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Social Work Profession: Evolution And Contemporary Ideologies (Panjab University)



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M.A. ECONOMICS, SEMESTER - IV
PAPER : MAECO 401 : ECONOMICS OF GROWTH AND DEVELOPMENT-II

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INTRODUCTORY LETTER

Dear Students,

We welcome you in the IVth Semester of M.A. Economics. You might be aware that in this semester again you are having a paper on Economics of Growth and Development-II. In the previous semester, we made you conversant with many aspects of growth and development from its meaning to the models of economic growth and development, role of natural resources, capital and institutions etc. in economic development. The concept of dependency was also introduced to you. Then the dual relationship of population growth and economic development was also discussed. The concept of sustainable development which is gaining importance in the present context was also discussed. Hence continuing with economic development and growth, in the present paper, we will study initially about the structural changes and the changes in the income distribution which accompany with the process of economic development. Then the strategy of economic development will be discussed. Models based on agriculture-industry linkages will also be discussed in the subsequent lessons. Then economic integration of the developing countries with the global village via international trade, foreign finance and foreign aid will also be given due importance in discussion. In the last, but not the least, role of market and state will be taken care of. All these topics are of utmost importance so far as the process of economic development in the developing economies is concerned.

We hope that you will find the study material on all these topics quite comprehensive and easy to understand. Anyhow, any query in this regard will be welcomed.

With all best wishes.

Prof. Harsh Gandhar

Course Leader

Deptt. of Economics

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SEMESTER-IV

PAPER -MAECO-401: ECONOMICS OF GROWTH AND DEVELOPMENT-II

Max. Marks	: 100
Theory	: 80 Marks
Internal Assessment	: 20 Marks
Time	: 3 Hours
Teaching Hours	: 50

Objective:

The main objective of this course is to look at the process of growth and development in terms of its characteristics such as structural transformation, pattern of distribution of income, its inter sectoral interface. In addition, it also aims to take up issues pertaining of the emerging global scenario and the debate concerning the planning vs marketism which is so vital for development theorists and practitioners.

Pedagogy of the Course Work: The course relies on a combination of lectures, solving problems, and discussing of academic articles or real life situations. Teacher will assign topic for assignments on contemporary themes and issues from the syllabi. Special tutorials/contact hour for one-to-one student teacher interactions.

INSTRUCTIONS FOR THE PAPER-SETTER AND CANDIDATES:

1. The syllabus of this paper has been divided into four units.
2. There shall be 9 questions in all.
3. The first question, which would be compulsory, shall be short answer type (word limit 25-30 each). It would carry 15 short questions, spread over the entire syllabus. The candidate will be required to attempt any 10 short answer type questions. Each short answer type question would carry 2 marks ($10 \times 2 = 20$).
4. Rest of the paper shall contain 4 units. Each unit shall have two questions and the candidates shall be required to attempt one question from each Unit— 4 in all. Each question shall carry 15 marks ($15 \times 4 = 60$).

UNIT-I

Economic Growth and Structural Change: Structural Changes in the Composition of Gross Domestic Product and Occupational Structure.

Exploring the Relationship between Economic Development and Income Distribution: Kuznets' inverted U-Shaped Curve and Augmented Kuznets' Curve.

UNIT-II

Agriculture-Industry Interface:

The Models of Lewis, Fei and Ranis and Todaro.

The Balanced Growth Doctrine (Rosenstein Rodan), Unbalanced Growth (Hirschman's version).

UNIT-III

Investment Criteria

Investment Criteria; Choice of Technique.

Economic Isolation and Integration with the Global Market: International Trade and Economic Development; Foreign aid and Economic Development ; Role of Foreign Direct Investment (FDI) and Multi-National Corporations (MNCs) in the Emerging Scenario.

UNIT-IV

Market and State: An Overview of the Economic Functions of the Market and State. Planning and Market: Planning by direction, Planning by market, Planning in backward areas.

From Washington to post-Washington consensus.

Recommended Readings:

Agarwala, A. N., & Singh, S. P. (Eds.). (1963). *Economics of underdevelopment: A series of articles and papers*. London : Oxford University Press.

Chenery, H. B., Syrquin, M., & Elkington, H. (1975). *Patterns of development, 1950-1970 (Vol. 75)*. London: Oxford University Press.

Halm, G. N. (1951). LEWIS, W. ARTHUR. The Principles of Economic Planning. Pp. 128.

Kuznets, S., & Murphy, J. T. (1966). *Modern economic growth: Rate, structure, and spread (Vol. 2)*. New Haven: Yale University Press.

Lewis W. Arthur (1976). *Development planning: The essentials of economic policy*. London: Routledge.

Meier, G. M., & Rauch, J. E. (Eds.). (1995). *Leading issues in economic development (Vol. 6)*. New York: Oxford University Press.

Ranis, G., & Fei, J. C. (1961). A theory of economic development. *The american economic review*, 533-565.

Ray, D. (1998). *Development economics*. New Jersey: Princeton University Press.

Thirlwall, A.P. (Latest edition). *Economics of development: Theory and evidence*. New York: Palgrave Macmillan.

Washington: Public Affairs Press, 1951. 2.50cloth., ...00 card. *The ANNALS of the American Academy of Political and Social Science*, 278(1), 234-234.

ECONOMIC GROWTH AND STRUCTURAL CHANGES

Structure

- 1.0 Objectives.
- 1.1 Introduction.
- 1.2 Why study structural changes?
- 1.3 Patterns of sectoral change.
- 1.4 Capital Formation.
 - 1.4.1 Accumulation of physical capital
 - 1.4.2 Accumulation of human capital
- 1.5 Demographic changes.
 - 1.5.1 Structure of world's population.
 - 1.5.2 The Demographic Transition.
 - 1.5.3 The Recent decline in population growth rates.
- 1.6 Urbanization and its Role in Economic Development.
- 1.7 Summary.
- 1.8 Glossary.
- 1.9 References.
- 1.10 Further Readings.
- 1.11 Model Questions.

1.0 Objectives

After going through this lesson you will be able to:

- understand the reasons underlying the study of the structural changes.
- describe the sectoral changes taking place along with the process of economic development.
- explain Demographic changes which accompany the process of economic development.
- outline the concept of urbanization and its role in economic development.

1.1 INTRODUCTION

In the last semester, we studied about economic development and economic growth and the theories and models related with them. Moreover, we analysed the relationship of population and economic development. We were also able to outline the concept of sustainable development and the concerns related with it. Continuing with the study of economic development, in this lesson, we will study about the process of economic development and the structural changes accompanying this process.

The most distinctive feature of the process of economic growth witnessed by the developed countries, viz. USA, UK (excluding Ireland), Germany, France and Japan, during the past 150 to 200 years has been a marked and sustained rise in percapita product, an important indicator of standard of living. This increase in percapita product occurred inspite of a sustained rise in the population of all these countries, with the obvious implication that the total product grew at a much higher rate than per capita product.

These high rates of growth in per capita product and population have been associated with pronounced structural changes in all these countries. So it becomes imperative to study the structural changes in detail. The principal structural changes emphasized in the literature of development and growth are increases in the rates of capital accumulation (Rostow, Lewis); shifts in the sectoral composition of economic activity (industrialization) focusing initially on the allocation of employment (Fisher, Clark) and later on production and factor use in general (Kuznets, Chenery); and changes in the location of economic activity (urbanization) and other aspects of industrialization (demographic transition, income distribution etc.)

The interrelated processes of structural change that accompany economic development are jointly referred to as structural transformation.

1.2 WHY STUDY STRUCTURAL CHANGES?

The main rationale behind the study of the structural change is that it is considered to be the main centre of modern economic growth. The construction of any comprehensive theory of development is not possible unless the whole process of growth is described and the structural change is the essential ingredient of that. It is generally hypothesized that there is a strong inter-relationship between economic growth and structural change. While their interdependence has been recognised by most writers, some have emphasized the necessity of structural changes for growth. According to Kuznets "Some structural changes, not only in economic, but also in social institutions and beliefs, are required, without which modern economic growth would be impossible (Kuznet 1971, p 348). (He views economic development as a set of interrelated changes in the structure of an economy that are required for its continued growth' Chenery (1979, p xvi). According to Abramovitz (1983, p. 85), the interdependence also appears as a cumulative process: "Sectoral redistribution of output and employment is both a necessary condition and a concomitant of productivity growth. In the absence of a continuous equalization of factor returns across sectors, the reallocation of resources to sectors of higher productivity contributes to growth in such disequilibrium situations structural change becomes a potential source of growth if it leads to a fuller or better utilization of resources. The potential gains are likely to be more important for developing countries than for developed ones since the former exhibit more pronounced symptoms of disequilibrium and can achieve faster rates of structural change. In a dynamic context the gains can be far from negligible, accounting for as much as one third of the measured growth in total factor productivity (Syquin, 1989; p.209).

On the empirical side, studies of long run transformation are best represented by Kuznets synthesis of modern economic growth in a series of seminal papers. He established the stylized facts of structural transformation. His essays on modern economic growth are a compendium of ideas on growth, transformation, distribution, ideology, institutions and their interrelations. Empirical research on the features of modern economic growth started with comparisons of long term series in developed countries and then turned to cross country comparisons of less developed countries for a given year or short periods. Cross section relations, it was implied or hoped, were good substitutes for relations within countries over time: "Cross-section analysis of national structures, at a given point in

time - add - an insight into current structural differences, viewed partly as points in the process of growth, Caught, as it were, at different stages and phases." [(1959), p. 174].

As the time series of developing countries accumulated, the cross country framework was expanded to include a comparison of short time series for a large number of countries. This allowed examination of the stability of cross section results, and the estimation of uniform time shifts. Instead of searching for a unique pattern, attention was turned to the determination of average patterns of over time (Chenery 1960) and to an exploration of the relation between time series and cross section patterns (Chenery & Taylor: (1968), chenery and syrquin (1975).

It is generally hypothesized that as growth proceeds and income rises, the savings rate and ratio of investment to GNP rise; the share of income spent for non-agricultural products increases; the share of three sectors in the national product change; government takes and spends an increasing share of the national income, the largest single increase being for education: cities grow; literacy increases; a middle class gradually emerges; the birth rate and death fall. But not equally; imports and exports both increase, not only absolutely but also more rapidly than does the national product, and so on.

Chenery and syrquin (1975) using some 2000 observations concerning 130 variables from 101 countries for the period 1950-1970, estimated the most likely relationship of these and various related variables to the level of income and the size of the country's population. The following table 1 presents their results. The income levels shown are the per capita GNP in U.S. dollars at 1964 prices. For 1980 prices, the figures should be doubled. Since the two researchers use quadratic equations to calculate the most likely values of each variables, the extreme values are not good estimates; hence for per capita income levels below \$ 100 and above \$ 1000, they used the mean values of their data rather than the values arrived at by means of their equations.

Table 1
Normal variation in economic structure with level of development
Predicted Values at Different Income Levels (stated in 1964 prices)

	Mean under \$100*	\$100	\$200	\$300	\$400	500	\$800	\$1,000	Mean Over \$1,000+	Total Change	Y at Mid Point
Accumulation Processes											
1. Investment											
a. Saving	.103	.135	.171	.190	.202	.210	.226	.233	.233	.130	200
b. Investment	.136	.158	.188	.203	.213	.220	.234	.240	.234	.098	200
c. Capital inflow	.032	.023	.016	.012	.010	.009	.006	.006	.001	.031	200
2. Government revenue											
a. Government revenue	.125	.153	.181	.202	.219	.234	.268	.287	.307	.182	380
b. Tax revenue	.106	.129	.153	.173	.189	.203	.236	.254	.282	176	440
3. Education											
a. Education Expenditure	.026	.033	.033	.034	.065	.037	.041	.043	.039	.013	300
b. School enrollment ration	.244	.375	.549	.637	.394	.735	.810	.842	.863	.619	200
Resource Allocation Processes											
4. Structure of domestic demand											
a. Private consumption	.779	.720	.686	.667	.654	.645	.625	.617	.624	-155	
b. Govt. Consumption	.119	.137	.134	.135	.136	.138	.144	.148	.141	022	

c. Food consumption	.414	.392	.315	.275	.248	.229	.191	.175	.167	-.247	250
5. Structure of Production											
a. Primary share	.522	.452	.327	.266	.228	.202	.156	.138	.127	-.3	200
b. Industry share	.125	.149	.215	.251	.276	.294	.331	.347	.379	.254	300
c. Utilities share	.300	.338	.385	.403	.411	.415	.416	.413	.386	.086	
6. Structure of trade											
a. Exports	.172	.195	.218	.230	.238	.244	.255	.260	.249	.077	150
b. Primary exports	.130	.137	.136	.131	.125	.120	.105	.096	.058	-.072	1.000
c. Manufactured exports	.011	.019	.034	.046	.056	.065	.086	.097	.0131	.0120	600
d. Services exports	.028	.031	.042	.048	.051	.053	.056	.057	.059	.031	250
e. Imports	.205	.218	.234	.243	.249	.254	.263	.267	.250	.045	250
Demographic and Distributional Processes											
7. Labor allocation	.712	.658	.557	.489	.438	.395	.300	.252	.159	.553	.400
a. Primary share	.78	.091	.164	.206	.235	.258	.303	.325	.368	.290	.325
c. Services share	.210	.251	.279	.304	.327	.347	.396	.423	.473	.263	450
8. Urbanization	.128	.220	.362	.439	.490	.527	.601	.634	.658	.530	250
9. Demographic transition											
a Birth rate	.459	.446	.377	.338	.311	.291	.249	.229	.191	-.268	350
b. Death rate	.209	.186	.135	.114	.103	.097	.091	.090	.097	-.112	150
10. Income distribution											
a. Highest 20%	.502	.541	.557	.554	.547	.538	.511	.494	.458	-.044	
b. Lowest 40%	.158	.140	.129	.127	.128	.130	.138	.143	.153	-.005	

* Approximately \$70. Mean values of countries with per Capita GNP under \$ 100 vary slightly according to composition of the sample.

+Approximately \$ 1.500. Mean values of countries with per capita GNP over 51.000 vary slightly according to composition of the sample.

Source: Holls B. Chenery and Morris Syrquin: Patterns of Development. J950-1970 (New York: Oxford university press for the World Bank. 1975). Pp. 20-21

It can be easily seen from the table that the variables behave in the expected manner as they have been hypothesized. viz, savings rise from 10% of GNP at income below \$100 to 23% at incomes above \$1000. Investment rises from 14% to 23%. Primary sector share of production falls from 52% to 13% and primary sector employment falls from 72% to 16% of labour force and so on. (All these changes will be discussed in detail in the subsequent sections).

Chenery (1979) presented another best-known model of structural change and examined again the patterns of development for numerous Third World Countries during the post war period. His empirical studies, both cross-sectional (among countries at a given point in time) and time series (over long periods of time) of countries at different levels of per capita income led to identification of several characteristic features of the development process which included the shift from agriculture to industrial production, the steady accumulation of physical and human capital, growth of cities and urban industries and the decline in family size etc.

Hence it can be inferred that empirical structural change analysts emphasize both domestic and international constraints on development. The domestic ones include the economic constraints such as a country's resource endowments and its physical and population size as well as institutional constraint

such as govt. Policies and objectives. International constraints include access to external capital, technology and international trade. According to them, though major hypothesis of structural change model is that development is an identifiable process of growth and change whose main features are similar in all countries, yet the model recognises the differences that can arise in most countries depending upon their particular set of circumstances which are beyond the control of an individual developing nations. And these patterns, according to them, may be affected by the choice of development policies pursued by LDC governments as well as international trade and foreign assistance policies of the developed nations. Hence structural change analysts are basically optimistic that the correct mix of economic policies can generate beneficial patterns of self sustaining growth.

1.3 PATTERNS OF SECTORAL CHANGE

Changes in the sectoral composition of production or output are the most prominent feature of structural transformation. Modern analysis of sectoral transformation originated with fisher (1935, 1939) and clark (1940) and dealt with sectoral shifts in the composition of the labour force. They employed the distinction between primary, secondary and tertiary production as a basis of a theory of development. Countries are assumed to start as primary producers and then, as the basic necessities of life are met, resources shift into manufacturing or secondary activities. Finally, with rising income, more leisure and an increasingly saturated market for manufactured goods, resources move into service or tertiary activities producing 'commodities' with a high income elasticities of demand.

Now, obviously, the developing countries get identified with primary production and the more developed countries with the production of manufactured goods, and the matured developed economies with a high percentage of their resources in the service sector.

It has been estimated that commodities produced in the primary sector have an income elasticities of demand less than those produced by the secondary sector. Moreover, the goods and services produced in the tertiary sector have income elasticity of demand greater than those of the commodities produced in the primary and the secondary sectors. Thus, with the growth of incomes, the pattern of demand will first shift in the favour of the secondary sector relative to the primary and finally in favour of the tertiary sector. As a result, as the economy develops, the number of persons employed and the income generated in the primary sector falls relative to that in the secondary sector. In the end, the same phenomenon occurs in favour of the tertiary sector vis-a-vis the secondary sector. This will naturally entail changes in the structure of the economy. The economic structure will shift from primary production to secondary and finally to tertiary. However, it must be kept in mind that it is not necessary that this decline occurs in absolute terms. It normally occurs in relative terms. In other words, the number of people engaged in the primary sector may increase in absolute terms, but its share in total employment in percentage terms will decline.

One point to be noted here is the fact that one country produces predominately agricultural products while another produces mainly manufactured goods need not imply that they are at different stages of development on any of the conventional definitions of development because such an association would also ignore the different types of service activities, which may exist at different stages of a country's history. According to Katouzian (1970), there are three broad categories of service activities, and the determinants of resource allocation to service activities accompanying development may operate differently on each in an offsetting manner. Newer service activities linked with the growth of Leisure and high mass consumption tend to have a very high income elasticities of demand; services linked to the growth of manufacturing also grow but at a declining rate, and traditional services of the pre-industrial times decline. In short, tertiary production is an aggregation of many dissimilar service activities some of which are related to low per capita incomes and some to high per capita incomes.

Thus the same proportion of total resources devoted to services may be associated with very different levels of development.

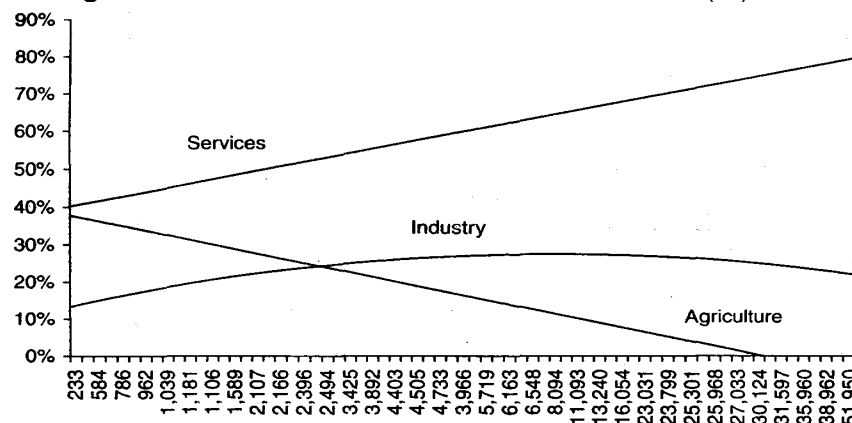
In the classic view of development outlined by Arthur Lewis in the 1950s, development occurs when surplus labour in agriculture becomes a labour pool for the development of light manufacturing, with its higher value addition and greater economics of scale. With increasing incomes, a service sector then develops catering to the growing manufacturing sector, as well as to the rising purchasing power of consumers. As an empirical observation, this view of development describes fairly well the change in the economic structure of what are now the developed economies. The model also fits well with the transformation of the several countries in East and South-East Asia. Whereas, for example, there was once a thriving garment industry in Hong Kong, China, the province's economy is now 97 percent services.

