, the investment takes and the nature of incentives to guide and reward the farmers. This emphasis rests on the view that “once there are investment opportunities and efficient incentives, farmers will turn sand into gold.”

In determining the opportunities in agriculture for economic growth, Schultz tries to resolve three unsettled questions : First, can low income communities based on traditional agriculture increase agricultural production substantially by an efficient allocation of the agricultural factors of production presently at their disposal? To this question, the reply is : “The agricultural sector in a large class of poor countries is relatively efficient in using the factors of production at its disposal.” Secondly, which agricultural factors of production are primarily responsible for the large difference among countries in the success of agricultural sector in contributing to economic growth” In this connection, opposed to the conventional view the answer is, “Differences in land are less important and differences in the quality of material capital are of substantial importance, and difference in the capabilities of farm people are most important in explaining the differences in the amount and rate of increase of agricultural production.” Thirdly, to the question under what conditions does it pay to invest in agriculture” The proposed reply is: “It will not unless the man who farms has the opportunity and incentive to transform the traditional agriculture of his forebears.” This also means to determining the price of additional income streams that can be had by increasing the stock of reproducible factors employed in agriculture.

Attributes of Traditional Agriculture

The basic approach of Schultz’s study is to explain the production behaviour of farmers who are bound by traditional agriculture and then determine whether it is profitable to transform this type of agriculture by means of investment. In the views, “When farmers are limited to traditional factors of production they reach a point after which they can make limited or no contribution to economic growth because there are few significant inefficiencies in the allocation of factors, the removal of which would increase current production and because investment is made to increase the stock of traditional factors would be costly source of economic growth.”

While discussing the critical attributes of traditional agriculture Schultz rejects the three laws that (i) traditional agriculture is essentially a culture characterization of the way, particular people live, for whom farming is a way of life based on long established folk-ways, (ii) traditional agriculture is an institutional arrangement pertaining to ownership of land, the legal basis of tenure and one in which production is for home consumption; (iii) traditional agriculture is based on certain technical properties of agriculture factors of production, of culture attributes, institutional arrangements, or technical properties of factors of production.”

The rigidity of traditional agriculture is often attributed to particular cultural

values which relate to work, thrift, industriousness and aspirations for a higher standard of living. But in Schultz's opinion though cultural differences do matter, the difference in work, thrift and industry related to economic activities can be explained as economic variables. He wrote : "It is not necessary to appeal to cultural difference to explain particular work and thrift behaviour because economic factors provide a satisfactory explanation. Incentives to work more than these people do, are weak because the marginal productivity of labour is very low and incentives to save more than they do are weak because the marginal productivity of capital is also very low." Thus, howsoever, relevant the cultural attributes may be, in explaining some aspects of traditional agricultural, they do not provide a basis for distinguishing between traditional and other types of agriculture. Similarly, although the difference in institutional arrangements (whether farms are under resident or absentee ownership, whether they are small or large, whether they are private or public enterprise, and whether the production is for home consumption or for sale) are important in determining how to modernize agriculture by means of investment, they do not provide a key to identifying and understanding traditional agriculture. In the same way, since traditional agriculture is compatible with wide range of farming skills and of capital goods used in farming, differences in these technical attributes of agricultural factors do not provide a satisfactory basis for determining what is and what is not traditional agriculture.

In Schultz's conception, traditional agriculture represents a particular type of economic equilibrium at which agriculture arrives over a long period, provided particular conditions prevail. The critical conditions underlying this equilibrium are : (a) the state of the arts remains constant (b) the state of preference and motives for holding and acquiring sources of income remains constant and (c) both of these states remain constant for long enough for marginal preference and motives or acquiring agricultural factors as sources viewed as an investment in permanent income streams and with net saving approach zero. "In general, farmers who are limited to traditional agricultural factors are more secure than farmers who are adopting and learning how to use new factors of production because risk and uncertainty inherent in the use of new factors are of real concern to farmers. But since traditional agriculture is not introducing new factors, new elements of risk and uncertainty do not appear, they arise when the transformation gets under way."

But how transitory is traditional agriculture ? An increase in the value of farm products, a new transport facility, an irrigation facility, reduction in the costs of any agricultural factors etc., can bring about some change in traditional agriculture. "But in all of these, if the state of the arts in agriculture remains unchanged" emphasizes Schultz, "It would be only a matter of time before the particular equilibrium characteristic of traditional agriculture would re-establish itself." Because in his opinion the state of the arts is a key variable in explaining modern economic growth, whether the source of such growth is from agriculture or from the rest of economy. Moreover, traditional agriculture has certain strong built-in resistors

to any change in the existing state of the arts. The concept of traditional agriculture implies long-established routines with respect to all production activities. Here it is stressed that introduction of new factors of production subjects production possibilities to new risks and uncertainties. In this situation, the rate at which farmers of traditional agriculture accept a new factor of production depends upon its profit and in this respect the response is similar to that observed by farmers in modern agricultures. A better allocation of the existing stock of traditional agriculture. But their implication for growth opportunities are unimportant unless the art of farming of traditional agriculture is changed.

Allocative (Associative) Efficiencies of Traditional Agriculture

Not all poor agriculture communities have the economic attributes of traditional agriculture outlined by Schultz, yet in his opinion the economic acumen of people in such communities is generally maligned because it is said that they do badly in using the factors they have. "It is widely held that they save and invest too little of their income in view of what capital earns, that they pay no heed to changes in prices, and that they disregard normal economic incentives at every turn." Schultz maintains that this conception of poor agricultural communities is not true. Rather, among poor agriculture communities one fundamental attribute in common is that "they have for years not experienced any significant alterations in the state of arts, of their farming, these communities are traditional, their farmers continue year after year to cultivate the same type of land, sow the same crops, use the same techniques of production, and bring the same skill to bear in agricultural production."

Regarding the allocative behaviour of the farmers of Traditional agriculture, Schultz proposed : "There are comparatively few significant inefficiencies in the allocation of the factors of production in traditional agriculture." The implications of this view are : (a) appreciable increase in agriculture production is to be had by reallocating the factors at the disposal of farmers who are bound by traditional agriculture; (b) significant indivisibilities cannot be observed in traditional agriculture because the product and factor price are often flexible; (c) an outside expert, howsoever, skilled he may be in farm management, cannot discover any major inefficiency in the allocation of factors in traditional agriculture, (d) productive factors (land, draft animals, irrigation, reproducible form of capital etc.) which can make a net contribution to production are employed in traditional agriculture; given the existing state of the arts and other available factors and (e) each labourer who wishes and who is capable of doing some useful work is employed in traditional agriculture, with positive marginal productivity.

Still, if the community of traditional agriculture is poor, it is because the factors on which its economy is dependent are not capable of producing more under existing circumstances. The poverty of such a community is not a consequence of any significant inefficiencies in factor allocation. In fact, whenever a community has for decades or generations been living quite a routine economic life, it has long since achieved an

essentially efficient allocation of factors at its disposal. To support his views on the allocative efficiency of traditional agriculture, Schultz has quoted the findings of empirical studies from more than one part of the world.

After expressing his view on the allocative efficiency of traditional agriculture, Schultz critically examined the doctrine of agricultural labour of zero value and thoroughly rejected it. The concept underlying the doctrine of labour of zero value is one of workers in agriculture who contribute nothing to production. The marginal productivity of this labour is zero and, therefore, without changing anything else of consequence a removal of this part of labour force from agriculture will not reduce production. The concept pertains only to those persons who want to work, who are capable of working and who are in fact working. Those who have promulgated the concept have held that it applies predominantly to agriculture in low income countries.

In Schultz's views the trouble with doctrine of labour of zero value in agriculture is that it rests on a shaky conception of labour productivity in agriculture and is not consistent with any relevant data. He emphasised that in Traditional agriculture, "the productivity of labour is in general very low and agricultural production as a rule diminishes when some appreciable part of the labour force is withdrawn, provided that nothing else of consequence is changed." After analyzing the empirical data on this issue, Schultz noted : "The conclusion with respect to the doctrine that a part of labour working in agriculture in poor countries has marginal productivity of zero is that it is false doctrine. It has roots that make it suspect. It rests on shaky theoretical presumptions".