New patterns of employment correspond to the changing patterns of economic activity in developing nations. On the whole, sectoral employment shares in developing countries do indicate the expected pattern of declining employment in agriculture and increasing share in manufacturing and service sectors.

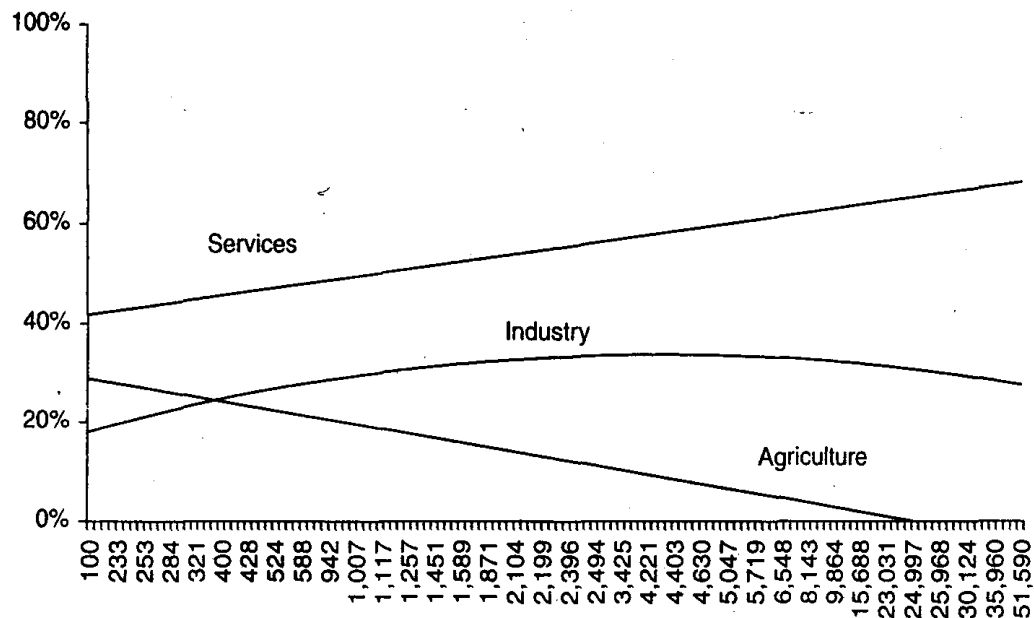
The changing pattern of the sectoral shares is also determined by the changing pattern of demand. Some studies find that income elasticities determine the sectoral composition of production and employment shares. With rising income levels, the demand for agricultural goods declines relative to that for manufactured goods and ultimately, the demand for services increases after a much higher level of income has been attained. This "demand side" argument contributes to the explanation for this shifting pattern of employment. Regarding the increasing share of the workforce in the services sector, the industrial sector uses the service sector as "intermediate inputs" along with the activities that were previously carried out by the manufacturing firms. For example in case of India, such erst while manufacturing services are "outsourced" to the firms in the service sector and attempts have been made to estimate the portion of this employment in services that could be attributed to manufacturing. In the 1980s, various authors have found out that this "outsourcing" of manufacturing activities have contributed to an increasing share of service sector jobs.

Having said all this, however, the fact remains that there is a good deal of empirical support for the Fisher-Clark view that the pattern of development across countries evidences many common characteristics, especially the shift of resources from agriculture to industry and to services. The following figure plots the relation between the level of per capita income and share of emp. in agriculture, industry and services across 69 countries in the year 2005 using simple regression analyses.

Figure 1 The distribution of the labour force 2005 (%)



Source. Data from the World Development Indicators (WDI) and the International Labour Organization (ILO) for 69 countries.



Source. Data from the World Development Indicators (WDI) and the International Labour Organization (ILO) for 141 countries.

The broad thesis of Fisher and Clark is confirmed. On average, in the low income countries, the share of employment in agriculture is over 40 percent while only 15 percent is employment in industry. By contrast, in the high income countries, less than 5 percent is employed in agriculture and nearly 30 percent in industry. The proportion of the labour force employed in services rises inexorably, but the nature of the service activities is different, petty services in low income countries, and sophisticated services in the high income countries.

Moreover, what is true of the sectoral distribution of the labour force is also true of the sectoral distribution of output, although the magnitude of the proportions differs because productivity differs markedly among sectors. It has been shown in table 2.

Table – 2

Structure of Production and Distribution of Gross Domestic Product (%)

Countries	Agriculture (%) of GDP)			Industry (% of GDP)			Manufacturing (% of GDP)			Services (% of GDP)		
	2000	2010	2014	2000	2010	2014	2000	2010	2014	2000	2010	2014
Low Income	34	25	32	21	25	22	12	14	9	45	50	47
Middle Income	11	10	10	36	36	35	21	20	22	53	55	56
Low and Middle Income	12	10	10	35	35	34	21	20	22	53	54	55
High Income	2	1	2	28	24	25	19	15	15	71	75	74

East Asia and Pacific	15	11	10	44	45	42	31	29	32	41	43	48
Europe and Central Asia	11	7	8	35	32	28	18	17	16	55	63	61
Latin America & Caribbean	6	6	5	30	31	30	18	17	14	65	63	65
Middle East and North Africa	13	-	11	43	-	37	13	-	14	44	52	-
South Asia	24	19	18	26	26	29	15	15	17	50	53	53
Sub-Saharan Africa	16	13	15	29	30	27	15	13	11	54	58	57

Source – World Development Indicators, 2012.

It can be seen from the table that in the process of development, there occurs a dramatic decline of the proportion of GDP generated by the primary sector. At the same time, it is counter balanced by a dramatic increase in the share of the industrial sector and in the share of service sector. Some explanatory factors which could be suggested for this are: the change in the composition of demand, population increases, or input substitution and factor cost changes that can tip the balance in favour of non-agriculture. Some of these factors are likely to be endogenously explained by other characteristics of a country or by systematic features inherent in its growth structure. [Yotopolous & Nugent (1976)].

Regarding determinants of sectoral change, the pertinent question that arises is: whether the pattern of sectoral change is uniform for all countries or varies depending on the type of the country. According to them, the operational approach to this question is to define the type of country on the basis of some quantifiable characteristics.

Chenery and Taylor (1968) defined the type of the country in terms of three variables: one that reflects a country's rate of resource mobilization for growth I/GNP , i.e. the share of capital formation in GNP: and two variables on trade that reflect a country's relative endowments of natural resources, E_p/GNP , the share of primary exports in GNP and E_m/GNP , the share of manufacturing exports in GNP. They have taken up the following non-linear relationships.

$$X_i = \alpha + \beta_1 \log Y + \beta_2 (\log Y)^2 + Y \log N + \delta_1 \log \frac{1}{GNP} + \delta_2 \log \frac{E_p}{GNP} + \delta_3 \log \frac{E_m}{GNP}$$

X is the structural variable, Y is the income, N is the population size.

Estimating the proportions of GNP originating in the primary sector X in industry X & in services, X on the basis of pooled cross section and time series data for 54 countries during the period 1950-63 they obtained the results given in the table below

14
Table: 3

Structural Indicator	Normal value of Structural Indicator at Per Capita GDP Level of						Proportion of change Completed by Per Capita GDP of	Timing Classification	
	\$50 (1)	\$100 (2)	\$200 (3)	\$400 (4)	\$800 (5)	\$2,000 (6)	\$200 (7)	\$100 (8)	(9)
1. Gross National Saving as Percent of GNP	7.8	11.0	14.1	17.1	19.9	23.4	40	78	Early
2. Gross Domestic Investment as Percent of GDP	12.7	14.8	17.1	19.4	21.8	25.2	35	73	Early
3. Capital Inflow as Percent of GDP	4.9	3.8	3.0	2.4	2.0	1.8	61	93	Early
4. Government Revenue as Percent of GDP	12.2	14.2	17.0	20.6	25.1	32.4	24	42	Late
5. Primary and Secondary Enrolment	17.5	36.2	52.6	66.9	78.9	91.4	48	67	Early
6. Adult Literacy Ratio	15.3	36.5	55.2	71.5	85.4	100.0	47	66	Early
7. Food Consumption as Percent of Total Consumption	61.9	56.1	49.9	43.0	35.9	25.6	33	52	Neither*
8. Gross Product of Primary Sector as percent of GDP	58.1	46.4	36.0	26.7	18.6	9.8	46	65	Early
9. Gross Product of Industry Sector as Percent of GDP	7.3	13.5	19.6	25.5	31.4	38.9	39	58	Early
10. Gross Product of Service Sector as Percent of GDP	29.9	34.6	37.9	39.9	40.5	39.3	85	100	Early
11. Exports as Percent of GDP	16.5	17.1	18.2	19.7	21.6	24.8	21	39	Late
12. Industry Exports as Percent of GDP	0.0	0.8	3.7	6.9	10.5	15.7	24	44	Late
13. Birth Rate	46.6	41.8	36.6	31.1	25.3	17.1	34	5	Neither*
14. Death Rate	20.5	15.2	11.4	9.3	8.9	10.9	93	114	Early

15. Urban Population as Percent of Total Population	6.9	20.0	33.8	45.5	55.3	65.1	49	68	Early
16. Primary Employment as Percent of Total Employment	84.2	74.0	57.4	43.9	29.0	7.1	35	52	Neither*
17. Industry Employment as Percent of Total Employment	6.5	9.9	15.3	23.4	31.1	40.5	26	50	Neither*
18. Service Employment as % of Total Employment	19.5	21.8	27.3	32.7	40.0	52.4	24	40	Late

Notes: See text for method estimation.

*“Neither” indicates neither “early” or “late”

Source Chenery, H.B., H. Elkington and C. Sims' (1970). "A uniform Analysis of Development Patterns." Economic Development Report No. 148 (July) Project for Quantitative Research in Economic Development. Cambridge: Harvard Center for International Affairs. Table C, pp. 42-43. Quoted in Yotopoulos & Nugent (1976). Economics of Development.

The pattern of sectoral change in the process of growth is reflected in the co-efficient of income. The dramatic decline of agriculture's share & the rise of industry's share are portrayed by comparing the estimates of for primary and for industry obtained from equation I in the table. The value of for primary is 0.02 and for industry is 1.50. The greater the difference between sectors with respect to this coefficient and therefore the expected growth rates, the greater should be the amount of sectoral change as income rises. Judging by the (absolute) size and significance of the coefficients of other three variables, the share of primary exports in GNP (E_p/GNP), turns out to be the most important variable. This variable may be interpreted as reflecting the impact of natural resources endowments. Going by the neoclassical version of comparative advantage, they say, countries with substantial comparative advantage, they say, countries with substantial endowments of natural resources may undergo less sectoral changes. They may even cancel structural changes, which would otherwise be considered normal or perhaps even beneficial (for more details see Klugent & Yotopoulos (1976)).

1.4 CAPITAL FORMATION

Capital formation is often considered to play a lead role in economic performance/development of the developing countries. This is on account of the reason that the supply of cooperative factors in these countries often depends on the supply of capital. In narrow sense, it denotes investment in physical or material capital only whereas in the wide sense it includes investment in human capital as well. This section of the lesson deals with the physical investment while human capital will be discussed in the next section.

1.4.1 Accumulation of Physical Capital

Physical investment (gross capital formation) takes many forms : buildings, machinery and equipment; improvements to property; and additions to inventories. Investment is financed out of domestic savings or external savings the latter being limited and generally more volatile. Countries that have high savings and investment rates are likely to have high rates of economic growth. Growth is also spurred by improved efficiency brought on by technological advances and investment in people, such as through better education and health care. To sustain growth, Govt-policies must create a climate that encourages productive investment. The following table provides an overview of gross savings and gross capital formation in different regions in the recent years.

Table – 4**Gross Savings and Capital Formation in Different Regions % of GDP**

Countries/Regions	Gross Savings			Gross Capital Formation			Average Annual Growth %	
	2000	2008	2015	2000	2008	2015	1990-2000	2000-15
Low Income Countries	19	–	15	19	27	26	5.5	19.4
Middle Income Countries	25	31	30	24	30	19	2.6	9.6
(a) Lower Middle Income	23	41	28	22	37	27	2.8	8.1
(b) Upper Middle Income	25	23	32	24	24	31	2.6	9.2
Low and Middle Income Countries	25	31	30	24	30	29	2.6	9.6
East Asia & Pacific	34	48	36	31	40	32	7.7	6.4
Europe and Central Asia	26	24	22	20	25	20	-11.2	1.1
Latin America & the Caribbean	17	22	17	20	23	20	5.4	5.0
Middle East and North Africa	-	-	-	24	28	27	1.2	6.3
South Asia	25	35	31	23	36	30	6.5	10.1
Sub-Saharan Africa	16	16	14	17	23	21	4.6	8.3
High Income Countries	22	19	22	22	21	21	3.5	0.9

Source : World Development Indicators, 2010, 2012, 2016.

It can be seen from the table that in the recent years, East Asia and the Pacific has had the highest investment rate, averaging 32% of GDP in 2000-2015. It has been able to retain this rate of investment even in 2015. South Asia invested 30% of its GDP. Even sub-Saharan Africa at 21% of GDP in 2015 i.e. the lowest investment rate among developing regions, exceeded the rate of 21% in high income economies. Total investment in developing regions in 2008 was 5.2 trillion, about two-thirds that in high income countries.

The following table (5) provides the list of countries with highest average gross capital formation.

Table 5, Highest Average Gross Capital Formation

Rank	Country greater than 1 million in population	% of GDP (1995-2008)	% of GDP (2015)
1.	China	41	46.0
2.	Lesotho	39	-
3.	Mangolia	34	48.6

4.	Vietnam	34	28%
5.	Iran, Islamic Republic	33	33.0
6.	Botswana	33	31.0
7.	Estonia	31	25.0
8.	Azerbaijan	31	29%
9.	Korea, Rep.	31	28%
10.	Honduras	30	25%

Atlas of Global Development 2011; World Bank (2016)

In India also, gross capital formation as share of GDP was 40% in 2004-2008, whereas it was 18% in USA and 19% in Brazil. So far as different categories of countries are concerned, gross capital formation as share of GDP in 2004-2008 was 27 percent in low income countries, 30 percent in middle-income countries, 30 percent in low and middle income countries and was 21 percent in high-income countries.

Investment has grown fastest in South Asia. Between 2000 and 2008, it has been increasing at an average rate of 13.8 percent per year. It has been the slowest in Latin America and the Caribbean, averaging 5.7 percent a year between 2000 and 2008. Investment declined in 11 countries between 2000 and 2008. Among the top 10 countries with the highest average investment rate between 1995 and 2008, 2 were from sub-Saharan Africa. In China investment grew at an average of 12 percent a year between 2000 and 2008.

Now one point to be noticed here is that though investment replenishes assets used up in production and increases the total capital stock and without it there would not be sustainable economic growth but at the same time, high rates of investment alone do not ensure rapid economic growth. For that a good investment climate is required. Govt. policies play a key role in shaping the investment climate. They influence the security of property rights, the effectiveness of regulation, the impact of taxation, the quality and accessibility of infrastructure, and the functioning of financial and labour markets. The quality of the investment climate also contributes strongly to increased productivity and employment criterion, both necessary for poverty reduction.

Economies in Europe and central Asia were the most active reformers for the sixth year in a row. Between 2008 and 2009, 96 percent of countries in the region made at least one positive reform to make doing business easier, while 75 percent reformed in South Asia followed by East Asia and Pacific (71%). Even in Sub-Saharan Africa 63 percent of countries made at least one positive reform.

Now, although China and some of the other "tigers" in East Asia and Pacific have attained spectacular growth rates, high levels of investment do not guarantee high growth rates. Investment produces growth. Investment may also chase growth. More investment is likely in place where high returns are possible. Over the period 1995 through 2008, most developing regions invested an average of 19 to 36 percent of their GDP each year. The results have varied, from Latin America and the Caribbean where an investment ratio of 20 percent produced growth of only 3.2 percent to South Asia, where an investment ratio of 28 percent resulted in annual growth of 6.4 percent. Sub-Saharan Africa is an interesting exception: an investment ratio of 19 percent led to an annual growth rate of 4.3 percent, on par with or better than several regions with higher investment ratios.

1.4.2 Accumulation of Human Capital

According to modern growth theory, the accumulation of human capital is an important contributor to economic growth. Numerous cross country studies extensively explore whether

educational attainment can contribute significantly to the production of overall output in an economy. Several micro studies that look into this problem have shown a consistently positive relationship between the education of the workforce and their labour productivity and earnings. The general finding is that individuals with more education tend to have better employment opportunities, greater earnings and produce more output than those who are less educated. These findings provide a strong rationale for governments and households to invest substantial portions of their resources in education, with the expectation that higher benefits will accrue over time. In this context education is deemed an investment, equipping individuals with knowledge and skills that improve their employability and productive capacities, thereby leading to higher earnings in the future.

Although the conceptual definition of human capital is clear, its measurement is difficult, because it is practically impossible to observe individual skill and even harder to design a metric that is comparable across individuals and countries. Thus various proxy measures of human capital have been proposed in the empirical literature, such as literacy rates, school enrolment ratios, average years of schooling etc. Govt. expenditure on education as a percentage of GDP is also taken as a measure from the investment point of view. The table given below presents brief overview of the recorded of human capital accumulation in the developing countries as compared to developed countries.

Table 6 : Various measures of Human Capital

Regions	% of population (age 15-64)		Net Enrolment Ratio (%)		Age		Public expenditure on education [% of GDP (2010)]		Adult Literacy rate 2008- 2017 (% of ages 15 & older)	
	2014	2017	Primary	Secondary	Primary	Secondary	2010	2017	Male	Female
Low Income Countries	54	55	80	79.3	37	33.6	3.8	4.0	69	53
Middle Income	67	67	90	89	67	60	4.4	–	89	80
(a) Lower Middle Income	64	64	87	87.8	60	59.4	4.0	–	83	70
(b) Upper Middle Income	71	70	94	95.2	81	81.7	4.8	4.3	97	93
Low and Middle Income	65	65	88	–	62	–	4.1	–	85	76
East Asia & Pacific	72	70	94	95.9	79	79.5	3.8	–	97	94
Europe and Central Asia	68	66	96	96.1	90	91.1	4.4	4.9	99	99
Latin America & the Caribbean	67	67	92	93.1	76	76.9	4.4	4.5	94	93
Middle East and North Africa	64	65	94	93.1	72	70.4	4.8	–	86	73

South Asia	64	65	90	89.5	-	59.5	2.5	3.4	79	62
Sub-Saharan Africa	54	54	77	77.6	34	34.4	5.0	4.6	72	57
High Income Countries	67	66	96	96.5	90	92.5	5.1	5.3	99	99

Source : World Development Indicators 2012 and 2016, 2018

It can be seen from the table that there is not so much difference in developing and developed countries so far as % of population in age group of 15-64 is considered. But if we look at enrolment ratios both these ratios are low in developing countries (Low and Middle income countries), particularly in case of secondary education. It is only 56 percent in developing countries as compared to 88 percent in developed countries. Similar is the case with the literacy rate. It is 85% in developing countries as compared to 99% in developed countries. So far as public expenditure on education is concerned, it is quite distressing that South Asia is spending only 2.8% of GDP on education i.e. half of the expenditure made by the developed countries.

Now another widely used measure of human capital is average years of schooling i.e. educational attainment which provides a reasonable proxy for stock of human capital measure. This is widely used because (i) this can be measured for the entire work force in most countries (ii) It is fairly comparable across countries and (iii) It is the most commonly used measure of human capital in literature. Despite its limitation that it gives us only quantitative measure of human capital stock, it is most consistent and comparable country-level measure. This following table 7 presents average years of schooling data in developed, developing and different regions over the period.