Investment, Profitability in Traditional Agriculture

In studying economic growth, whether from agriculture or from other sectors in economy, investment is considered by Schultz as necessarily the core of analysis. Further, there are as a rule, no significant inequalities in the form of return to investment among the factors of production employed in traditional agriculture. In it a low level of net investment or even no net investment whatsoever, is because of the weak incentive to save and invest. In this situation, a low rate of return would provide a logical basis for a low ratio of saving to income, for little or no foreign capital entering into traditional agriculture, and formal rate of net capital formation.

"To obtain an income stream", argued Schultz, "it is essential to acquire the sources of stream. These sources are valuable and each income stream has in this sense a price of these income streams." In Schultz's analysis, the concepts of demand and supply are applied in the context. The suppliers of sources of permanent income streams hold the key to economic growth. Because only when they are able to produce and supply these sources cheaply the stage is set for saving and investment necessary for economic growth. In the early stage, however, the suppliers unable to produce

sources of income streams cheaply enough to induce the demanders to purchase any new or additional sources, as the price is high and the rate of return to investment is low. In this context, to provide a unifying explanation of wide array of empirical behaviour pertains to saving and investment of poor communities. Schultz proposed : “The price of the source of income streams for agricultural production is relatively high in traditional agriculture.” That is “in traditional agriculture, the factors of production on which a community depends are expensive sources of economic growth.”

Nevertheless, traditional agriculture can be transformed into a relatively cheap source of economic growth. It was done and is being done under two types of approaches distinguished by Schultz as command approach and market approach. “There is a command approach based on the use of political power only to reorganize agriculture production and to administer farming activities. Alternatively, there is a market approach based predominantly upon economic incentive to guide farmers in making production decisions and to reward them in accordance with their allocative efficiency, although this entails particular public investment and state activities.” The essential difference between these two alternative approaches is not a command approach (in which the key decisions are centralized) excludes additional investment in agriculture or that a market approach (in which relative prices integrate consumption, investment and production decisions through the medium of market-mechanism) excludes any and all state intervention in matters, pertaining to agricultural production. In Shultz’s understanding, the difference in the two approaches of transforming traditional agriculture lies in the difference in the efficiency of absentee and resident production decisions in farming. Therefore, it is argued that at the level of the economic basis the “private resident decision making is more efficient of the two in farming.

While generalizing historical experience Schultz argued that “again and again people transformed a particular traditional agriculture by adopting and learning how to use new factors of production.” It means “technological change” must be made available and acceptable to farmers who are bound by traditional agriculture. At this stage, the suppliers of the new reproducible factors of production which cause “technological change” and farmers in their role as demanders of them, hold the key position in the process of transforming traditional agriculture. In traditional agriculture, “although suppliers and demanders attached to each group are in equilibrium in relation to the going price at their respective stands, there is a massive disequilibrium among the stands. The opportunity for economic growth from agriculture in most poor countries in which farming has not been modernized is a function of this massive disequilibrium. A complex transformation would imply an approximation to a worldwide equilibrium in the return to the relevant agricultural factors of production.” However, the attainment of this transformation implies a revolution in the productivity of agriculture world over and particularly in countries of traditional agriculture.

In terms of the attributes of the economic disequilibrium, a three fold classification

of the agricultural opportunities for economic growth is proposed by Schultz. The three cases are of the traditional, modern and transitional stages of agriculture, which are described by Schultz as :

(i) Traditional : To this class belong all agricultural sectors in which the state of the arts, preference and motives for holding and acquiring agriculture factors as sources of income streams have remained approximately constant for a long period. As a result, the suppliers and demanders of agricultural factors have arrived, long ago, at a particular long run equilibrium. The distinctive economic characteristic or attribute of this type is the high price of the source of permanent income stream from agricultural production.

(ii) Modern : In this case, farmers employ modern agricultural factors of production and there is only a small lag between the development of any new factor of production and its adoption, provided it is profitable to farmers. The task to discover and develop additional new, profitable factors of production is undertaken by the research establishment of the country for which it is necessary to invest in activities that contribute to an advance in knowledge and its application to agricultural production. In such a country, in general, the preference and motives for holding and acquiring sources of permanent income streams have not arrived at a long-run equilibrium with respect to the supply price of such resources. Therefore, in general, the price of sources is low and, as a rule, the rate of increase of agricultural production is not as high as in many countries of the transitional stage, because of the relatively slow growth of the demand for farm products.