Table 7. Average Years of Schooling Among Population aged 15 years and old & over

Region	1950	1960	1970	1980	1990	2000	2010	2014
World (146)	3.17	3.65	4.45	5.29	6.09	6.98	7.76	12.2
Developed Countries (24)	6.22	6.81	7.74	8.82	9.56	10.65	11.03	15.0
Developing Countries (122)	2.05	2.55	3.39	4.28	5.22	6.15	7.09	11.7
East Asia & Pacific (19)	1.77	2.50	3.66	4.84	5.60	6.82	7.94	12.7
Europe & Central Asia (20)	4.83	5.56	6.69	7.88	8.85	9.13	9.62	13.6
Middle East and North Africa (18)	0.76	1.07	1.78	3.04	4.58	5.90	7.12	-
Latin America & the Caribbean (25)	2.57	3.07	3.82	4.60	5.79	7.13	8.26	14.0
South Asia (7)	1.02	1.16	1.59	2.10	3.41	4.22	5.24	11.2
Sub-Saharan Africa (33)	1.28	1.52	2.02	2.76	3.93	4.62	5.23	9.6

Source : Barro & Lee, 2010, 2014 figures are from HDR, 2016.

Figure in Brackets are the number of countries included in the region.

It can be seen from the table that average number of years of schooling in the world is 7.76 years. A person in the developed countries has 11.03 years i.e. Highest length of schooling while a person in Sub-Saharan Africa has an average length of schooling equal to 5.23 years. The situation in South Asia, with 5.24 years of schooling, is not much better than in Sub-Saharan Africa.

But so far as developing countries as a whole are concerned they have some achievements which can be considered impressive. The average years of schooling among the total population aged 15 years and above in developing countries increased significantly from 2.1 years in 1950 to 7.1 years in 2010.

In middle East and North Africa regions, average years of schooling have increased by almost 7 times since 1950. In South Asia, for instance, average years of schooling among the total population aged 15 and over rose by five times ie. From 1.02 years in 1950 to 5.24 years in 2010. While higher secondary and tertiary completion and enrollment ratios account for most of the improvements in years of schooling in advanced countries, most of the improvements in developing countries are accounted for by higher primary and secondary completion and enrollment ratios. (Barro & Lee, 2010).

If we see the educational attainment among males and females in developing countries, since 1950, a significant progress has been made by these countries in terms of reducing gender inequality in education among the overall population over age 15. The ratio of female to male average years of schooling increased from around 57.7% in 1950 to 80.3% in 1990 and 85.9% by 2010. (Barro & Lee, 2010). Despite these major developments, it can be seen from the table that the gap between developing advanced countries in average years of schooling among the overall population over age 15 remains high and it has narrowed by only less than 1 year in the post 60 years (the gap in 1950 was 4.17 years which has got reduced to 3.94 years only). One factor that continuous increase in the proportion of the population in advanced countries reaching higher levels of education.

After observing that there is a wide gap between industrialized/developed and developing countries in terms of years of schooling, a pertinent question arising here is ! can developing countries catch up with industrialized or developed countries in increasing human capital? It can be seen from the table above, that the world's power regions-such as Sub-Saharan Africa and South Asia-which initially had very low human capital in 1950, have made remarkable progress in increasing average years of schooling over the last 6 decades, growing at an annual rate of 2.89% and 2.26% respectively. Average years of schooling has been increasing at the fastest rate in the Middle East and North Africa, growing at an annual rate of 3.05% on the other hand, the growth rate in human capital in developed countries is measuring at 0.98% which is the alowest growth rate among the eight regions. This suggests that further increases in years of schooling are harder for countries that have already achieved high levels of education because the quantity of human capital cannot go on increasing and thus, its growth has to eventually slow. According to a recent research by Asian Development Bank, (2010), convergence in human capital van be expected because the time spent for schooling has an upper limit-people cannot study forever. Data over the past few decades, according to it, point to the eventual convergence in human capital.

Self Assessment Questions – I

1. Name the four categories of countries according to income levels.

2. What do you mean by capital formation?

1.5 Demographic Changes

Like economic growth, population growth is also a modern phenomenon. Between the beginning of the christian era and A.D. 1650, the average rate of increase in the world's population was little more than one twentieth of 10% per year. By 1650, the world's population had reached about 550 million which implies an annual growth rate of one tenth of one percent. Between 1650 and 1750, using carr-saunders' world population estimates, the growth rate was 0.3% per year and during the four succeeding 50 year period it was successively 0.4 %, 0.5% and 0.6% and 0.8% respectively. A spectacularly fast rise then began in about 1950, caused largely by technical and medical aid to LDCs from the U.S. Public Health Service and the World Health Organisation that greatly reduced deaths from infant diseases and the 'big killers'- tuberculosis, malaria, small pore and typhoid fever. By 1960, the annual rate of world population growth was about 1.8% By 1970, it was probably 2.0 % but the rate was no longer rising. Today the world's population growth rate remains at a historically very high rate of 1.5 percent per year.

Turning from percentage growth rates to the absolute numbers, worlds population was about 250 million in A.D.I. From A.D.1. to the begining of the industrial revolution around 1750, it tripled to 728 million people. During the next 200 years (1750-1950), an additional 1.7 billion people were added to the earth's numbers. But in just four decades i.e. 1950-1990, world population more than doubled again being the total figure to 5.3 billion.

The relationship between annual percentage increases and time it takes for a population to double in size is shown in the rightmost column of the following table 8.

Table - 8
Estimated World Population Growth through History

Year	Estimated Population (In millions)	Estimated Annual Percentage Increase in the Intervening Period
10,000 B.C	5	-
AD. 1	250	0.04
1650	545	0.04
1750	728	0.29
1800	906	0.45
1850	1171	0.53
1900	1608	0.65
1950	2576	0.91
1970	3698	2.09
1980	4448	1.76
1990	5292	1.73
2000	6090	1.48

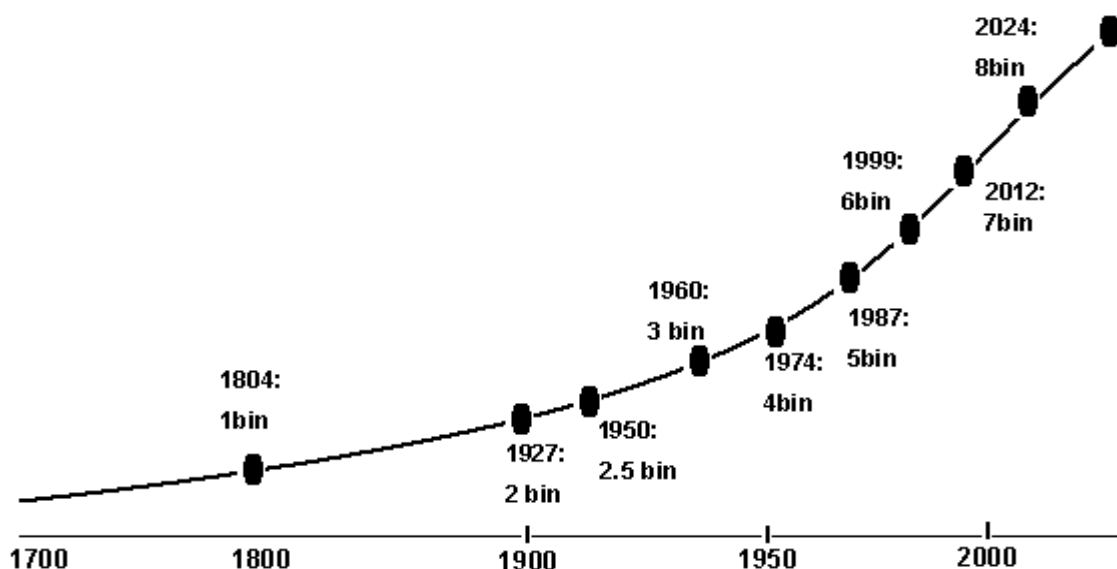
2006	6538	1.4 (w)
2010	6894	1.2 (w)
2014	7261	1.1 (w)
2025	8131.0	1(w) (2014-25)

Source: M.P Todaro.(1997) Economic Development & World Development Indicators 2012.

It can be seen from the table that before 1650, it took nearly 36,000 years or about 1400 generations, for the world population to double. Today in less than 47 years, little more than one generation, world population will double. Moreover, whereas it took almost 1750 years to add 480 million people to the world's population between A.D.I. and the onset of industrial revolution, at current growth rates this same number of people is being added to the earth's population every six years.

In short, population growth today is primarily the result of a rapid transition from a long historical era characterized by high birth rates and death rates to one in which death rates have fallen sharply but birth rates, especially in developing countries, are only just beginning to fall from their historical high levels. The following figure illustrates How rapidly population grew after 1950 in comparison with two centuries before that.

Fig 2: Growth of World's Population (1700-2024)



Source: United Nations World Population Prospects, Deutsche Stiftung Weltbevölkerung

For further information please visit: www.knowledge.all.and.com

1.5.1 Regional Distribution of World's Population

The world's population is very unevenly distributed by geographic region. Geographical distribution - It is of utmost importance to understand that starting from around 1700 until well into this century, the populations of Europe and North America (most of the modern developed world) grew not only in absolute terms, but also relative to the peoples of those regions we know today as the developing world.

Table 8

Geographical distribution of the world population

	1650	1750	1800	1850	1900	1933	1995	2012	2016
World	0.545	0.728	0.906	1.171	1.608	2.057	5.716	7.0	
Population (billions)									
Percentages									
Europe	18.3	19.2	20.7	22.7	24.9	25.2	12.7	12.0	9.9
North America	0.2	0.1	0.7	2.3	5.1	6.7	5.1	5.0	4.9
Oceania	0.4	0.3	0.2	0.2	0.4	0.5	0.5	0.5	0.5
Latin America	2.2	1.5	2.1	2.8	3.9	6.1	8.4	9.0	8.6
Africa	18.3	13.1	9.9	8.1	7.4	7.0	12.8	15	16.4
Asia	60.6	65.8	66.4	63.9	58.3	54.5	60.5	60.0	59.7

Source : Carr-Saunders [1936, fig. 8] and Demographic Yearbook (United Nations [1995]). Quoted in Debraj Ray (1998).

The table gives more emphasis to earlier centuries. It can be seen from the table that population in Africa declined during the period 1650-1933 whereas it increased in North America. It may be attributed to outmigration from Africa and in North America. At the same time, despite from Europe, her share of world's population rose steadily over this period. In 1650, the population of Europe was about 100 million but in 1933, even allowing for emigration, it swelled to over 500 millions. On the other hand, the population of Asia, Africa and Latin America combined was 81.1 % in 1650, but in 1933 it had dropped to 67.6%.

1.5.2 The Demographic Transition

The process by which fertility rates eventually decline to replacement levels has been portrayed by a famous concept in economic demography called the demographic transition which attempts to explain why all contemporary developed nations have more or less pass through the same three stages of modern population history. Before their economic modernization, these countries for centuries had stable or very slow growing populations as result of a combination of high birth rates and almost equally high death rates. This was stage of demographic transition. Stage II began to occur when modernization, associated with better public health methods, healthier diets, higher incomes etc. led to a marked reduction in mortality that gradually raised life expectancy from under 40 years to above 60 years. However the decline in death rates was not immediately accompanied by a decline in fertility. As a result the growing divergence between high birth rates and falling death rates led to sharp increase in population growth compared to past centuries. Stage II thus marks the beginning of the demographic transition (the transition from stable or slow growing populations first to rapidly increasing numbers and then to declining rates). Finally, Stage III was entered when the forces and influences of modernization and development caused the beginning of a decline in fertility eventually falling birth rates converged with lower death rates, leaving little or no population growth.

The following figure (3) depicts the three historical stages of the demographic transition in Western Europe.

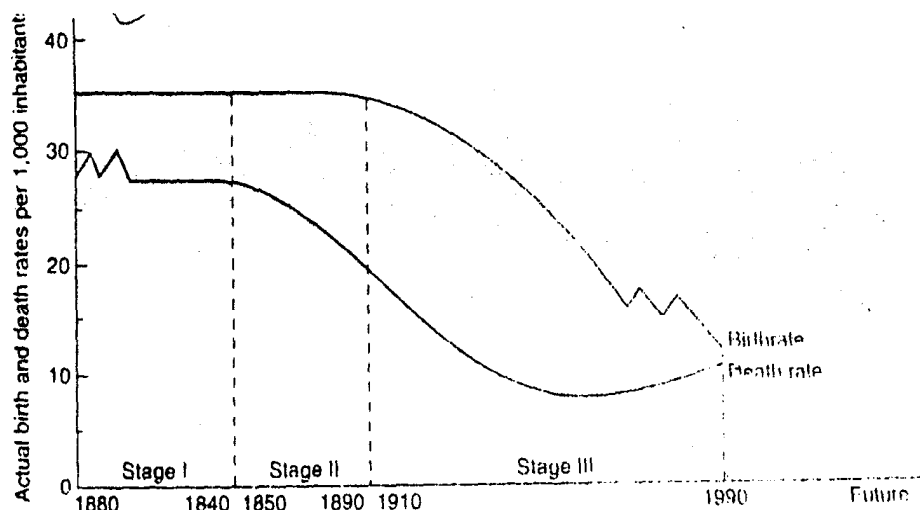


FIGURE 3 The Demographic Transition in Western Europe.

When the developed countries of western Europe began their process of modern economic nineteenth century, the wide birth rate (number of births per 1000 inhabitants) was perhaps 35/1000, while the death rate was approximately 30/1000. Life expectancy was below 30 years. During the second half of the eighteenth century, death rate began to fall slowly in France and England and they began to fall elsewhere in western Europe a little later. Birth rates began to fall only after a long lag—a century or so in France and England, 75 to 50 years elsewhere—but because the fall in death rate was so gradual, nowhere in Europe did the rate of natural increase rise much above 0.5% per year for long. This was stage 1. Stage II, the beginning of western Europe's demographic transition, was initiated around the first quarter of the nineteenth century by slowly falling death as a result of economic growth and improvement in nutrition, investments which were made in better sanitation and other public health measures, while birth rates remained virtually unchanged for perhaps two generations. The population growth rate increased to about 1% or slightly more. Stage III marked the decline in birth rates which did not really begin until late in the nineteenth century, with most of the reduction many decades after modern economic growth had begun and long after death rates began their descent. But since the initial level of birth rates was generally low in western Europe as a result of either late marriage or celibacy, overall population growth seldom exceeded the 1% level, even at their peak. By the end of western Europe's demographic transition in the second half of the twentieth century, the relationship between the birth and death rates that marked the early had reversed, with birth rates fluctuating and death rates remaining fairly stable or rising slightly. Birth rates and death rates, once again, were very close to each other and population growth was again slow.

1.5.3 The Recent decline in Population Growth Rates

A significant recent drop appears to have taken place in the rate of growth of world population from 1.4 percent in 1990-2000 to 1.2 percent in 2000-2010. The trend is evident in almost all areas of the world except Europe central Asia where it remains the same. So most countries entered Stage II of the demographic transition.

The following table 9 shows the magnitude and rate of growth of population in different regions of the world in the recent periods. It also shows the birth rates and death rates.

Table 9. Population and Growth rates of Population

Region/Countries	Population				Average Annual Growth Rate of Pop.			Crude death rate 2000-2010-2016 (per thousand People)			Crude birth rate 2000-2010-2016 (per thousand People)		
	2000	2010	2014	2017	1999-2000	2000-2010	2000-2017	2000	2010	2016	2000	2010	2016
Low Income	643.7	796.3	622	732.4	2.0	2.1	2.7	11	11	10	29	33	35
Middle Income	4424.5	4970.8	5239	–	1.2	1.2	–	8	8	–	18	19	–
Lower Middle Income	2146.7	2518.7	2879.1	2972	1.1	1.6	1.6	8	8	7	17	24	22
Upper Middle Income	2277.9	2452.1	2360.8	2576.4	1.4	0.7	0.8	7	7	7	20	14	14
Low and Middle Income	5068.2	5767.2	5862	–	1.6	1.3	1.0	9	8	–	23	21	–
East Asia & Pacific	1813.8	1961.6	2020.7	2314.4	1.2	0.8	0.7	7	7	7	17	14	14
Europe and central Asia	398.5	405.2	264.4	–	0.2	0.2	0.4	11	11	10	12	15	12
Latin America & Caribbean	514.3	582.6	525.2	644.1	1.6	1.2	1.2	6	6	6	22	19	17
Middle East and North Africa	277.4	331.3	357.3	444.3	2.2	1.8	2.0	6	5	5	26	23	23
South Asia	1398.0	1633.1	1721.0	1788.4	1.9	1.6	1.5	9	8	7	27	23	20
Sub-Saharan Africa	663.3	853.4	973.4	1061.4	2.6	2.5	2.7	17	13	9	39	27	36
High Income Countries	1049.6	1127.4	1398.8	1249.1	0.7	0.7	0.7	9	8	9	12	12	11
World	6117.8	6894.6	720.7	–	1.4	1.2	1.0	9	8	8	22	20	19
	(w)	(w)	(w)	(w)	(w)	(w)	(w)	(w)	(w)	(w)	(w)	(w)	(w)

Source – World Development Report 2002 and World Development Indicators, 2012, 2016, 2018.

It can be seen from the table that average annual rate of growth of population has increased in low income countries slightly. So far as middle income economies are concerned, it has remained the same because of the reason, while in lower middle economies, it has increased by 0.5% but in upper middle economies. It has reduced by 0.7%. Taking the developing countries as a whole, the rate of population growth has declined to 1.3% in 2000-2010 as compared to 1.6% in 1990-2000. Region wise also all the regions except Europe and central Asia, it has declined. But in high income countries it has remained the same. Both birth rates and death rates have also declined. It can be seen from the table

that there has been sharp decline in birth rate of Sub-Saharan Africa. In other regions also, birth rates have declined except for Europe and central Asia. So declining birth rates have led to decline in the population growth rate in developing countries as a whole.

1.6 URBANIZATION

The most profoundly wrenching upheaval of the twentieth century has been the spectacular growth of the urban population in the world. Although the signs of counter-urbanization have been found by champion (1989) in USA and other developed nations, the world's population is becoming increasingly urban. About 2.3 billion population was living in urban areas by mid 1990. In percentage terms, as compared to 30 percent in 1950, 43 percent of world's population lived in urban areas by mid 1990s. From 1970 to 1990, urban population grew at the rate of 3.8 percent per annum, while rural population grew at the rate of 1.2 percent per annum. Projected demographic trends indicated continuing urban growth and it is estimated that by the year 2025, 60 percent of the world's population will be living in urban areas i.e. a total of 5.2 billion dwellers in urban areas.'

In recent years, marked urbanization has also started to sweep the developing countries and their pace of urban growth has been truly dramatic during the last 50 years. By 1990, the share of developing countries in total urban population had increased to 6.1 percent and by the year 2025, developing countries are estimated to have four times as many urban dwellers as in developed countries i.e. 77 percent of total urban dwellers will be living in the developing countries. According to United Nations' projections, the number of cities with 10 m or more inhabitants will be 26 in 2010, of which 21 will be in the developing countries. The following two tables 2.7 & 2.8 reflect the broad patterns of urbanization. Table 10 presents the size of the urban population in major world regions and Table (11) presents the data in percentage terms.

Table-10

Size of urban population in major world regions and selected developing countries, 1950-2018
(in thousand)

	1950	1960	1965	1970	1980	1990	2000	2010	2014	2018
World Total	724147	1012084	1354357	1560860	1806809	2422293	3208028	3486326	3862750	4219817
More developed regions	44829	572730	702876	767302	834401	969226	1092470	929851	980403	993837
Less developed regions	275218	439354	651481	793558	972408	145306	2115558	2556475	2899725	3225980
Africa	31818	49506	80373	103032	132951	219202	345757	412990	455345	547602
Algeria	1948	2387	6529	9024	12065	19714	28021	23555	27304	30510
Egypt	6532	9818	14080	16346	19119	26604	37048	36664	38581	42438
Ghana	727	1575	2511	3193	4104	6830	10843	12524	14302	16517
Kenya	336	597	1145	1592	2223	4314	8125	9064	11304	13772
Morocco	2345	3412	5236	6551	8265	13126	19704	18859	20251	22903

Senegal	3595	5642	930	1070	1265	1896	3002	5450	6367	7690
Nigeria	3595	5642	9009	11449	14811	25665	45041	78818	83311	98611
South Africa	5261	7424	102281	11934	14154	20417	30109	31555	34722	38087
Sudan	572	1212	2571	3722	5305	10014	16551	17322	13231	14380
Zambia	428	742	1290	1704	2235	3802	6260	2733	6363	7664
Latin America	67511	106559	162355	198366	240592	343304	466234	468757	495857	526057
Argentina	11205	15172	18616	20436	22300	25818	28875	37552	39371	41056
Brazil	19064	32996	53253	66621	82172	119271	163027	169098	176059	182546
Chile	3558	5145	7048	8044	9116	11390	13460	15251	15872	15934
Colombia	4334	7665	13209	16946	21212	31102	41779	34758	36398	39956
Ecuador	911	1490	2384	2941	3707	5735	8564	9122	10101	10762
Guatemala	921	1317	1889	2269	2763	4193	6384	7111	8186	8804
Mexico	11348	18458	29706	37318	46660	71069	102293	86113	99018	104811
Nicaragua	397	609	930	1163	1457	2256	3396	3337	3516	—
Paraguay	474	631	853	1003	1205	1800	2708	3972	3893	—
Peru	2811	4265	7605	9619	11942	17498	24132	22688	24247	—
Venezuela	2739	5084	8048	9795	11776	16364	21125	27113	27299	—
Asia	217595	341738	482032	573994	688579	991212	1411847	1757314	2064211	2266131
Bangladesh	1786	2649	5150	6838	9531	18192	32095	46149	53316	60944
India	59247	76575	106994	127177	154524	235837	360688	364459	419234	460780
Indonesia	9362	13522	20395	25079	31293	49477	76612	102960	134869	147603
Iran	4087	7249	11601	14959	19209	30162	43138	53120	56932	61425
Iraq	1819	2937	5461	7272	9414	14525	20366	20822	24146	27724
Nepal	183	285	440	550	708	1245	2275	5559	5140	5848
Philippines	5695	8350	12387	15244	18902	29198	43988	45781	44105	49962
South Korea	4347	6843	12766	16682	20921	29915	37807	40325	-	—
Sri Lanka	1106	1772	2736	3359	4108	6090	8660	2921	3781	3871
Burma	1071	1677	2708	3393	4290	6776	10105	-	-	—
Turkey	4441	8181	13536	17106	21482	32684	45482	52728	55348	61552

Table - 11

Urban Population Share by Major World Regions, 1920-2010-2018

World Region	1920	1940	1960	1975	1990	2010	2014	2018
Europe	34.7	39.5	44.2	48.2	69.81	72.78	73.0	74.5
United States	41.4	46.2	58.0	65.4	75.0	-	81.0	82.3
Canada	-	-	-	-	77.0		82.0	-
Soviet Union	10.3	24.1	36.4	46.4	-	-	-	-
Oceania	36.5	40.9	52.9	57.1	70.70	70.22	71.0	-
East Asia	7.2	11.6	18.5	23.7	31.54	42.17	59.0	62.9
South Asia	5.7	8.3	13.7	17.4	27.22	32.08	34.0	35.8
Latin America	14.4	19.6	32.8	40.5	70.32	79.63	86.0	80.0
Africa	4.8	7.2	13.4	18.1	32.13	39.98	40.0	92.5
Developed Nations ^b	29.8	36.7	45.6	52.1	70.75	75.16	78.0	78.7
Less developed nations ^c	6.9	10.4	17.3	22.2	34.83	45.08	48.0	50.6
The World	14.3	18.8	25.4	29.7	42.62	50.46	54.0	55.3

a. Urban places are those with more than 20,000 inhabitants.

b. Includes Europe, the United States and Canada, the Soviet Union and Oceania.

c. Includes Asia. Latin America and Africa.

Sources: Fridbie (1976:table 4): UN (1969:table 31).

Inputs are transferred from primary sectors to secondary sectors. Due to shift from an agricultural to an industry based society, production gets multiplied and diversified as new products appear in the market workers leave the countryside and flock in great numbers to towns and factories. At times, the development of agriculture of itself may reduce the adsorptive capacity of agriculture for labour, thereby compelling sections of agricultural population to search for alternatives. The changing job preferences of the educated youth might fuel this phenomena further, urbanization as a process thus involves

- (i) Concentration of people at population densities higher than those associated with agricultural populations, with only rare exceptions on the either side;
- (ii) Population shift (migration from rural to urban areas)
- (iii) Occupational shift from agricultural to non-agricultural i.e. from primary sector to secondary sector; and

- (iv) Land use shift from agriculture to non-agriculture operations.

Rural to urban migration is considered to be the most important component of urbanization. It is generally that practically speaking, the causes of urbanization are effectively the causes of the migratory flows of people from countryside to urban areas. Rural urban migration is considered to be a consequence of the push factors and pull factors. Unemployment, rural poverty, unavailability of socio-economic facilities and services are commonly the economic pressures of push in the country side which compel the people to move to the cities in search of employment and better livelihood in the urban areas.

Urbanization and Economic Development

There are numerous factors which might influence the urban structure of a country viz. History, topography, natural resources and climate etc. but when it comes to explaining the location, size and growth of urban centres, economic factors turn out to be the most dominating ones. There are many questions relating to the phenomenon of urbanization. What explains the extent of transition from a traditional rural to a modern urban society? What role does migration play in the process? All rural emigrants driven by “push” conditions in the countryside or by “pull” conditions in the cities? is the third world overurbanized?

Historically, urbanization has been viewed as an important actor in the arena of economic change, chestrating the breakdown of the feudal order and taking societies to higher levels of social formation. This view is generally based on the industrial economic history of today's advanced countries where urbanization played a significant role in their development.

Urbanization is intrinsically connected, and irrevocably enlaced, with the development process as an essential strand in the contemporary economic system. According to Harris (1990), urbanization is said to be concomitant of economic development and the mechanism linking the two is the labour market. Economic development involves a sustained and radical shift in the composition of the national output of goods and services, from sectors of relatively low to high productivity. Hence, labour and other hand, rapid expansion of industry and trade and anticipated better economic opportunities, in terms of availability of more jobs and higher incomes in urban areas are the “pull factors for the population to migrate to the urban areas. But at times, these urban areas work only as a “mirage in the desert” for the rural poor masses. Despite the living conditions in urban areas, migrants continue to flock to the cities due to chances of job availability in this context, Hoselitz (1953) put forward an argument that nineteenth century developing Europe which was industrializing at that time, urbanization performed three functions providing the necessary labour to the expanding urban industrial relationships by inducing the labour shift from rural and agrarian areas, offering employment opportunities for the surplus labour in agrarian areas and simultaneously increasing labour productivity in rural areas, facilitating the diffusion of technological innovation across space. It helped in the growth of industrial centres and thus cities played the role of ‘engines of growth’ and were called “Generative.” So Far as the Third World cities are concerned, they have performed the first function i.e. attracting the large number of rural migrants but they have failed to perform the other two economic functions and instead of becoming “Generative’, the Third world cities have largely remained ‘ siphoning away resources from other areas.

It is in this sense that the term ‘urban explosion’, ‘urban inflation,’ over or hyper urbanization is used for the contemporary Third world countries. In these countries the urban population has increased beyond the optimum capacity resulting in “over urbanization.

It has been argued, of late, that global economic forces also leave their impact on urbanization, particularly the growth of large cities in the recent times. Globalisation of the world economy leads to shifts in demand, which, when taken in consonance with technological innovations, affect fluctuations in commodity prices and terms of trade. Consequently, comparative advantages are improved which cause relocation of industry. "Dominant world cities still found in developed countries are predominant centres of technological innovation and diffusion Management and finance and cities.

Among the non-economic explanations included, education works, both as a push Factor and a pull factor. Transport and communication links, which, break down geographical and cultural isolations, the quest for independence, the desire to break away from traditional constraints of social organisation and bright city lights also work as pull factors. There is also a great degree of social mobility which has been responsible for the breaking down of the caste and class barriers. Urbanization is thus a dynamic process that sets in motion a series of economic, social and other changes. it breaks the traditional barriers to change, changes attitudes and outlooks, activates dormant forces of development and sows new seeds of development.

Self Assessment Questions – II

1. What do you mean by demographic transition?

2. Which components are included in urbanization as a process?

1.7 Summary

The lesson introduces the concept of structural changes and the need for studying such changes in the process of economic development. Then it gives the detailed discription of the sectoral changes, (including the changes in the output and income growth) the demographic changes and the urbanization process accompanying the process of economic development.

1.8 Glossary

- Gross Domestic Product – It is defined as the total market value of all final goods and services produced within a country in a given period of time (usually a year).
- Gross Domestic Formation – A measure of total investment 'Gross' indicates that it is measured without subtracting any allowance for 'capital consumption'.
- Human Capital – The present discounted value of the additional productivity, over and above the product of unskilled labour, of people with skills and qualifications. Human capital may be acquired through explicit training, or on - the job experience.
- Urbanization – A situation where rate of growth of urban population is greater than the rate of growth of rural population. It includes increase in natural growth rate, increased migration from rural to urban

areas and due to reclassification of towns etc.

- Urban Explosion – It happens when urban population increases beyond the optimum capacity of the urban areas to bear this population. It is also called over or hyper urbanization.

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1.11 Model Questions.

- Q.1. Discuss in brief the need for studying structural changes.
- Q. 2. How does composition of output change during the process of economic development.
- Q. 3. Explain briefly the Theory of Demographic Transition.
- Q. 4. What is the role of urbanization in the process of economic development.

INCOME DISTRIBUTION AND ECONOMIC GROWTH

Structure

- 2.0 Objectives.
- 2.1 Introduction.
- 2.2 Measurement of Income Inequality.
- 2.3 Effects of Economic Growth on Income Distribution.
 - 2.3.1 Kuznet's Hypothesis.
 - 2.3.2 Evidential Support.
- 2.4 Effects of Income Distribution on Economic Growth.
 - 2.4.1 Positive Impact
 - 2.4.2 Negative Impact
- 2.5 Conflicts between Income Distribution and Growth produced by Market Mechanism.
- 2.6 Growth with Equality.
- 2.7 Policies for Growth with Equality.
 - 2.7.1 Kindleberger and Harrick's Suggestions.
 - 2.7.2 Ahluwalia and Chenery's observations.
- 2.8 Summary.
- 2.9 Glossary
- 2.10 References
- 2.11 Further Readings
- 2.12 Model Questions.

2.0 Objectives

After going through this lesson, you will be able to :

- (i) outline the indicators for measuring income inequality.
- (ii) explain the effect of economic development on income distribution and vice-versa.
- (iii) discuss the conflicts between distribution of income and economic growth.
- (iv) evaluate the trade off between income distribution and economic development.
- (v) describe the policies for growth with equality.

2.1 Introduction

In the last lesson, we studied about the structural changes which take place in the economy when economic development takes place. We observed that with the development, the economy shifts

from the agricultural sector to industrial sector and then to tertiary sector from the point of view of production and labour absorption. In this lesson we will study about the changes in the income distribution which also takes place with the development of the economy.

By distribution is meant the share of income received by each factor of production from the total output of an economy. The national income or national output of an economy flows back to the factors of production in the form of rent, wages, interest and profit. Generally, this distribution tends to be unequal so that a very large share goes to the owners of capital and land and to entrepreneurs, while the share of wage-earners is relatively smaller. Thus results in a gap between the haves and the have nots, income and standard of living.

For a long time, economists' sole observation was to ensure 'a steady rise in GNP and little or no attention was paid to the equitable distribution of income so generated. It was assumed that growth will automatically ensure distributive justice. It never dawned upon them that while growth is a necessary condition for ushering in a Just socio-economic order, it is not a sufficient condition. Empirical evidence from both developed and developing countries has brought forth the rather disconcerting fact that growth has led to concentration of incomes, thus widening the gap, between the haves and the have nots: in other words, the *assumption of growth automatically leading to a just social order is untenable*

The following table 1 shows the share of developing and developed economies in the total world income. Countries with average income of less than \$ 12, 196 in 2009 are classified as low and middle income, often referred to as developing economies. The countries having average income of \$ 12, 196 or more are classified as developed economies.

Table 1, Comparison of Incomes in developing and developed economies (2009)/2013

Regions/Countries	GNI,ppp (Current US \$)				GNI, Atlas method (current US \$)			
	2009	2013	2015	2017	2009	2013	2015	2017
High Income Countries	56%	52%	48%	46.66%	72%	68%	64%	64.22%
East Asia & Pacific	16%	21%	32%	33.02%	10%	14%	28%	30.15%
Europe & central Asia	7%	3%	23%	23.28%	5%	2%	28%	26.56%
Latin America & Caribbean	8%	8%	8%	7.74%	7%	7%	7%	6.76%
Middle East and North Africa	4%	-	6%	6.98%	2%	-	4%	4.12%
South Asia	7%	8%	8%	9.18%	3%	3%	3%	3.99%
Sub-Saharan Africa	2%	2%	3%	3.06%	1%	2%	2%	1.97%
Low & Middle Income Economies	44%	48%	52%	53.50%	28%	30%	36%	35.80%

Source : World Atlas of Global Development, 2011, 2015, 2018.

To measure differences in welfare, comparisons of income among economies should take into account differences in domestic price levels. This is done using purchasing power parity (ppp). So when measured in terms of ppp, we can see in the table that developing economies receive 44% of the world income but when using the Atlas method, they receive only 28%. The difference is due to the

lower cost of services and non-traded goods in developing economies, a fact that travelers frequently observe.

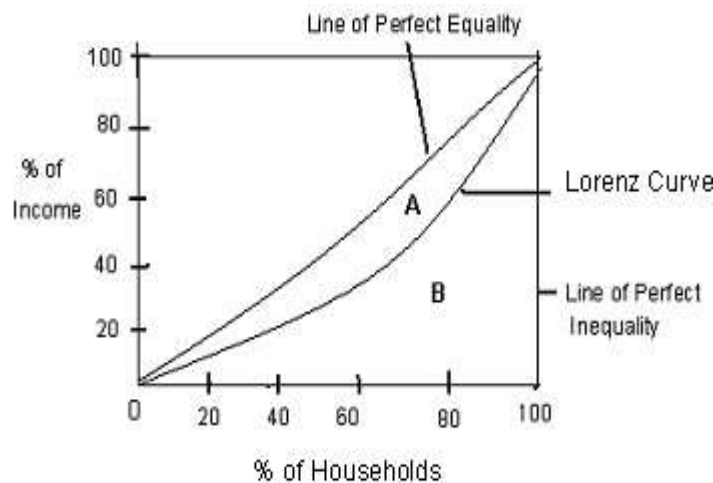
2.2 Measurement of Income Inequality

A number of different measures of income inequality have been used. One crude measure is the “functional distribution of income between wages and salaries on one hand and property income on the other. Other things being equal, total income will be more equally distributed, the higher is the wage and salary share of national income.

- **Lorenz Curve**

The other best known and widely used indicator of income inequality is the familiar Lorenz curve. Which is commonly used to analyze personal income statistics essentially, it is the curve that shows the relationship between the proportion (or percentage of the population receiving percentage of income in an economy. It is shown in Fig 1 below.

Fig 1. Lorenz Curve



The horizontal axis shows the percentage of income recipients. The vertical axis shows the share of total income received by each percentage of population, which is also cumulative up to 100% percent. In order to draw a Lorenz curve, both the income recipients on the horizontal axis and percentage of income on the vertical axis must be ranked from the lowest to the highest. The line of perfect equality, which is diagonal (45° line). represents a perfectly equal distribution of income in an economy where every household has the same income. On the contrary, the line of perfect inequality, which coincides with the horizontal and vertical axes, represents a perfectly unequal income distribution in an economy where one household has all the income and everyone else has none. In other words, the inequality of the distribution of income is more serious. If the actual line bends further away from the 45° line.

It should be noted that the Lorenz curve must lie below the line of perfect equality (45° line) because if it lies above 45° line, “this would imply that the poorer half of the population earned more than half of the total income, which therefore is more than the richer half could each”. (G. Clark, 1992).

- **Gini Coefficient**

It is named after the Italian Statistician Corrado Gini, who first formulated it in 1912. In the Lorenz diagram, the area between perfect equality line and Lorenz curve equals to ‘A’, the area

between Lorenz curve and perfect inequality line equals to 'B'. The Gini Coefficient is then a ratio of 'A' to A+B, Gini Coefficient can vary anywhere from 0 (perfect income equality) to 1 (perfect income inequality). The bigger the area covered by 'A' the higher the Gini Coefficient and thus higher income inequality.

According to international standard, the Gini Coefficient below 0.3 means the "optimal state", the figure between 0.3 to 0.4 refers to the "normal state", the one above 0.4 refers to the "warning state" and the one reaching 0.6 means the "dangerous state" and a social turmoil is expected to happen at any moment [china economic Net, " China's Rich-Poor Gap have been close to the warning level". ;<[http : //enice.cn/Insight/200408/05/t20040805 -1425648. Shtml](http://enice.cn/Insight/200408/05/t20040805-1425648.Shtml)>].

- **Inequality Ratio**

Presently, one commonly used measure of income inequality is the inequality ratio, calculated as the ratio of income or consumption shares of the richest 20 percent to the poorest 20 percent of the population. A ratio of 10 means that the top 20 percent of the population earns (or spends) 10 times as much as the bottom 20 percent of the population. Generally the higher this ratio, the more unequal the income distribution. Countries with high inequality ratios are mostly in Latin America and Africa. The highest inequality ratio among Asian countries is 12.

Income inequalities between high-income countries and developing countries have improved compared with a decade ago. Still in 2009, an average high income country's gross national income percapita measured on purchasing power parity terms was 30 times that of an average low income country and 6 times that of an average middle-income country.

Inequality within countries has significantly increased in many parts of the world, including Colombia, coted d'ivoire, Honduras, FYR Macedonia and Peru.

Inequality ratios have improved significantly in some countries, including Bolivia, Central African Republic, Lesotho, Nicaragua and Paraguay.

The major causes of inequalities are: (i) Existence side by side of a technologically an, institutionally backward sector, on the one hand, and a technologically advance and well-organised modern sector, on the other hand. The spread effects of the modern sector do not percolate to the less-developed regions and weaker sections of society. Disparities in income widen unless action is taken which will directly benefit the poor (ii) Unemployment, under employment, and rise in the rate of population growth are the root causes of widespread poverty and inequality (iii) Lack of opportunities for human resource development through education is another cause of inequality of incomes. Poverty is one of the reasons why children of such families do not go to schools or get only minimum education.

2.3 Effect of Economic Growth on Income Distribution

Theoretically, income equality is a function of employment which in turn is a function of growth, and therefore *income equality is an automatic function of growths*. But this functional relationship holds good under restrictive assumptions like: (a) growth results in higher savings and higher investment nor capacity expansion, (b) increased capacity are fully utilised: (c) the choice of technology is such that there is a bias towards labour intensive rather than capital intensive technology; (d) employment maximisation objective is supreme and (e) growth rate achieved is commensurate with the growth rate of labour force.