(iii) Transitional : In between the traditional and modern stages there exists a vast economic disequilibrium, the fundamental source of which is the large inequalities in the price of agricultural factors relative to their value productivity in agriculture. This disequilibrium originates neither in inequalities in farm product prices between the traditional and the modern agriculture. The agriculture of any country or community enters this transitional stage when it acquires a supply on one or more profitable, non-traditional factors of production. In itself this state of agriculture is composed of many sub-classes and sub-stages with respect to the stage of agricultural development and the number of new profitable factors which are ready and available for adoption.

Thus, we see that these stages of agriculture are, in fact, three stands at which the suppliers and demanders of new, profitable, non-traditional agriculture factors of production are selling and buying. "What matters are the economic forces that sooner or later will bring all the three cases together into single well integrated market, i.e., the market of the relevant reproducible agricultural factors. Three forces can be harnessed efficiently only by means of investment", emphasized Schultz.

Nature of Farm 'Size' Control and Incentives

The analytical core of Schultz's discussion of transforming traditional agriculture

rests on his views on those important issues which are since long, centre of ideological controversies. These issues relate to the size of farms, to control of economic decisions by the state, and to incentive that guide and rear farmers for efficient farming.

In Schultz's formulation the nature and size of farms, whether small or large, are not essential economic attributes of traditional agriculture. The types of investment that are essential in transforming traditional agriculture are not dependent upon the establishment of larger farms. The size of farm may change as a consequence of the transformation, but changes in size are not the source of economic growth to be had from this modernization process. Because, to quote Schultz, "The transformation of traditional agriculture always entails the introduction of one or more new agricultural factors and, therefore, it gives rise to a process in which the critical question is not one of scale but of factor proportionality. In fact, the question of farm size is related to the specialization of function, the locus of control over production decision, the state of information on which these decisions are based, the rate of which traditional agriculture is being transformed, and the risk and uncertainty inherent in the incentives that guide and reward the farmers. In this context, Schultz has rejected, what he termed as a doctrine of "agricultural fundamentalism" and "industrial fundamentalism", that is of the "family farms" as the natural economic units in farming and of the 'gigantic' large sized managed farms by the modern machinery.

One of the important factors determining the efficiency of agricultural production is the locus of the person or agency making the production decision in farming. Moreover, in Schultz's opinion, "whether the control over production decision is vested in persons who reside on farms, or in persons who are far removed from farm operations and whether the farm is large or small, what matters is the relationship of each of these components to the state of economic information on which production decisions are based and the state of economic incentive and rewards for making efficient decisions.

Absentee ownership in agriculture is commonly associated with land and its structures. Schultz is of the opinion that "absentee arrangements are in general inefficient." The economic basis for this inefficiency is considered to rest on the fact that "the current operating decisions and the investment decisions in farming are not only subject to many small changes which entail seasonable, mechanical and biological subtleties that cannot be utilized but also consequence of the advance in useful knowledge." The decisions to deal with these subtleties, etc., cannot be made efficient under absentee arrangements because it becomes difficult to get sufficient information, to develop the necessary incentives and to delegate responsibilities for decision. For the suitable control arrangement suggested by conditions, it is proposed that "under competitive conditions as farmers adopt and learn how to use modern agricultural factors and increasingly larger part of all farming is taken over by owner-operations." In this situation, the allocative function of rent is important and "any suppression of rent impairs the signal and incentives that the necessary to guide and induce farmers to use farm land efficiently."