The experience of our own country is sufficient to cast doubts on the realism of these assumptions. Increasing non-development expenditure, high idle capacity tendency of taking to capital-

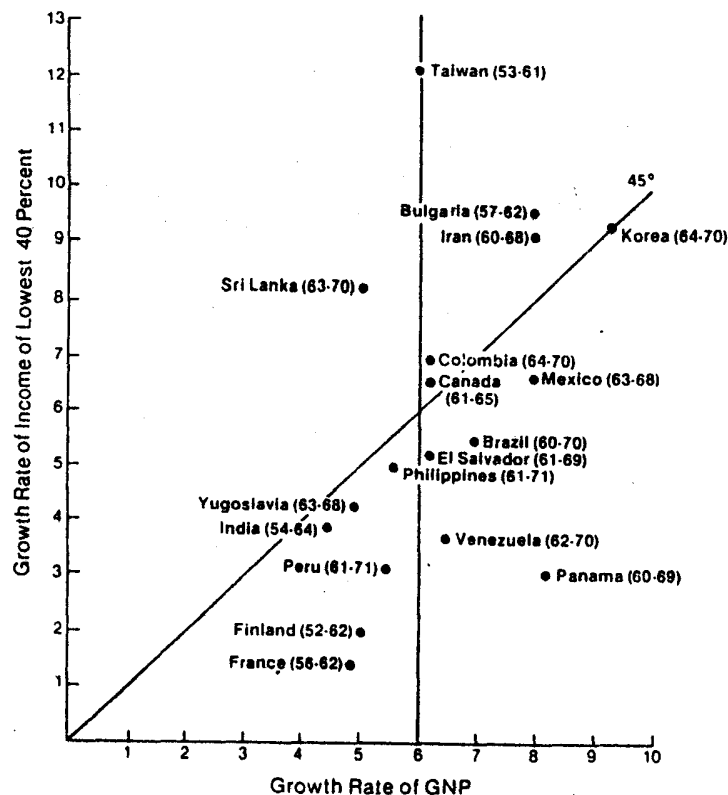
intensive technology, inflation, drying up savings. Sectoral allocations being governed by objectives other than employment are sufficient indications of the non-fulfilment of the postulated assumptions.

Employment-equality relationship is dependent on (a) the distribution of income does not go against labour and in favour of the Profit earners. This requires that the labour force is organised in such a way as to get its due share; (b) absence of monopoly practice which is closely aligned with (a); and (c) there should be no distortion of factor prices by policies like taxation, trade restriction, administered prices, etc. To quote Nanjundappa:

“In developing economies, usually an organised sector exists with an unorganized sector because of dualism. With high unemployment in the labour force and the lack of organisation, the bargaining strength of the labour force is generally weak. The situation will be worse when there is no due representation to labour on management which is dominated by the earliest group. Such a situation favours profit-earners rather than wage-earners”

It is generally held that income distribution within any country will be less unequal if the rate of growth is rapid and more unequal if it is slow. Though the data to test this hypothesis was very scanty, The World Bank Publication, *Redistribution with Growth* presented data for 18 countries. Results are given in the figure below.

FIGURE 2. Growth rates affect the Inequality of income distribution
Above the 45° line, the income share of the lowest income 40% is increasing; below that line, it is decreasing. The correlation with growth rates above and below 8% per year, respectively, is striking.



Source: *Redistribution with Growth*. Copyright World Bank. 1974. Quoted in Hagen. Everett. E. *Economics of Development*.

It is clear from the figure that out of 7 countries growing at a lower rate, the income share of the lower income 40% of the population decreased in 6 countries, of the 11 countries growing at a faster rate, the income share of the lowest income 40% increased in 5 countries. The wider scatter of the data also indicates that there is a relationship between the rate of growth in GNP and change in income distribution. And this relationship leads to another important relationship between per capita income levels and income distribution. Here it is generally expected that at low levels of per capita income, with slow growth, inequality of income distribution will increase, but at some level of per capita income, economic growth may reach sufficiently fast to more than counter the technological disemployment effect so that income inequality will decrease. This is known as the famous Kuznets' Inverted-U hypothesis which is discussed below.

2.3.1 Kuznet's Inverted-U Hypothesis

The research of Simon Kuznet named "economic Growth and income inequality" published in the American Economic Review in 1955 laid foundation of studying the relationship between economic growth and income inequality. He was the first person to introduce the idea of a link between inequality and development. He pointed out that development involves the shift of population from traditional to modern activities. This process of population shift from participating in agricultural productions to industrial productions allowed Kuznet's to predict the behaviour of inequality during the course of development :

"An invariable accompaniment of growth in the developed countries is the shift away from agriculture, a process usually referred to as industrialization and urbanization. The income distribution of the total population, in the simplest model, may therefore be viewed as a combination of income distributions of the rural and of the urban populations. So what little we know of the structures of two component income distributions reveals that : (a) the average per capita income of the rural population is usually lower than that of the urban; (b) inequality in the percentage shares within the distribution for the rural population is somewhat narrower than in that for the urban population – Hence operating with this simple model, what conclusion do we meet? First, all other conditions being equal, the increasing weight of urban populations does not necessarily drift downwards in the process of economic growth : indeed, there is some evidence to suggest that it is stable at best, and tends to widen because percapita productivity in urban pursuits increases more rapidly than in agriculture. If this is so, inequality of the total income distribution should increase." (Kuznet's, 1955, pp. 7-8).

The main idea of his study is that the relationship between economic growth level and income inequality is likely to show an inverted u shape, which is known as Kuznets' Hypothesis in economic literature. This hypothesis suggested that, at low levels of per capita income, inequality increases with rising percapita incomes and decreases only in the later stages of development with industrialization – resulting in an inverted U- shaped relationship between percapita income and income inequality – based on a model where individuals migrate from a low-wage rural sector with little inequality to an urban sector characterized by high income inequality and high average incomes. This is shown in the fig. below.

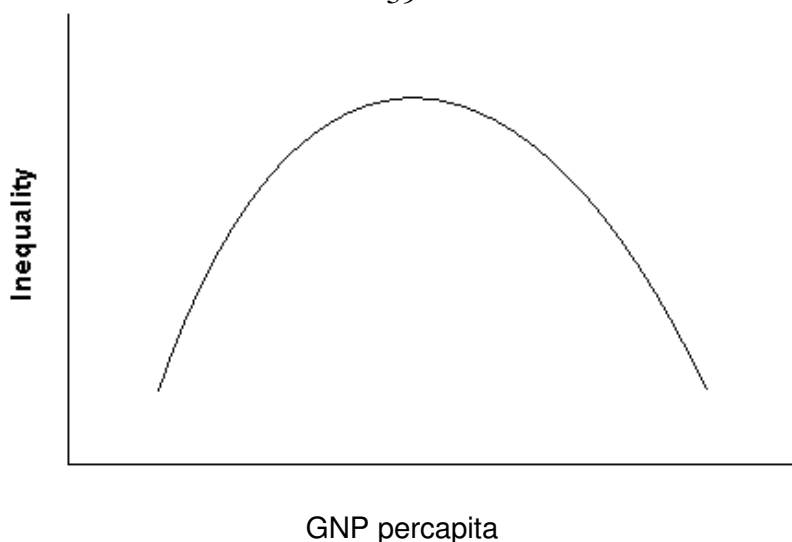


Fig 3. Kuznets Inverted-U curve

Explanations as to why inequality might worsen during the early stages of economic growth before eventually improving are numerous. They almost always relate to the nature of structural change. Early growth may, in accordance with the Lewis model (as stated above) be concentrated in the modern industrial sector where employment is limited but wages and productivity are high.

Now as started above, Kuznets curve could be generated by a steady process of modern-sector growth, as a country develops from a traditional to a modern economy. Alternatively, returns to education may first rise as the emerging modern sector demands skills, then falls as the supply of educated workers increases and the supply of unskilled workers falls. So while Kuznets did not specify the mechanism by which his inverted-U hypothesis was supposed to occur, it could in principle be consistent with a sequential process of economic development. But as we have seen that traditional and modern sector enrichment would tend to pull inequality in opposing directions, so on net, the changes in inequality are ambiguous, and the validity of the Kuznets curve is an empirical question. So let us discuss :

2.3.2 Does the Evidence Support?

Given the conflicting theoretical predictions about the ambiguous relationship between inequality and growth, a vast empirical literature has been spurred, much of it driven by the concern that development hurts the poor. Some researches support Kuznets' Hypothesis, however the others would not argue that the Kuznets sequence of increasing and then declining inequality is inevitable early. Cross-Sational studies supporting the Kuznets hypothesis include Harry Oshima (1962), Adelman and Morris (1973), Paukert (1973), Chenery et. al (1974), Cline (1975), Chenery and Syrquin (1975), Ahluwalia et al (1979).

Paukert shows the size distribution for fifty six countries including developed and developing both and calculated two measures of income concentration – the Gini coefficient and the maximum equalization percentage (which indicates what percentage of total income would have to be shifted between the quintiles of income recipients in order to achieve an equal distribution of income) (Thijlwal, 1994, p. 32). His results show fairly well that upto a certain stage of development, inequality increases and then it declines thus tracing out an inverted U-shape curve similar to that of Kuznets for the now developed countries. The average Gini coefficient for forty three developing countries was 0.467 compared with 0.392 for thirteen developed countries. The maximization equalisation percentage was

35.8 for the developing countries compared with 24.8 for the developed countries, thus giving support to the hypothesis that growth tends to raise inequality in the low income countries and to reduce inequalities in the high income countries. One reason for this greater income inequality in the developing countries may be that there is much concentration of the income in the upper strata of the income recipients.

Chenery et. al (1974), test this thesis by showing the distribution of income in 66 countries at the levels of percapita GNP ranging from lowest to highest. The shares of the national income received by the lowest income 40% and the highest income 20% are shown for each country. The estimates were derived by fitting a free hand Lorenz curve to whatever data were available for each country. The results of this study are summarized in the following table (2) which shows the income shares of the lowest income 40% of the population decreasing and that of highest income 20% population increasing until a percapita income of \$ 300 at 1960 prices is reached.

Table 2. As income rises, income inequality increases and the decreases.

Income Level	No. of Countries	Income shares (%) of	
		Highest Income 20%	Lowest Income 40%
\$ 100 or less	8	46.1	16.4
\$ 101 - \$ 200	5	57.9	13.4
\$ 201 - \$ 300	13	67.9	11.1
\$ 301 - \$ 500	8	57.6	11.6
\$ 501 - \$ 1000	12 (15)	54.0 (50.6)	13.5 (15.3)
Above \$ 1000	15 (17)	46.6 (44.9)	14.8 (16.1)

The data in parentheses include the socialist countries.

Source : Hagen, Everett; E., Economics of Development.

It can be seen from the table, that above the level of \$ 300 income, the trend reverses : inequality decreases. But in capitalist countries even at national percapita income levels \$ 1000, the distribution of income is still slightly more unequal than in the very lowest income countries.

Another empirical study based on cross-country regressions such as perotti (1996), tended to indicate a negative correlation between inequality and growth. As more data on inequality become available, it was possible to use more sophisticated econometric approaches that looked at shorter periods, included fixed effects, and divided the data into different group of countries, and the resulting studies have found a positive, or at least more ambiguous relationship.

Denienger and squire (1996) of the world Bank have surveyed 682 studies of income distribution in over 100 countries and calculated average Gini ratios for each country, together with the ratio of the share of income received by the top 20 percent of income earners (top quintile) to that of the bottom 20 percent of the income earners (bottom quintile). The results are shown in the following table 3.

Table 3. Income inequality, selected economies (1990s)

Region/Economy	No. of observations	Average Gini Ratio	Ratio of top quintile's share of income to bottom quintile's share
Sub-Saharan Africa	40	44.71	11.61
Botswana	1	54.21	16.36
Mauritius	3	40.67	6.62
Nigeria	3	38.55	8.67
South Africa	1	62.30	32.11
East Asia & Pacific	123	36.18	7.15
China	12	32.68	5.17
Hong Kong	7	41.58	9.46
Japan	23	34.82	7.06
Singapore	6	40.12	6.71
Taiwan (china)	26	29.62	4.67
South Asia	60	34.06	5.50
India	31	32.55	4.98
Sri Lanka	9	41.71	7.98
Eastern Europe	101	26.01	4.05
Czech Republic	2	27.43	3.75
Hungary	9	24.65	3.61
Yugoslavia	10	32.65	5.63
Middle East & North Africa	20	40.77	7.14
Iran, Islanm Rep, of	5	43.23	-
Morocco	2	39.20	7.03
Latin America & Caribbean	100	50.15	16.02
Brazil	15	57.32	23.07
Chile	5	51.84	14.48
Colombia	7	51.51	13.94
Jamaica	9	42.90	8.75
Mexico	9	53.85	17.12

Industrial Countries and high-income developing countries	238	33.19	6.63
Australia	9	37.88	8.32
France	7	43.11	6.31
Germany	7	31.22	5.35
Italy	15	34.93	4.94
New Zealand	12	34.36	6.78
Sweden	15	31.63	5.64
Turkey	3	50.36	15.22
United States	45	35.28	8.46
Total	682	36.12	7.80

It can be seen from the Gini ratios (multiplied by 100) that Latin America and Caribbean, and Sub-Saharan Africa have by far the largest degree of income inequality. With the Gini ratio well over 50 in many countries, for example Brazil (57.3), Mexico (53.8) and South Africa (62.3). In contrast, income inequality in Asia and the Pacific, and Eastern Europe, appears to be much less. In the two largest countries in the world measured by population-China and India- the Gini ratio is just over 30, much the same as for the high-income countries. Generally speaking the higher the Gini ratio, the greater the ratio of income shares between the top and bottom 20 percent of income earners. In South Africa that ratio is 32 : 1 and in Brazil 23 : 1.

Williamson (1991) proposed that change in technology initially increases the income inequality, but it declines when skill related to the new technology becomes widespread. Barro (2001) suggested that each implementation of new technology is accompanied by dynamic Kuznets-type effect on the distribution of income. Aghion and Bolton (1997) attributed the Kuznets U curve to credit market imperfections which cause different behaviour among the poor and the rich: in early stages of economic development the rich get richer, while the poor remain poor, at the later stages of economic developments, the accumulation of wealth by the rich people pushes down their interest rates and allow the poor to become richer. Jha (1996) analyzed observations for 76 countries for the period 1960-92 and found that Kuznets Hypothesis holds. Similarly Milanovic (2000) reported that Kuznets hypothesis is supported by the data for 80 countries during 1980s.

Bulir (2001) came to similar conclusion from analysis of cross-sectional data for 75 countries- parametric and semi-parametric testing of Kuznets hypothesis performed by Lin et al. (2006) on the same data as Bulir (2001) gave also support for the Kuznets hypothesis.

Now Kuznets, as started above, proposed a broad hypothesis on the process of development that economic progress is accompanied by increasing inequalities in the early stages of industrialization, which then tends to decline as industrialization deepens. But recent empirical tests of the Kuznets hypothesis have raised questions about this conjecture. Using both pooled and panel data in attempt to shed light on the relationship between economic growth and income inequality across countries and time, majority of this research work found a consistent negative relationship.

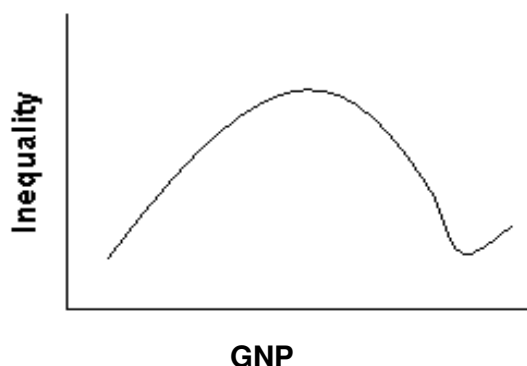
Initially, it got refuted by Anand and Kanbur (1986). In their carefully taken econometric study, they found that the cross sectional data were best fit by a U-shaped curve and not by an inverted U. To

determine the growth on inequality in the high income and low income groups, they have introduced growth spells in their study and found that in low income countries, 10 out of 21 growth spells (48%) were marked by an increase in inequality. In the high income countries, it was 4 out of 22 (42%). These two percentages are very close and not significantly different from one another. Hence they concluded that inequality increases with growth as frequently in the low income countries as in the high income countries. There is no tendency for inequality to increase more in the early stages of economic development than in the later stages. Later Anand and Kanbur (1993 b) again analyzed the additional data of higher quality than those used by Ahluwalia (1976) and again they did not find any evidence for the Kuznets hypothesis.

Surveying twenty three different studies, Benabou (1996) concluded that “initial inequality is determinantal to long run growth.” Deininger and Squire (1998) disrupted the emerging consensus with a study based on their ambitious new global inequality data set compiled of the World Bank from disparate household surveys of 108 countries since 1950. Based on this new data, they performed both cross-country analysis and examination of country specific time series. They also found no support for the Kuznets inverted-U hypothesis neither in the cross country analysis nor in the country specific inter temporal data.

Moreover, recent empirical work has also found that a few rich countries specializing in high wage, advanced capital goods have experienced a post Kuznets rise in inequality. While most developing and industrialized countries are found on the downward portion of Kuznets’ inverted-U curve, inequality has been rising with increased income levels in high-income countries like Japan, the U.S. and the U.K. Conceicao and Galbraith (2001) postulate that Kuznets’ original formulation might apply only as long as countries produce principally consumer goods, and might break down as industrial activity shifts into monopolistic advanced technological goods for the world market. In that case, the richest and the most advanced industrial economies producing capital goods for export would be found on an “augmented” Kuznets curve with an upward-sloping tail for such countries as shown in the fig 4 below.

Fig. 4. Augmented Kuznets Curve



Away from the augmented curves’ peak and trough, however, the relationship between growth and inequality is presumed to be a more or less stable function of income level.

One pertinent question i.e. how this relationship between inequality and growth been affected by the market-oriented structural economic reforms undertaken by many countries in the recent past has been dealt with by a recent study by Craig Adair (2006). Examining the relationship between inequality and growth in Mexico, he found that structural reforms fundamentally altered the relationship between inequality and growth as benefits accrued to an increasingly small number of firms. The findings

support the hypothesis of an “augmented” Kuznets curve according to which some developed countries are found on an upward sloping addendum to Kuznets’ original formulation.

Recently Tam (2008) analyzed ‘high quality’ data for 84 countries and did not find any support for the Kuznets’ hypothesis. Oksana Melikhova and Jakub Cizek (2011), in their very recent study ‘Kuznets Invested-U curve Hypothesis examined on up-to-date observations for 145 countries,’ analyze the historical data on the average income and the income inequality for the period 1979-2009 collected for 145 countries. They found that the income inequality is influenced by govt. policy on subsidies and social transfers. Different amount of subsidies and social transfers across various countries make the data biased. The inverted-U curve was found in countries with low amount of social contributions. However, increasing amount of social contributions make the U-curve, Flat and shift its maximum to higher G D P percapita. Based on empirical data, a model describing the influence of both govt. policy and the level of economic development was developed and their analysis suggests that long standing controversies regarding the existence or non-existence of the Kuznets inverted-U curve were likely caused by the fact that the U-curve was blurred due to various amounts of social contributions which influence the income inequality much more than the level of economic development. Gallup (2012), in a study “Is there a Kuznet curve?” by using new international panel data with the first internally consistent time series for a large number of countries (87), shows no evidence of a Kuznets curve. The data shows an anti- Kuznets curve! Inequality decline in low income countries and it increases in high income countries. Todaro (2012) has also analyzed the recent data for some selected countries and found that there has been a tendency for inequality to rise in high-income countries and to fall at least somewhat in several Latin American countries. He also analyzed the relationship between economic growth and inequality by taking in to consideration the long run data covering the mid 1960s and mid 1990s. His analysis shows that inequality, as measured by Gini-coefficients, seems unrelated to aggregate G N I percapita growth rates. During these periods, percapita growth in East Asia averaged 5.5% while that of Africa declined by 0.2%, yet both Gini coefficients remained essentially unchanged. It is not just the rate but also the character of economic growth (how it is achieved, who participates, which sectors are given priority, what institutional arrangements are designed and emphasized etc.) that determines the degree to which that growth is or is not reflected in improved living standards for the very poor. It is not the mere fact of rapid growth per se that determine the nature of its distributional benefits.

According to him, in more recent years, inequality in many countries has been increasing. Unfortunately, this is occurring whether countries are growing or not. Following figure reflects this observation in 59 countries in 2007.

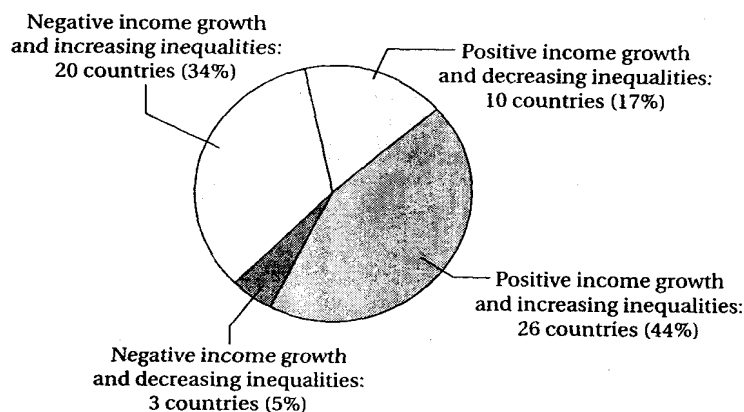


FIGURE 5. Change in Inequality in Selected Countries with or without Growth.

Source : World Bank World Development Indicators, 2007 (Washington, D.C.: World Bank, 2007), tab.I).

It can be seen from the figure that 26 countries ie. 44% countries are such where the rate of growth of percapita income is positive but still the inequalities are increasing in these countries.

Self Assessment Questions – I

1. What do you mean by Lorenz Curve?

2. Explain the concept of Inequality Ratio.

3. What does the Kuznet's Inverted U-Hypothesis? Explain.

2.4 Effects of Income Distribution on Economic Growth

Income distribution can have positive as well as negative impact on economic growth and both are supported by arguments.

2.4.1 Positive Impacts

The traditional view that inequality should be growth enhancing is based on three arguments.

(i) First comes kaldor's hypothesis, formalized by stiglitz (1969), that the marginal propensity to save of the rich is higher than that of the poor. If the growth rate of G D P is directly related to the proportion of national income that is saved, more unequal economies are bound to grow faster than economies characterized by a more equitable distribution of income. Therefore income redistribution from rich people to poor people by the means of more progressive taxation reduces the saving rate of the economy as a whole. As according to the Neo-Classical Growth theory saving is the main factor of capital formation, the reduction in savings would lead to a decline in economic growth. Moreover, income redistribution could lower the incentive for the rich to work hard, and that could also lead to an economic growth.

(ii) A second reason why inequality may enhance growth has to do with investment indivisibilities, investment projects, in particular the setting up of new industries or the implementation of innovations, often involve large sunk costs. In the absence of a broad and well-functioning market for shares, wealth obviously needs to be sufficiently concentrated in order for an individual (or a family) to be able to cover such large sunk costs and thereby initiate a new industrial activity. Hence a sufficiently concentrated distribution of wealth is a pre-requisite for growth

(iii) Lastly, the idea that there is necessarily a trade-off between productive efficiency and equality is based on incentive considerations, first formalized by Mirrlees (1971). Normely, when individual output depends on the unobservable effort borne by agents, rewarding them with a constant wage independent from output performance will obviously discourage them from investing any effort. Hence the idea that income inequality is necessary to foster effort remains central in the growth literature. However, the recent literature has refuted the first two arguments on the grounds that, even though they might be important at the early stages of development, in modern industrialized economies capital

markets are sufficiently developed for investments in physical capital not to be constrained by personal wealth or domestic savings.

2.4.2 Negative Impact

Income inequality can affect economic growth in negative sense also. (i) extreme income inequality leads to economic inefficiency. This is partly because at any given average income, the higher the inequality, the smaller the fraction of the population that qualifies for a loan or other credit. When low-income individuals (whether they are absolutely poor or not) cannot borrow money, they generally cannot adequately educate their children or start and expand a business.

Moreover, with high inequality, the overall rate of savings in the economy tends to be lower, because the highest rate of marginal savings is usually found among the middle classes. This situation does not imply general rule, rather it depends on the level of development of a country. Although the highest portion of income scale may save a large dollar amount, they do not generally save and invest significantly large proportions of their incomes (in the real economic sense of productive domestic saving and investment) than the middle class. They are known to spend much of their incomes on imported luxury goods, gold jewellery, expensive houses or seek safe heavens abroad for their savings in what is known as capital flight. This case is quite applicable to most developing countries. Such savings and investments do not add to the nation's productive resources; in fact, they represent substantial drains on these resources (Todaro, 2009).

(ii) Furthermore, inequality may lead to an inefficient allocation of assets. High inequality leads to an overemphasis on higher education at the expense of quality universal primary education and this in turn begets still more inequality in incomes. The results of these factors can be a lower average income and a lower rate of economic growth when inequality is high (iii) Another argument is that in the presence of imperfect capital markets inequality, according to which low income individuals are unable to invest in their human capital, causing income inequality to increase and income growth to decrease. In most developing countries, poor people are under credit constraint. They do not have the opportunity of investing, and extremely poor people in income inequality cannot even participate in product activity. In an economy where individuals make indivisible investments in schooling and education, for example that have to be financed through borrowing, this would imply lower aggregate growth (Chatterjee, 1991; Tsiddon, 1992). In the political economy models of (Alesina and Rodrik, 1994) high levels of inequality push median voters to support higher taxes, thereby lowering income growth (iv) The final argument supporting negative impact of inequality on growth is that extreme income disparities undermine social stability and solidarity. Income inequality might lead to political and social instability (Gupta, 1990), which will in turn reduce investment, and consequently lead to economic growth decline. High inequality strengthens the political power of the rich, as well as their economic bargaining power, and facilitates "rent-seeking", including actions such as excessive lobbying, large political donations bribery and cronyism (Todaro, 2009). When resources are allocated to such rent seeking behaviours, they are diverted from productive purposes that could lead to faster growth, of course, high inequality may also lead to the poor to support populist policies that can be self-defeating. Countries with high inequality, such as Iran and Brazil, have undergone upheavals or extended civil strife that have cost countless lives and set back development progress by decades. In sum, with higher inequality the focus of politics often tends to be on the redistribution of the existing economic pie rather than on policies to increase its size.

After discussing the theoretical base, let us discuss the empirical research done on this aspect. We have seen that a number of articles (discussed above) emphasized to explore the effect of economic growth on distribution of income, but there are some other studies which have emphasized on the effect of income distribution on economic growth.

The empirical relationship between long run growth and income inequality was analyzed not until later. "Is inequality harmful for growth?" is the title of a paper by Persson and Tabellini (1994). The answers of the authors as well as of Alesina and Rodrik (1994) is "yes". Using cross-country data and

historical time-series, these studies show that higher inequality at the beginning of a longer term period has a negative impact on the growth rate during the subsequent period. The authors interpret this as a causal effect of inequality on the long-run growth prospects of an economy.

Recently one such study has been undertaken by Barro (1998). Dividing the sample into two categories i.e. Rich countries and poor-countries, his analysis has been done from a neo-classical economic growth perspective and the study shows a positive relationship of income inequality and economic growth in the former and negative relationship of inequality and economic growth in the latter. Forbes (2000) is of the view that when short growth spans are used, inequality and growth are positively correlated.

Bannerjee and Duflo (2003) found an even more complex relationship between inequality and growth, in which changes in inequality in either direction lower growth in the subsequent five-years period. They interpreted this finding as supportive of the notion that redistribution hurts growth, at least over short to medium-run horizons.

Another study needs mentioning due to two facts (i) It has undertaken a small sample consisting rich but relatively homogeneous countries where same mechanisms could be expected to apply, (ii) estimation of the effect of inequality on growth could be done by using careful econometric specifications. Moreover this study by Voitchovsky (2005) uses different distributional measures in order to allow for different effects of inequality at different points of the distribution of income. Her results strongly support the hypothesis that, for rich industrial economies, greater inequality at the top fosters growth while greater inequality at the bottom dampens it.

For many years, physical capital was considered to be the engine of growth. But since 1980s, as the new endogenous growth theory came into existence, human capital started gaining importance thus replacing the physical capital. And positive impact of inequality on growth process got reversed in this process. Based on this fact another theory was undertaken by David Galor and Omer Moav (2004). Which argues that development was stimulated by the inequality in the early stages of Industrial Revolution, when physical capital accumulation was the prime source of growth. It was done by channelling resources towards individuals with a higher propensity to save. But as human capital gained importance, adverse effects of credit constraints on human capital accumulation were alleviated by equality thus stimulating the growth process. Ayla Ogus (2004), in her research on Turkey, did not find a statistically significant relationship between inequality and growth for 1960-1999 period. She concluded that during this period, there was no deterioration in the distribution of income in Turkey as compared to other economies, where a change for the benefit of upper quintile at the cost of the rest of the population has taken place, but substantial losses in real incomes have been realized.

Very recently another study by Kamila Mekenbayeva and Smith Baris Karakus (2011) has been undertaken to study the relationship between income inequality and economic growth in developed and developing countries and make comparison among them. The study has used panel data model for nine countries for the period 1980-2009. Some tests viz. panel unit root tests and panel co-integration test and random effects model have been used by them to demonstrate individual effects of inequality on economic growth. Their results show a long term relationship between economic growth and Gini.

Inequality is enhancing economic performance in developed countries, while reverse situation exists in developing countries. A negative relationship of two variables in developing countries can result from negative opportunity-creation effect-operating through the constraints on human capital investment that it imposes on poor individuals, imperfect capital markets, unsuitable and risky conditions for investors and unstable political environment in some cases. In developed countries, factors viz. higher marginal productivity of capital, higher marginal propensity to save in general and a weaker preference for leisure, encourage the accumulation of physical capital and hence foster growth.

(Garria-Penalosa, 2008). According to them, the negative correlation between income growth and inequality should be taken into account while determining the development policies.

2.5 Conflict Between Income Distribution And Growth Produced By Market Mechanism*

An objection raised against the market mechanism is that the income distribution produced by it is unjust and socially undesirable. The distribution of income through the market mechanism depends on (i) the wealth and talents of different individuals, and (ii) on their individual skill in seeing a profitable opportunity of employing their money or labour. If they make a wise or lucky choice, they may obtain a much higher income. The objection is that this method of determining income redistribution is unjust.

If intervention in income distribution is advocated as a remedy, the problem that is encountered is that *intervention interferes with the efficiency of the market system*. If people are not allowed to enjoy the income they could obtain by their decisions, their decision in turn will be affected, and the efficiency of the system will be impaired. There is therefore, a conflict between economic efficiency (which leads to economic growth) and social justice or income distribution.

The extent and importance of this conflict is likely to vary according to the state of economic development. The more advanced a country is, the less serious will be any slowing down of the growth rate brought about by redistribution policies. This is so because its citizens are likely to have “consciences about the redistribution of income,” and to accept high taxation necessary to correct it without seriously altering their behaviour. Besides, an advanced country can afford to sacrifice some growth for the sake of social justice.

But the cost of greater equality may be greater to a less developed country, that wishes to grow rapidly. This is so because, historically, the great bursts of economic growth have been associated with the prospect and the result of big windfall gains. Professor H.G. Johnson therefore opines that “it would seem unwise for a country anxious to enjoy rapid growth to insist too strongly on policies aimed at ensuring economic equality and a just income distribution.”

In a nutshell, income equality does not lead to economic growth, according to Professor H.G. Johnson. But according to him the reverse is true, i.e. “in the course of time rapid growth tends in various ways to promote a more equal distribution of wealth.”

- **Taxation Entails Elements of Conflict :** Prof. Lewis¹ is of the view that attempts to redistribute income through taxation run the danger of curtailing the growth rates. Taxation may retard growth either through the *blunting of incentives or by the use for private or public consumption of resources which would otherwise be saved*. But this adverse effect on the growth rate is not inevitable. Some kinds of taxes are less dangerous than others, such as taxes on landlords; and also forms some of government expenditure are more productive than the uses to which the tax payer would have put the money. Expropriation of domestic assets may lead to a flight of domestic savings, with accompanying balance of payments troubles.
- **Economies of Scales Create Conflict:** Inequalities result from concentration in incomes and *ownership of large scale units which enjoy economies of scale and therefore maximise productivity*. Efforts to reduce inequalities by the creation and expansion of small units could only hinder growth. Economic growth is a function not only of the quantum of factors of production but also of their productivity. In so far as the large scale units alone are capable

* H.G. Johnson, “The Market Mechanism as an instrument of economic Development.” In Meier (ed) Leading Issues in Economic Development.

¹ Dynamic Factor and Economic Growth, orient Longman, Bombay, p.25

maximizing productivity encouraging small units with a view to achieve social justice is believed to hinder maximizing efficiency and therefore impede growth.

- **Equality Promotes Economic Growth :** Recent studies² have favoured the view that equity and growth are complementary or at least seriously competitive. In other words, redistribution to reduce the extent of poverty would have only negligible effect on the prospects for continued rapid growth. The arguments in support of this contention are as follows.
- **Equality Saves From Conspicuous Consumption of Capitalists:** Prof. A.K. Gupta³ says that inequality of incomes has ceased to be a precondition of accumulation. The doctrine of inequality as a growth-stimulating factor loses force, in so far as the rich spend and do not accumulate. If historically an increasing degree of inequality has been associated with economic growth, it is because growth has taken place within a capitalist system. Capitalist entrepreneurs, being the employers of labour, succeeded in appropriating a disproportionately large share of output, leaving wages as far as possible at a depressed level.

On the other hand, because entrepreneurs had large surplus, they saved and contributed in the formulation of capital. While, the manner in which growth took place led to an unequal distribution of income, inequality in its turn led to accumulation and economic growth.

The historical experience, however, does not provide any logical connection between inequality and growth. *The capitalists budget has now a large leakage in luxury consumption and his income urge today finds outlet largely in advertisement.* Unfortunately, it is this corrupt capitalist system which is being reproduced in most developing economies.

To an extent, inequality of income in any society may be functional: in so far as tends to keep up a certain competitive spirit in men, it may be healthy, but such inequalities related to the distribution of income among worker themselves, not the distribution of income between workers and rentiers; large inequalities of income far from having any functional basis, are a drag on a country's economic growth.

Also it is held, that a potential fall in domestic saving is not a legitimate reason for postponing the implementation of measures to alleviate poverty, since if the political will to carry out redistribution existed, then it is quite clear that a fall in domestic saving could be averted.

- **Equality Increases Employment:** This argument derives from *difference in the relative labour intensity of goods consumed by the rich and the poor*. Since in the LDCs the rich buy capital intensive goods while poor buy labour intensive goods: clothes, shoes, food, so that a transfer of income would increase employment and lead to industrial growth. It is said that the industrial Revolution proceeded faster in England than in France because the French rich purchased artistic handicrafts not amenable to mechanisation, while the English rich bought factory goods.
- **Small Scale Units are More Efficient:** There is a fear that equitable distribution of the means of production conflicts with economic growth. However, empirical evidence does not support any direct relationship between the size of a unit and the productivity of inputs. Data of countries like Japan, India, UAR, China, Taiwan and the US indicate that small enterprises with a lower level of investment per worker tend to achieve higher productivity of capital than large and more capital intensive capital enterprises. This could be explained by the fact that *large-scale units face the problem of management and of getting adequate quantities of inputs*. No doubt, owners

² D. L. Chauhan: Distribution, Equality and Economic Growth. The case of Taiwan, Economic Development and Cultural Change Vol 26, 1, 1977.

³ Economic of Austerity, OUP.

of small means of production face the problems of inadequacy of funds and lack of access. This, however, can be solved by appropriate planning and policy measures.

- **Equality Provides Incentives to Work:** The very ownership of the means of the production provides incentives to increase efficiency. *Men will work harder or more effectively if they get the fruit of their own labour, rather than if they see it passing to others.* Thus land reform by taking landlords and moneylenders of the former's back, increases his incentive to invest in productive inputs. For instance, in Japan agrarian reforms had, Inter alia, the objective of raising of agricultural productivity through incentives provided by transfer of ownership of agricultural land from land owners to tenants. Thus agrarian reforms aimed at both growth and social justice.

Empirical evidence supports the point that there was an improved agricultural productivity after reform. A study of 19 countries has shown that output per acre of land tends to be higher on small holdings than on large farms or estates (Edger Owen and Shah *Development Reconsidered*).

Thus, the fear that redistribution of means of production results in lowering of productivity and hence conflict with growth is not established. This presumes that the Post- reform measures are so comprehensive as to provide all the inputs and the where withal for the poor peasantry and the new owners of land.

- **Equality Provides Incentives to invest:** Most of the development models are in some way concerned with question of how to raise the proportion of income which is reinvested and a substantial consensus exists that the greater the share of income which accrues to potential investors, the higher the probable 'rate of development. A capital-intensive technology which minimizes distribution of income to employee will appear in this context to maximize growth.

'But, according to Walter Elken⁴ this cannot be true in market economies in which *a part of the incentive to invest must come from the anticipation of rising consumer expenditure.* Since consumer expenditure will be positively correlated with employment there may be no real conflict between maximizing employment and maximizing income in long run because the increase in purchasing power generated by rising employment or redistribution will in the long run also maximize the national income providing the necessary incentives to invest.

But, according to Lewis, this proposition is not fully relevant to LDC because (i) the rich here are consumers rather than savers (especially the Landlords), and (ii) the chief constraints on growth are limited productive capacity, shortage of saving and the propensity to import rather than any shortage of consumer demand. We could, indeed increase consumer demand and any moment by printing more money, if this would not run us up against these other constraints.

According to Gunnar Myrdal⁵, "Greater equality in underdeveloped countries is almost a condition for more rapid growth." He mentions the following reasons in support of this view:

'First. the usual argument that inequality of income is a condition for savings has much less bearing on condition in underdeveloped countries, *landlords and other rich people are known to squander their income* for conspicuous consumption and conspicuous investment, and sometimes, particularly (but not only) in Latin America in capital 'flight' (emphasis added).

Second, since large masses of people in underdeveloped countries suffer from under nutrition, malnutrition and other serious defects in their levels of living in particular lack of elementary health and

⁴ Walter Elken.: An Introduction to Development Economics., Penguin, p.142.

⁵ Gunnar Myrdal, The challenge of World Poverty, Penguin.

education facilities, extremely bad housing condition and sanitation, and since this impairs their willingness and ability to work and to work intensively, this holds down production, This implies the *measure to raise income level for the masses would raise productivity*" (emphasis added).

"Third, social inequality is tried to economic inequality in a mutual relationship, each being both cause and effect of the other (*reater economic equality would undoubtedly tend to lead a greater social equality*). As social inequality is quite generally detrimental to development, the conclusion must be that through this mechanism also greater equality would lead to higher productivity" (emphasis added).

"Fourth we cannot exclude from consideration that behind the quest for greater equality is the recognition of the fact that has an independent value in terms of social justice and that it would have wholesome effects for national integration" (emphasis added),

Gunnar Myrdal further writes : "To judge from actual experience large and growing Income disparities have not proved conducive to brisk economic performance and a strong thrust of development. It seems more likely, in fact, that heavy income concentration has often impeded healthy economic expansion by acting as a powerful disincentive (both material and psychological) to public participation in development."

2.6 Growth with Equality

Growth and equality are among the most commonly accepted objectives of economic policy. Growth can be achieved without equality but equality and social justice cannot be achieved without growth; in order that the standard of living and welfare level of the masses increase, the size of the national income must also increase. It can safely be concluded the growth cannot be sacrificed for the sake of social justice because this would turn out to be self- defeating.

On the other hand, growth percent is useless, if it cannot alleviate poverty and fails to fulfil its objective of rising the real wages of the majority and of improving their standard of living; therefore, *the recipe to eliminate poverty is to integrate distribution objectives into policy making*, i.e. the distributional effects of economic policies should be given much weight in the decision-making process.

Income equality and economic growth may not, and given appropriate policies, need not be in conflict and there is no real justification for sacrificing equity at the alter of economic growth. Therefore a new strategy of growth with equality has been propounded, the pioneer of which is H. W. Singer. It is held that growth and distribution are not enemies of each other. The problems of LDC's cannot be solved mainly by redistribution what they have; the problems have to be solved mainly by growth.