Further, Schultz does not agree with the view that farmers in traditional agriculture show little or no response (as even perverse responses) to normal economic incentives. "The allocative function of product and factor prices cannot be dispensed within transforming traditional agriculture", he argued. "A command system, whether it operates through large or small farms; is inherently inefficient" and that in this context, there is no efficient alternative to market system. Schultz argued against and proved as false the two views that farmers either do not respond to changes in the prices or respond only perversely and that income can be transferred either out or into agriculture, by either lowering or raising farm prices somewhat, without impairing the allocative function of such farm prices. "There is always the choice of improving the allocative function of farm product and factor prices, or of supplanting them with other controls which always turn out to be inefficient." The improvements that matter are of several kinds : integrating local market into larger markets; disseminating economic information about products and factors; reducing imperfections in the capital market, pricing at marginal costs, the services of irrigation and other facilities subject to indivisibilities and to scale requirement that preclude a competitive price; investing in health, schooling and other forms of human capital; and reducing the fluctuations of farm prices.

Role of Technological Changes and Productive Investment

The relation between costs and return to investment in the factors of production is the main reason why there is not sufficient inducement for farmers in poor agricultural communities to save a large proportion of their income to invest in such factors. The low rate of return simply does not warrant the additional investment. Schultz wrote "There is atleast little opportunity for growth from traditional agriculture because farmers have exhausted the profitable production possibilities of the state at their disposal. Better resource allocation and more saving and investment restricted to the factors of production they are employing, will not do much for growth".

Schultz stressed that techniques are factors of production and that a technology is always embodied in particular factors and therefore, in order to introduce a new technology it is necessary to employ a set of new factors of production. It is in this sense that "a technique of production is an internal part of one or more factors", and "the technology used for production is an internal part of the productive agents employed." Further, "since the productive agents include the human agent, the knowledge of how to employ each of the productive agents including himself is also an integral part of the factors of production." In fact, the concept of technological change conceals most of the essence of economic growth. In considering transformation of traditional agriculture it is necessary to consider not only the traditional factors, but also the new factors that embody the new technique of production.

After the particular factors of production concealed under technological change are identified and the problem of analysing the source of economic growth is clarified,

Schultz presented the following two brand propositions ;

(i) That “the economic basic law of slow growth associated with traditional agriculture is explained by the dependency upon a particular set of factors of production, the profitability of which has been exhausted.” (ii) that “in order to break this dependency farmers situated in traditional agriculture must somehow acquire, adopt and learn how to use effectively a profitable new set of factors.” The concepts of demand and supply are considered to be useful to analyse the process of attaining the objective implied in the second proposition, that is to examine the roles played by the demanders, (the farmers, in traditional agriculture), the suppliers (the persons who discover, develop, produce, distribute) and also profit or non-profit firms or agencies or the new profitable set of factors and the economic basis for their behaviour.

The principal sources of the high productivity of modern agriculture are reproducible sources. They consist of particular material inputs and of skills and other capabilities required to use such inputs successfully, that is modern material inputs and of farm people with modern skill. In this regard, in considering the transformation of traditional agricultural, Schultz emphasized that “(1) both research and development are, with few exceptions, necessary to adopt known modern agricultural factors to the requirement of poor countries. (2) private firms for profit can as a rule capture only a part of the returns from such research establishment arrangements based on enough firms to assure competition, and (4) the economic basis of (2) and (3) makes it necessary that public and private non profit bodies be organised to perform some of these research and development functions in supplying modern agriculture factors to communities that do have access to them”.

The suppliers of the new reproducible factors of production are induced important and they hold the key to the transformation of traditional agriculture. Because, “economic growth from the agricultural sector of a poor country depends predominantly upon the availability and price of modern (non-traditional) agricultural factors”, only the suppliers succeed in producing and distributing these factors cheaply then the investment in agriculture becomes profitable. This then sets the stage for farmers to accept modern factors and learn how best to use them; provided an inducement to increase saving and develop institution to provide credit for financing investment in modern factors.

Once new profitable factors of production have been developed the question of their distribution becomes important. The distribution of such factors is done predominantly by suppliers who are either profit-making firms or non-profit agencies. The profit that a private firm can expect to make from distributing new agricultural factors depend mainly upon the cost of entry and the size of the market. Here, Schultz is of the view that, because costs of entry are generally high and market for factor is small, there is seldom any room for profits from this business especially for typical poor agricultural community, and, therefore, “unless and until distribution of new factors can be made profitable, it will obviously not attract private firms.” To do the role of non-

profit agencies that disseminate technical and economic information to farmers is considered very significant." Before private companies can enter this, field, it is often necessary for non-profit agencies to pave the way, stressed Schultz. There are two reasons why firms for profits cannot capture all of the returns in the initial stages of transformation of traditional agriculture, first they cannot capture all of the returns of the research undertaken, and secondly, they cannot as a rule establish a research establishment of optimum size. In fact, the practical problem is to find an efficient non-profit approach for this task. Schultz maintains that a poor country may induce some foreign agencies to enter to provide some technical assistance, but for the most part a poor country must develop its own institutions to perform this function. In this connection, the issue of profit making or non-profit agencies, or foreign or native institutions, etc., are important, but are not fundamental. "What is fundamental throughout is supplying these reproducible agricultural factors of production is the perspective high rate of investment in the endeavour to modernize the agriculture where farm people are dependent upon relatively unproductive and unprofitable traditional factors of production."

Having examined the supplies of agricultural factors, the next step of Schultz is to consider farmers as demanders of these factors. He believes that modern agriculture is obviously a consequence of farmers having acquired and having learned how to use new superior factors of production. And it can be done because, "the notion that all farmers are handcuffed by traditional views, making it impossible for them to modernize agriculture, belongs to the realm of myth", he remarked.

Now, what determines whether farmers will accept new agricultural factors? The difference in the rate of acceptance can be explained either in terms of cultural attributes or in terms of profitability. "Since difference in profitability are the strong explanatory variables, argues Schultz, "It is not necessary to appeal to differences in personality, education and social environment." The concept of profitability is not restricted to market transactions however, "What matters, of course, is the price of the new factor and its yield in the poor community." Thus, the rate of acceptance of new agriculture factors by farmers in traditional agriculture depends upon the profitability of adopting and using the factors and this profitability, in turn, depends upon the price and yield. And not only these relative but the absolute increase in yield are what pay the costs and allow a profit. The difference in year to year fluctuations yield between the new and old factors can be very important. Moreover, tenure arrangement that determine how landlords and farmers share costs and returns can block the acceptance of factors that would be highly profitable under more appropriate arrangements. Also important is the "additional knowledge and skill that may be required to use agricultural factors effectively.

Investment in Human Capital (Agent)

In Schultz's analysis, the profitability of using new agricultural factors depends

upon the rate of acceptance by farmer. Learning how best to use modern factors entails both new knowledge and skills on the part of farmers, the knowledge and skill are in essence an investment in farm people and there are three ways of acquiring learning from experience on the job, training and schooling. Learning only from experience is slow and expensive way than on the job training which has large role to play until schooling can take over most of the basic work producing the required knowledge and skills.

In modernizing agriculture, the acquired capabilities of farm, people, are of primary importance and these capabilities, like capital goods, are produced means of production. In this context, Schultz wrote : "Although skills and related knowledge can be improved and enhanced throughout life, there are strong cultural and economic reasons for acquiring most of them while young. There is also the basic economic fact that acquired capabilities are not free, they entail real, identifiable costs. They are, in essence, an investment in human capital.

A critical factor, limiting the economic growth of poor countries is the relative shortage of capital, that is, of capital of non-traditional forms, consisting both of material capital and of human capital. The new capital available from foreign sources to poor countries mainly goes into the formation of equipment and structures and not in additional investment in man. As a result, even material capital is available for development, the lack of human capabilities becomes limiting factors in economic growth. Therefore, subsequently, the absorption rate of capital to argument only particular material resources also remains necessarily low.

Among all other factors, schooling is the most important component of human capital. Of course, there are situations in which economic growth directly depends on additional schooling and there are other situations in which additional schooling becomes very important for economic growth through the development of human agent. The historical circumstances in which difference in schooling of farm people played only a very small part in agricultural growth are : growth from the opening up of new farm, from water for irrigation provided mainly by public bodies, from mechanization of field crops, from the adoption and effective use of agricultural factors that are profitable, and from the opening of new market for farm products. "In general", Schultz wrote, "Where technically superior factors of production are principle source of agricultural growth, schooling also counts." It is particularly so because transformation of traditional agriculture is no longer restricted to the adoption of only single new factors but requires the successful adoption, a complex of such agricultural factors, and moreover, this adoption process is a long and continuing one.