The concept of growth with equality represents a change in the approach to economic growth and sets forth a new strategy in which participation by all the people is both the more and an end to growth itself. The most obvious reason for these changes are that for too long we assumed that if we take care of the GNP, poverty and unemployment will take care of themselves. It is now realised that if we ignore the pattern of growth, the basic problems of poverty and unemployment in developing countries are not likely to be solved, Robert S. McNamara and M. Haq subscribe to this view.

The change in development policy is necessitated by social and economic reasons, Such a change would enable a large cross-section of the population and producers to increase their incomes through their own effort and create enough jobs to employ the exploding labour force. Development based on a combination of participation and labour- intensive rather than capital intensive pattern of investment reduce the cost of increasing the, national income. A policy which is more equitable, can reduce poverty and accelerate employment generation represent a more efficient use of economic

resources rather than the GNP dominated approach which tends to widen the gap between the haves and the have-nots.

2.7 Policies for Growth with Equality

We now turn to the specific policies which can achieve growth with equality. In choosing policies to improve distribution, one should give priority to those which do not conflict with growth, the highest priority to those which actually raise the rate of growth by improving the equality of the human performance.

- **Asset Redistribution:** For the initiation of equitable growth, asset redistribution and the redistribution of opportunities for asset accumulation are a necessary first step. The latter has, in fact, been a precondition in all successful equitable growth countries to date. But in all successful countries, that redistribution has been followed by a host of primary growth manship oriented policies to maintain the value of the redistributed assets. Poor economic management or excessively slow growth rates have invariably negated the intent of redistribute efforts both by, producing a fall in the value of the redistributed assets (for example, the host of abortive land reforms and enterprise nationalisation), and by providing unforeseen and undesirable windfall profits for the upper 20 percent of the population.
- **Beneficiaries of Development to Pay a Price:** The pattern of investment and that beneficiaries of investment must be made to pay a reasonable price for the benefit derived do not get the required emphasis. Again the imperative of generating surpluses from the investments made, the ploughing back to increase the Development effort, from which there can be expansion of benefits to the vast sections of the economy, does not find a place in the policy mix. So attention should be paid to remedy these shortcomings.
- **Human Resource, Intensive Development Patterns:** The results of the statistical analysis performed by Adelman and Morris suggest that equitable growth required a major reorientation of development strategies. The most hopeful redirection to emerge from this work is towards human-source-intensive development patterns. It is significant that all the western countries which have successfully combined growth with greater equality have followed this strategy because they have adopted export-oriented growth based on labour and skill intensive exports. They have made massive investment on the improvement of educational standard which gave rise to productive employment opportunities.
- **Agricultural Sector to Get Priority:** Since more than half the labour force is in agriculture a significant dent on mass living standards can be made only when the lot of the farmers is improved. For this, land reforms, provision of irrigation, water fertilisers, pesticides, better seeds, etc. and spread of light industries around the countryside are some of the well- known policies.
- **Development of Social Infrastructure :** Another effort to be made is to divert resources towards providing rural and urban people with the social infrastructure needed for a more productive life. Public health, education, link roads, water supplies, electrification are some of the measures which will increase productive capacity. "One should. not hesitate to tax the leading sectors in order to spread the benefits of growth around, when one is spreading it in ways which increase productive capacity and just in the form of handouts".
- **Balanced Development of All the Areas :** Another measure to prevent the geographical polarisation of industry in a few very large towns, to which skills and capital migrate from all the

rest of country. Such polarisation is uneconomic. Also spreading industry around the countryside is beneficial to the countryside since it prevents excessive migration.

- **Use of Appropriate Technology:** The use of more appropriate technology can improve both distribution and growth in the all sectors of the economy. For providing employment, machines should be used only where the quality of their work is different from or superior to that of human beings and, human labour should be used wherever a machine merely substitutes mechanical for human effort.
- **Development Projects to Benefit the Poor:** Income equality is to be viewed as part and parcel of the development process rather than a matter of special welfare-oriented measures. Introduction of special programme to carry benefits to weaker sections tinkers with the gigantic problem only at the margin. Income distribution is to be influenced by policies that keep in the forefront the poor beneficiaries in the choice of the development programmes themselves. The selection of development projects should be made not on the size of the total net social returns or total net benefits, but on that part of social returns that occur to beneficiaries, below a certain level of income.
- **Access to Public Services for the Poor:** Income inequality is partly a consequence of the lack of access to public services to the poor and it would appear that the principle of earmarking public services to the poor may become necessary for making the benefits of development to reach them. The national managerial and intellectual resources have to be so re-organised as to serve the many instead of the few, the deprived instead of the privileged.
- **High Interest Rates :** A policy of low interest rate and forced saving may, in the long run, contribute to the inequality of income distribution. The reason is that the poor or small savers are mainly confined to low-yielding fixed-interest investment, directly or indirectly in Government debt, because these are safe and easily available. In contrast, the larger savers can invest their money in higher-yielding stocks and shares or directly in profitable enterprises. There is therefore an opportunity here for Government both to stimulate saving or development and to improve the distribution of income by raising the interest rates particularly on the savings of poor or small savers. If need be, a policy of differential interest rates on savings may be adopted.

2.7.1 Kindleberger and Herrick's Suggestions

Kindleberger and Herrick⁶ have given the following policy action for promoting growth with equality:

(1) Correct Price Signals: Price signals more adequately reflecting scarcity values would condition the economy against the uneconomic substitution of capital and imports for labour as development occurred. The effect on greater employment of the correction of price signals depends on the possibilities for substitution of labour for other factors. Where these possibilities are abundant, employment will rise accordingly, where scarce, incomes to capital will rise and employment will not be greatly effected.

(2) Improvement in Labour Productivity: Improvement in labour productivity will be furthered by emphasizing the production of wage goods whose domestic markets are potentially and whose factor proportions are flexible. When domestic productivity improvement agencies emphasise local

⁶ Kindleberger and Harrick : Economic Development : McGraw Hill, Kogakushs Ltd.

production methods and materials as substitutes for more expensive imported technology, then higher output, higher income, and greater employment can be simultaneously achieved.

(3) Emphasis on Productive Employment in Agriculture, Construction and Urban Services: Farm policies, to be successful in any country, must be oriented towards incentive systems meaningful to the cultivators. Unskilled and semiskilled workers can productively employed, in large numbers in construction, with desirable effects on further demand by them for wage-goods. Incentives for labour-intensive construction are much the same as intended to super labour intensive methods in other sectors of the economy. A refusal to subsidies be imported. Capital equipment is the first step in any such process. Urban service similarly provide a range of employment opportunities.

(4) Use of Currently Idle Capacity: Greater employment, without sacrifices in productivity, could be obtained by pressing the idle capacity into service. In particular more intensive use of the idle capital by the addition of second shift seems a logical extension that would raise employment and income.

2.7.2 Ahluwalia and Chenery's Observations

Ahluwalia and Chenery⁷ have distinguished the following basic approaches to problem of raising the welfare of the low-income groups.

- 1) *Maximizing the growth of GNP involves* some measures that benefit all groups and some other measures such as favouring high saving group through lower income taxes or wage restraint policies in which there is a conflict with distributional objectives. Because of the relatively weak income linkages between the poverty groups and the rest of the economy, their growth tends to lag until the expansion of employment creates a shortage of unskilled labour and hence an upward pressure on wage rates. Although the poor may be better off even in this case than with slower growth of GNP, the welfare effects of a maximal growth strategy can almost always be improved by adding transfers.
- 2) *Increased investment in the physical and human assets of the poverty groups* is likely to require same sacrifice of output in the short run because returns on investments in human capital take longer to develop. Even so welfare will be higher because these investments lead to income growth in target groups, which have higher welfare weights. While the strategy has a short run cost of the upper income groups, in the lower run they may even benefit from the trickle up effects of greater productivity and purchasing power of the poor.
- (3) *General transfers of income in support of consumption of poverty groups can also raise welfare in the short run*, However, they have too high a cost in terms of foregone investment to be viable on a large scale over an extended period. Nevertheless, some direct consumption supplements for specific target groups (child nutrition, national health services) are a necessary supplement to an investment-oriented strategy, since they are the only way to eradicate some types of absolute poverty.
- (4) *Political resistance to the policies of asset redistribution* makes this approach unlikely to succeed on any large scale in most countries. However, in areas such as land ownership and security of tenure, some degree of assets redistribution is an essential part of any programme to make the rural poor more productive. Beyond this essential minimum, a vigorous policy of investment reallocation in a rapidly growing economy will be a more effective way of increasing

⁷ Ahluwalia and chenery. "The Economic Framework." In Redistribution with Growth, Oxford university press

the productive capacity of the poor than redistribution from the existing stock of assets, which is likely to have a high cost in social and political disruption.

- (5) In the longer term, *population policy* can have an important influence on both the distribution of incomes and the levels of consumption in the poverty groups. Income distribution worsens with population growth above 2.5% per year, while with more optimistic assumptions, it tends to improve. There is considerable demographic evidence that investment in the health education, and economic growth of poverty groups may also contribute to a reduction of fertility and hence indirectly to better income distribution.

Ahluwalia and Chenery have, thus particularly emphasized the directing of public investment to raise the productive capacity and income of the poor. There is a strong analogy between this strategy and international strategy of assisting investment in poor countries. In both cases transfers of resources which increase productive capacity and lead to greater self-support in the future are both more efficient and more attractive to donors than continuing subsidies for consumption, in both cases, it should be possible to get greater political support for the more development approach.

2.8. Summary

The lesson briefly deals with the indicators of measuring inequality of income. Then it discusses two way relationship between income distribution and Economic growth i.e. the effect of Economic Growth on income distribution and the effect of income distribution on economic growth. It also discusses how market mechanism affects this conflict between income distribution and growth. Different policies have also been discussed which can bring growth with equality- the two important objectives of economic policy. In this regard, Kindlebergers and Harrick's suggestions and Ahluwalia and Chenery's observations have also been discussed.

2.9 Glossary

- Lorenz Curve – A graphical representation of inequality. Personal incomes in a country, for example, are arranged in ascending order : the cumulative share of total income is then plotted against the cumulative share of the population. The slope of this curve is thus proportional to per capita income at each point of the population distribution. For complete equality of income, the Lorenz Curve would be a straight line; it becomes more curved as inequality rises.
- Gini Coefficient – A statistical measure of inequality using the Lorenz Curve diagram, the Gini Coefficient can be found as the ratio of the area between the Lorenz Curve and the straight line connecting the ends of the Lorenz Curve to the total area under this straight line. A value of 0 for Gini denotes complete equality and a value of 1 gives maximum inequality i.e. all incomes is received by a single individual.
- Kuznet's Inverted U-Shaped Curve – A curve depicting the change in inequality over time during the process of economic development. He hypothesized that inequality would initially increase in the early stage of economic development, eventually it will decrease with more progress taking place in the economy. The evidence was consistent with the hypothesis until the

recent growth in inequality in many developed countries.

- Market Mechanism – In economics, market mechanism is a mechanism by which the use of money exchange by buyers and sellers with an open and understood system of value and time trade-offs in a market tends to optimize distribution of goods and services in atleast same ways.
- Price Signals – A price signal is information conveyed to consumers and producers, via the price charged for a product or service which provides a signal to increase or decrease supply or demand.

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2.12 Model Questions.

- Q.1. What is Gini coefficient?
- Q.2. How will you explain the effect of Economic Growth on Income Distribution.
- Q.3. Discuss the effect of Income Distribution on Economic Growth in brief.
- Q.4. What is Kuznet's curve. Does the empirical evidence support it?
- Q.5. Explain Kindleberger and Herrick's suggestions for bringing Growth with Equality.

AGRICULTURE-INDUSTRY LINKAGES – THE MODEL OF W.A. LEWIS

Structure

- 3.0 Objectives
- 3.1 Introduction
- 3.2 Theoretical basis of zero marginal productivity.
- 3.3 Lewis's Model of economic Development with unlimited supplies of labour.
 - 3.3.1 Role of Banking system
 - 3.3.2 Method for countering the Decline in Capital Formation and growth.
 - 3.3.3 Critical Appraisal of Lewis's Model
- 3.4 Relation between Agriculture and Industry
- 3.5 Summary
- 3.6 Glossary
- 3.7 References
- 3.8 Further Readings
- 3.9 Model Questions

3.0 OBJECTIVES:

After going through this lesson, you must be able to :

- explain the meaning of zero marginal productivity.
- describe the lewis model of economic development with unlimited supplier of labour.
- highlight the role played by the banking system in the economic development.
- discuss the relationship between agriculture and industry in any economy.

3.1 INTRODUCTION

In the previous lessons, you have studied the structural changes which take place in the economy during the process of economic development. You also studied about the behaviour of income distribution in the due course of economic development. One thing you might have noticed is that rate of growth of population is high in the developing countries and urbanization is also increasing day by day. Migration, which is one constituent of urbanization is also high particularly rural urban migration. One reason behind this migration is that agriculture is still backward in these countries. Too much population is engaged in this sector which leads to the low productivity of the labour. Hence in this lesson, you will be acquainted with some of the reasons for this backwardness of the agricultural sector. Using Arthur Lewis's famous model of 'Economic Development with Unlimited Supplies of Labour', we shall analyze in detail the key role that agriculture plays in the development process, including the release of labour from the land and the role played by surplus labour in fueling industrial growth.

Traditionally, the role of agriculture in economic development has been viewed as passive and supportive. Based on the historical experience of western countries, economic development was seen as requiring a rapid structural transformation of the economy from one predominantly focussed on agricultural activities to a more complex modern industrial and service society. As a result, agriculture's primary role was to provide sufficient low priced food and manpower to the industrial sector. Thus two sector model is an outstanding example of a theory of development that places heavy emphasis on rapid-industrial growth with an agricultural sector fuelling this industrial expansion by means of its cheap food and surplus labour. Since, the model is based on the concept of zero marginal productivity, let us briefly explain what is the theoretical basis of zero marginal productivity of labour in the agricultural sector.

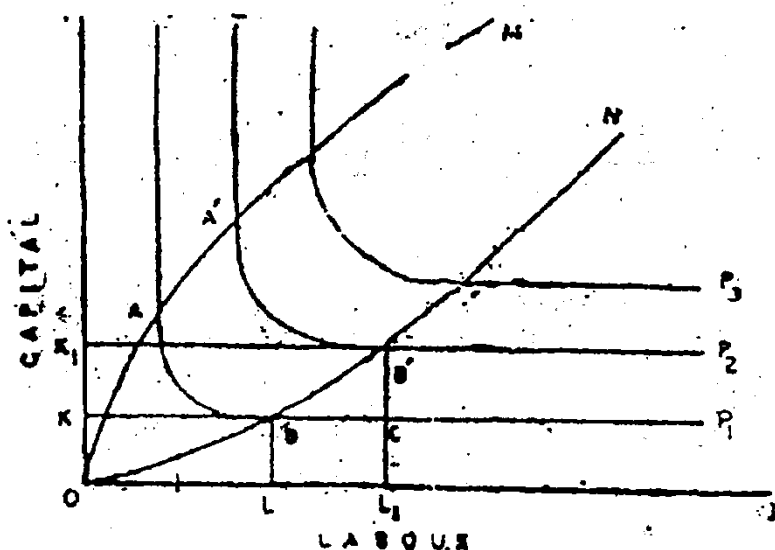
3.2 THEORETICAL BASIS OF ZERO MARGINAL PRODUCTIVITY

One explanation is that the technical co-efficients of production are constant so that additional, units of labour in a working combination will add nothing to the total product, unless additional units of all or some of the cooperating factors are also employed.

However, so far there has been no convincing illustration of its validity in the economic sense. On the contrary, the assumption of fixed technical co-efficients has been criticized by many economists like Jacob Viner, Haberler and Schultz. Viner contends that since fixed technical co-efficients are different, products have labour and capital in different proportions. Then it is possible to change the product mix in favour of those products with relatively high labour co-efficients to productively absorb any increment of labour.

Heberler regards it preposterous to assume that technical co-efficients are fixed in the agricultural sector of a primitive economy. According to T. W. Schultz it is impossible to construct even a theoretical model which would permit zero marginal productivity of labour for an appreciable part of the labour supply. Even a fractional transfer, say 5% of the existing labour force out of agriculture, with other things being equal, could not be made, without reducing production. This shows that those who are removed from agriculture were making positive contributions before their removal.

In the context, it would be appropriate to examine the ‘Limited Technical substitution and Inappropriate Factor Endowment’s hypothesis of R.S. Eckaus as illustrated in Fig, 1 .

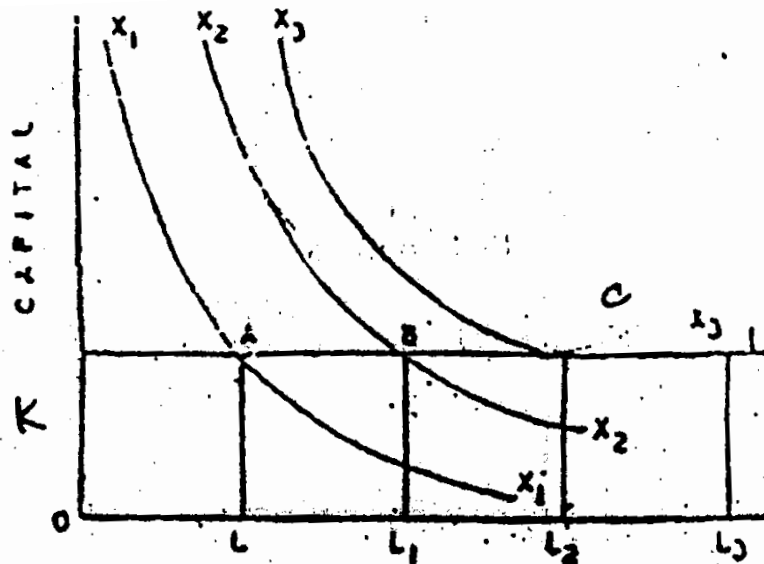


Limited Technical Substitution and Imperfect Factor Endowments

Fig. 1.1

"In Fig. 1, the iso-product P_1 , P_2 , P_3 are so drawn as to show a limited possibility of technical substitution between labour and capital along their respective curvilinear portions AB, A'B' and A''B'' within the ridge lines OM and ON. Beyond the ridge lines the marginal rate of technical substitution (MRTS) between labour and capital becomes zero and the iso-product curve outside the ridge lines becomes parallel to the axes on both sides. In underdeveloped countries due to the availability of plentiful labour, but with scarce capital, 'extra labour units (LL_1) will fail to produce extra units of output (i.e., produce a shift from iso-product curve P_1 , to P_2) unless additional units of capital (KK_1) are also made available. Their limited technical substitution coupled with inappropriate factor endowments leads to zero marginal productivity of employed labour and this breeds disguised unemployment.

However, even if we take for granted the fully variable technical co-efficients (variable) proportions production function there must be some finite quantity beyond which total output can not be further increased merely by increasing the units of labour employed in a given combination. This situation has been analysed independently by Benjamin Higgins (Economic Development) while discussing technological dualism and by J.S Uppal (disguised Unemployment in an underdeveloped Economy). Here this situation is portrayed in Fig. 2 by the iso-product curve X_3 which becomes a horizontal straight line after point C indicating that any further increase in. Labour beyond L_2 when combined with fixed amount of capital OK, will fail to increase output beyond X_3 .