A poor country with a traditional agriculture can either import particular skills and knowledge or produce them at home. Further, there are two ways of importing such skill and knowledge; one by including foreigners to come and offer their skills, the other by having some people go abroad to acquire a command over such skills and

then return. Considering this aspect, Schultz wrote : “While there are some agricultural skills that can be imported more cheaply, than they can be produced in low income country; home produced skills are always the primary sources of various acquired abilities that are needed for modern agricultural production. To acquire these abilities, it is necessary” to invest in farming people.” But this investment is burdened with handicaps and some of these handicaps are fundamentally cultural in the sense that manual work, including farm work, is held in low regard in many poor countries, in the opinion of Schultz. Moreover, “schooling and other investment in farm people are as a rule involved both public and private expenditures, and the public expenditures for these purposes are swamped by other conflicting interests of political nature”, he wrote.

Schultz suggested, however, that there are number of activities that have the attributes of an investment in man in terms of “schooling” : first short courses during seasons in farming for adults, secondly, on-the-job training and apprenticeship; thirdly, formally organized schools at the elementary, secondary and high levels; fourthly, health facilities and services; and fifthly, migration within agriculture. Of all, the primary schooling is suggested to be the most profitable of all because “it entails lowest cost per year of schooling when children are still too young to do any appreciable amount of useful farm work”. In general, when farm people are sufficiently and effectively literate, farm journals and press becomes important vehicles of useful information. The importance of schooling when one is young is so much that as pointed out by Schultz and that, “poor countries enter substantially upon in the process of modernizing-low level of schooling of farm people soon becomes a limiting factor in the rate of growth of agriculture”.

Thus, in sum and substance, Schultz’s views on transformation of traditional agriculture are : The man who is bound by traditional agriculture cannot produce much food no matter how rich the land. Thrift and work are not enough to overcome the niggardliness of this type of agriculture. To produce an abundance of farm products require that the farmer has access to and the skill and knowledge to use all that science knows about soils, plants, animals and machines. To command farmers to increase production is doomed to failure even though they have access to knowledge. Instead, an approach that provides incentives and rewards of farmers is required. The knowledge that makes the transformation possible, is a form of capital, which entails investment. The investment is required not only in material inputs in which a part of this knowledge is embedded but importantly also investment in farm people.

A CRITIQUE

Schultz’s analysis of transforming a traditional agriculture into modern capitalist agriculture is a brilliant analysis. It is applied with a considerable success in most of the developing third world capitalist countries covered under the imperialist strategy of “green revolution”. Some of the outstanding features of this analysis are emphasis on agriculture as an engine of growth, importance of economic

attributes of traditional agriculture significance of suppliers or reproducible non-traditional material inputs, stress on the role of acceptance of the modern inputs by farmers to transform pre-capitalist agriculture and stress on investment in farm people.

In spite of this, Schultz's formulation of transformation of pre-capitalist mode of agriculture, into a capitalist mode suffers from serious shortcomings. That is why this formulation remained the centre of serious controversies. In brief, some of these shortcomings are outlined here.

Schultz's theory of transforming traditional agriculture is too general to be applied with advantage in a specific situation. No doubt, that the economic attributes are significant but cultural attributes are also important in analysis understanding and transforming traditional agriculture of a poor community. Moreover, even in traditional agriculture, there are risks and uncertainties which farmers have to face in their process of reproduction. In fact, in such a agriculture factor-allocation is only approximately, and in general, efficient but is not true everywhere and in every case. A traditional agriculture has localized and scattered production and in it the farmer's response in given economic incentive cannot be properly evaluated at the macro level. The existence of disguised unemployment in some poor countries of traditional agriculture cannot and should not be denied.

There are serious ideological bases in Schultz's views concerning the state of affairs of agriculture getting transformed in centrally planned economies, because it is wrong to say that "command approach" is inherently inefficient as compared to "market approach". Moreover, the question of division of land into small or big farms has very far reaching social-economic and political consequences in the process, of economic transformation and social change even in the developing capitalist countries. In fact, modern agricultural factors cannot be efficiently used irrespective of farm size.

Contrary to Schultz's understanding the practice of social change in most of the countries experiencing economic transformation has demonstrated that even after initial break-through in research and information by non-profit making firms, this task cannot be left entirely to the profit making private firms. Next, the rate of acceptance of new reproducible factors of production does not always and necessarily depends in the initial stage of course, on the economic profitability of the use of such factors. In fact, the cultural traits of particular peasantry also play their role in this context. Further, it is incorrect to say that investment in farm people is neglected in all the traditional agricultural societies.

In his analysis of transformation of pre-capitalist mode of agriculture into capital mode, Schultz has given excessive importance of the role of the forces of production and has almost thoroughly neglected the related aspect of change in the relations of production. In fact, the structural 'adjustment' between the physical basis of production

and infrastructural facilities and the relative 'balance' between forces and productive relations are the two historical requirements for acquiring and maintaining a given level of socio-economic development. Both the adjustment and balance are missing in Schultz's formulation. In his whole analysis of the process of transformation of agriculture, out of these two sets of factors, the main emphasis has been laid on extension and improvement of infrastructure and on the development and application of the productive forces. There is no policy measure or suggestion in Schultz's theory about the change in the distribution of land and production in the process of transformation of traditional agriculture. As a result his theory fails to explain the nature and essence of contradictions emerging during the transition from traditional to modern capitalist agriculture. On this ground also, Schultz's theory does not qualify to be termed as scientific explanation of the process of agricultural transformation.

ਪ੍ਰਸਤਾਵਿਤ ਕਿਤਾਬਾਂ

1. G.M. Meier and R.E. Baldwin; *Economic Development*.
2. J.A. Schumpeter, *The Theory of Economic Development*.
3. J.A. Schumpeter, *Capitalism, Socialism and Democracy*.
4. V.B. Singh. *Theory of Economic Development*.
5. W.W. Rostow: *The Process of Economic Growth*.
6. W.W. Rostow : *Stages of Economic Growth : A Non-communist Manifesto*. Progress Publishers, Moscow : *The Future of Society*.
7. T.W. Schultz, *Transforming Traditional Agriculture*.
8. V.B. Singh (ed.), *On Political Economy*.
9. Mob Rowthron, "Neo-Classical Economics and its Critique." *Social Scientist*, No. 15, Oct. 1973.
10. ਕਾਰਲ ਮਾਰਕਸ, 'ਸਰਮਾਇਆ', ਜਿਲਦ ਪਹਿਲੀ, ਨਵਯੁੱਗ ਪਬਲਿਸ਼ਰਜ਼ (ਪੰਜਾਬੀ ਅਨੁਵਾਦ) 1975 ਕਾਂਡ 13, 14, 15, 23.

Long Answer Type Question

1. Explain the theory of capitalist development as given by J.A. Schuimpeter alongwith its Marxian Critique
2. Enumerate how capitalist development becomes responsible for its won destruction? How it is different from Marxies views on capitalism's destruction.
3. While explaining the theory of social development as given by Rostow, also given its marxian critique.
4. Explain the T.W. Scheltz' view on transformation traditional agriculture into modern agriculture alongwith its marxian critique.
5. Explain the marxian critique of orthodox economics and evaluating of orthodox economics that instead of deeper and scientific analysis it restricted itself to apparent problem of the economic phenomenon.
6. Anlysis the weatness of transformation of regulated capitalism and its capitalist theories into socialist theories.

Short Answer Type Question

1. ਖਜ (invention) ਅਤੇ ਕਾਢ (innovation) ਵਿਚ ਅੰਤਰ ਦੱਸ।
2. The role of innovator in capitalism
3. Schumpeter's views on end of capitalism.
4. Write down six propension as given by Rostow.
5. Stage of High mass consumption
6. Traditional agriculture
7. Disguised unemployment in traditional agriculture.
8. Briefly state the market approach as suggested by T.W. Schultz.
9. Importance of knowledge of peasants as told by schultz
10. Labour theory of value
11. Richardo's views regarding labour theory of value
12. Regulated capitalism
13. Possibility of convergence between capitalism and socialism.