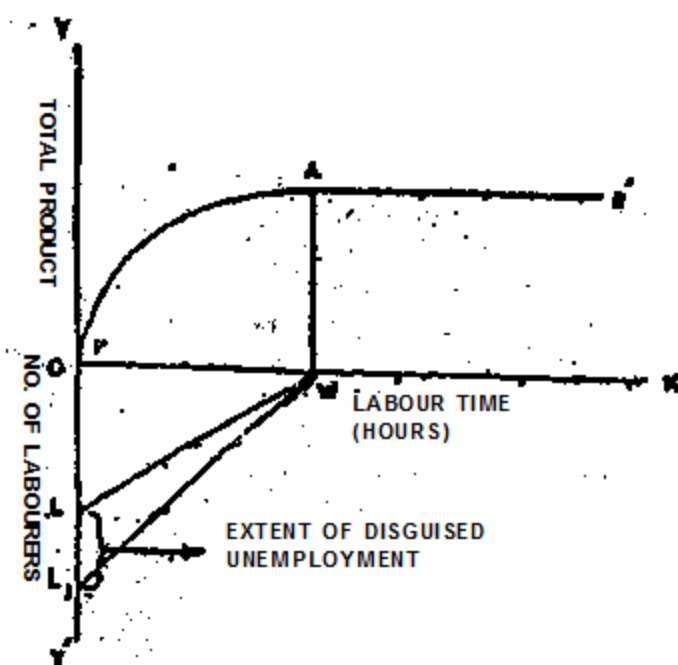


Variable Proportions Functions

Fig. 1.2

The preceding analysis, by various economists attempts to examine the precise meaning of disguised unemployment. However A.K. Sen's observation is pertinent to sort out the confusion about the existence of disguised unemployment as he distinguishes between the amount of labour and the number of labourers. According to him, *it is not that too much labour is being spent in the production process but that too many labourer are spending it.*

Actually, it is the labourers who are abundant: labour time is employed only upto the point where its marginal productivity is zero. In such a case disguised unemployment takes the form of a smaller than normal number of working hours per head per year. Although the marginal productivity of labour is just zero at the margin, the marginal productivity of the labour force is zero over a wide range. If each labourer is working less than normal hours of work, then the same product could be produced by fewer labourers working for normal hours. So, part of the labour force is surplus though, the fewer labourers must work more hours to produce the same output, thereby involving some sacrifice of leisure on their part. A. K. Sen employs Fig. 1.3 to explain his view.



A. K. Sen's Model.

Fig. 1.3

In Fig. 1.3, total product is shown on y-axis, labour time on X-axis and number of labourers on Y' axis. P AP' is the total product curve. Upto OW labour time, an increase in it increases total product, after which the total product becomes constant. So marginal productivity of labour time after OW is zero at the margin i. e. OL₁ is the total number of labourers employed to produce A W output, when each works for less than normal hours, whereas OL is the number of workers actually required to produce the same output (AW) by working normal working hours per head. So, the marginal productivity of labour force is zero over the range LL₁. This shows the extent to which disguised unemployment exists.

Nurkse essentially employs the term disguised unemployment to self-employed family labour on a farm. He does not apply it to hired farm labour (wage labour). But Lewis goes a step further and explains the co-existence of zero marginal productivity of hired labour and a positive wage rate based on customs and tradition e. g. in the case of menial servants, retainers, etc.

3.3 LEWIS'S MODEL OF ECONOMIC DEVELOPMENT WITH UNLIMITED SUPPLIES OF LABOUR

The use of surplus labour for economic development has been presented in a more systematic manner by W. Arthur Lewis in his well-known article -Economic Development with Unlimited Supplies of Labour. He emphasizes that the position in many underdeveloped countries conforms to the classical model wherein the supply of labour is perfectly elastic at the current wage rate. In other words, an unlimited supply of labour is available at a subsistence wage to the capitalist sector. The main sources from which the unlimited supply of labour is forthcoming consist of subsistence agriculture, casual labour, petty traders, domestic servants, women in the household and population growth. In an overpopulated country, in most, but not all, of these sectors, the marginal productivity of labour is either negligible, zero or even negative. Before we proceed with the study of this theory, let us first examine the premises on which it is based.

Some economists, including Lewis, Kurihara and Schultz do not share the optimism that economic development can be initiated by transferring disguisedly unemployed persons from peasant agriculture to industry without any fall in agricultural production. During the Planting and Harvesting seasons, entire labour force is occupied. May be, even some persons taking up casual jobs in industry have to be hired to assist in the busy seasons. In fact, the releases of a large number of workers from agriculture call for its reorganisation and mechanisation which again require a sizeable amount of investment. So, in the static sense, it is not possible to ensure a perfectly elastic supply of labour, to the industrial sector for economic development, by depending merely on disguisedly unemployed workers.

It is in this context that the Lewis model is more in accordance with reality, in many under-developed countries, in so far as unskilled labour is concerned. Lewis's logic is not based on disguised unemployment, instead, it requires the following three conditions:

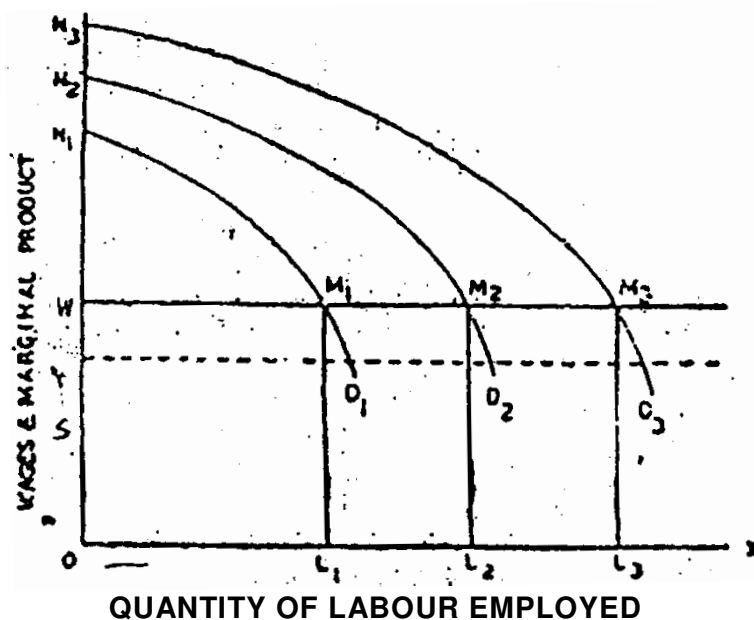
- (i) The wage rate in the industrial sector is above the marginal productivity of labour in the subsistence sector by a small but fixed margin.
- (ii) The investment in the industrial sector is not large relative to population growth.
- (iii) The cost of training the necessary number of skilled workers is constant through time.

The first condition is satisfied by many under-developed countries. If population is growing fast and the employment in the industrial sector is a small proportion of the total, the second condition is also satisfied. No doubt, the industrial employers require skilled labour also. However, Lewis contends that skilled labour is only a "quasi-bottleneck" which can be overcome by training the unskilled workers and converting them into skilled ones. So, in the short-run the, supply of skilled labour can also be infinitely elastic if training cost remains constant. Even in terms of long run supply of skilled labour over time the relevant factor is whether the cost of training is rising through time. In that case, Lewis's thesis holds as much for skilled labour as for unskilled labour if technical progress is such as to reduce both the capital-

labour ratio and capital output ratio simultaneously.

Diagrammatic Exposition

Lewis's model can be illustrated diagrammatically as shown in Figure 1.4. In it as represents subsistence earning and OW the capitalist wage. Supply of labour is perfectly elastic at the capitalist wage rate. The demand for labour "initially" represented by the marginal productivity curve of labour N_1D_1 . Assuming profit maximisation as the objective in the capitalist sector, labour is applied up to the point where its marginal productivity equals the ruling wage rate OW . So, the amount of labour initially employed, in the capitalist sector will be OL_1 . Out of the total product $ON_1M_1L_1$ in the capitalist sector. OWM_1L_1 will go as wages to workers and WN_1M_1 is reinvested; the amount of fixed capital increases and the marginal productivity curve of labour shifts to N_2D_2 . So, the capitalist employment will increase to OL_2 and with it the capitalist surplus will swell to WN_2M_2 . Its reinvestment further shifts the marginal productivity of labour curve to N_3D_3 . This pushes up capitalist employment further of OL_3 and capitalist surplus, to WN_3M_3 and thus, the process repeats itself.



Lewis's Model

Fig.1.4

Taking the two sectors viz. traditional and modern sectors together, we can illustrate the Lewis model by using the fig. 1.5. Consider first the traditional agricultural sector portrayed in the two right side diagrams of fig. 1.5. The upper diagram shows how subsistence food production varies with increases in labor inputs. It is a typical agricultural production function where the total output or product (TP_A) of food is determined by changes in the amount of the only variable input, labor (L_A), given a fixed quantity of capital K_A , and unchanging traditional technology E_A . In the lower right diagram, we have the average and marginal product of labour curve AP_{LA} and MP_{LA} , which are derived from the total product curve shown immediately above. The quantity of agriculture labour (Q_{LA}) available is the same on both horizontal axes

and is expressed in millions of workers, as Lewis is describing an underdeveloped economy where 80% to 90% of the population lives and works in rural areas.

Lewis makes two assumptions about the traditional sector. First, there is surplus labour in the sense that MP_L is zero, and second, all rural workers share equally in the output so that rural real wage is determined by the average and not the marginal product of labour. Assume that there are L_A agricultural workers producing TP_A food, which is shared equally as W_A food per person (this is the average product which is equal to TP_A/L_A). This zero marginal product of L_A workers is shown in the bottom diagram of fig 16.5(b); hence the surplus labour assumption applies to all workers in excess of L_A (this is shown by the horizontal TP_A curve beyond L_A workers in the upper right diagram).

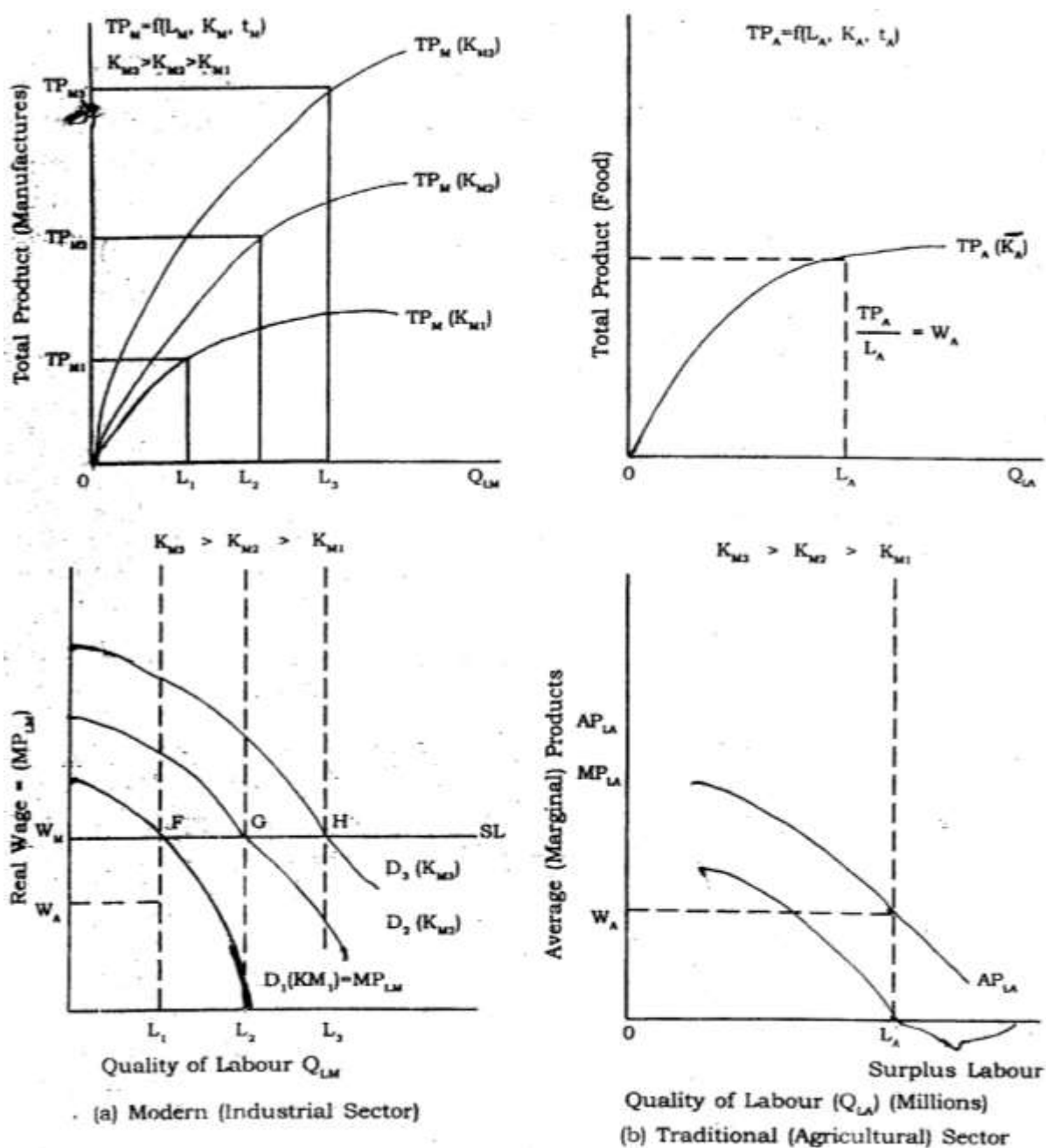


Fig. 1.5 : The Lewis model of modern sector growth in a two-sector surplus labour economy.

The upper left diagram of fig 1.5 (a) portrays the total product (production function) curves for the modern industrial sector. Once again, output of, say, manufactured goods (TP_M) is a function of a variable labour input, L_M , for a given capital stock K_M and technology E_M . On the horizontal axis, the quantity of labour employed to produce an output of say TP_{M1} with capital stock K_{M1} , is expressed in thousand of urban workers L_1 . In the Lewis model, the modern sector capital stock is allowed to increase from K_{M1} to K_{M2} and K_{M3} as a result of the reinvestment of profits by the industrial capitalists. This will cause the total product curves in fig 1.5 (a) to shift upwards from $TP_M(K_{M1})$ to $TP_M(K_{M2})$ to $TP_M(K_{M3})$. The process that will generate these capitalist profits for reinvestment and growth is illustrated in the lower left diagram of fig 1.5 (a). Here we have modern sector marginal labour product curves derived from TP_M curves of the upper diagram. Under the assumption of perfectly competitive labour markets in the modern sector, these marginal product of labour curves are in fact the actual demand curves for labour. Here is how the system works.

W_A in the lower diagrams of Fig 1.5 (a) and 1.5 (b) represents the average level of real subsistence income in the traditional rural sector. W_M in fig. 16.5(a) is therefore the real wage in the modern capitalist sector. At this wage, the supply of rural labour is assumed to be unlimited or perfectly elastic as shown by the horizontal labour supply curve $W_M S_L$. In other words, Lewis assumes that urban wage W_M above rural average income W_A . Modern sector employers can hire as many surplus rural workers as they want without fear of rising wages. Given a fixed supply of capital K_{M1} in the initial stage of modern-sector growth, the demand curve for labour is determined by labour's declining marginal product and is shown by the negatively sloped curve $D_1(K_{M1})$ in the lower left diagram. Because profit maximizing modern sector employers are assumed to hire labourers to the point where their marginal physical product is equal to the real wage (i.e. point F of intersection between the labour and demand and supply curves), total modern-sector employment will be equal to L_1 . Total modern sector output, TP_{M1} would be given by the area banded by points OD_1FL_1 . The share of this total output paid to workers in the form of wages will be equal to the area of the rectangle OW_MFL_1 . The balance of the output shown by the area WMD_1F would be the total profits that accrue to the capitalists. Because Lewis assumes that all of these profits are reinvested, the total capital stock in the modern sector will rise from K_{M1} to K_{M2} . This larger capital stock causes the total product curve of the modern sector to shift to $TP_M(K_{M2})$, which in turn induces a rise in the marginal product demand curve of labour which is shown by the line $D_2(K_{M2})$ in the bottom half of fig. 16.5 (a). A new equilibrium modern sector employment level will be established at point G with L_2 workers now employed. Total output rise to OD_2GL_2 while total wages and profit increase to OW_MGL_2 and W_MD_2G respectively. Once again, these larger (W_MD_2G) profits are

reinvested, increasing the total capital stock to K_{M3} , shifting the total product and labour demand curves to $TPM (K_{M3})$ and to $D_3 (K_{M3})$ respectively, and raising the level of modern sector employment to L_3 .

This process of modern-sector self-sustaining growth and employment expansion is assumed to continue until all surplus rural labour is absorbed in the new industrial sector. Thereafter, additional workers can be withdrawn from the agricultural sector only at a higher cost of lost food production because the declining labour to land ratio means that the marginal product of rural labour is no longer zero. Thus the labour supply curve becomes positively sloped as modern sector wages and employment continue to grow. The structural transformation of the economy will have taken place, with the balance of economic activity shifting from traditional rural agriculture to modern urban industry.

3.3.1 Role of Banking System

In addition to profits, capital is also formed out of credit creation by the banking system, the private sector and by government borrowings from the central bank, (deficit financing in the public sector). This Credit-cum deficit financed capital formation supplements capital formation financed but of real savings and thus promotes and accelerates rate of investment, thereby leading greater and quicker utilization of surplus labour, in spite of the initial scarcity of capital. This initially leads to an inflationary price rise, as the increase in money income resulting from payments made out of credit will exceed the output of consumables, which remains unchanged to begin with.

However, according to Lewis, 'such an inflation will be self-destroying rather than cumulative. Since as soon as the output of consumer goods starts increasing, the prices will come down to their normal level. As the process 'of capital formation goes on, employment and output expand and so do profits. Large profits lead to saving and thus a stage is reached when real saving rise enough to get equal to the inflated level of investment, then credit creation will no longer be required to finance new investment any further. Obstacles to indefinite growth according to Lewis, the process of growth resulting from the use of surplus labour in the expanding capitalist sector cannot go on indefinitely. It must stop on account of the following reasons :-

- (i) When capital accumulations has caught up with population growth and no surplus labour is left, the process of growth will come to a halt. The rise in wages, due to the scarcity of labour, will now reduce, and ultimately, eat-up the, capitalists' surplus. However, it can stop even earlier. Lewis assumption of constancy of wage level is unrealistic.
- (ii) The fast expansion in the capitalist sector leads to an absolute decline in population in the subsistence sector. This pushes up the average productivity of labour in this sector, thereby raising the wage rate in the capitalist sector, for the wage here depends on the productivity of labour. This also reduces the amount of surplus available.
- (iii) The expansion of the capitalist sector relative to subsistence sector results in-rise in prices of food and raw materials, thereby turning the terms of trade against the former and, thus forcing the capitalists to pay higher wages to workers, in order to keep their real income constant. The result is a reduction of the surplus which is to be reinvested.

- (iv) If the subsistence sector adopts improved techniques, this will raise productivity in that sector, thereby raising real wages in the capitalist sector, and lowering the volume of surplus in the sector.
- (v) The worker in the capitalist sector imitate the capitalist way of life and may need higher wages to live at their higher standards of life and may, thus, cut into the surplus which is a sine quanon for economic development. So, this will also be a factor in calling a halt to growth process.
- (vi) Surplus generated in the growth process may be spent on unproductive purposes by the rich class.
- (vii) Myrdal shows that the industrial development may not be so fast as to absorb the labour transferred.

3.3.2 Method for Countering the Decline in Capital Formation and Growth

However, the process of capital formation can still be kept going either by stimulating immigration (or import) of labour from, or export of capital, to, the underdeveloped countries possessing abundant supplies of labour at the subsistence wage rate. A mass immigration is bound to adversely affect the local wage-rate, therefore, it is strongly opposed by the trade unions and so is not a very solid proposition.

The best way is to resort to the export of capital as trade, unions can have little control over it. Capital export reduces capital formation at home, and, so keeps wages 'down'. This is offset if capital export results in cheapening the goods which workers import or raises wage cost in competing countries. On the other hand, the loss to the domestic workers in the form of low wages is aggravated if the capital export for investment, in another country, results in raising the cost of import, or reducing the wage cost in competing countries which will adversely affect exports of the capital-exporting country.

3.3.3 Critical Appraisal of Lewis's Model

This model has been the target of criticism on several counts. The important amongst them are briefly discussed below :-

- (i) The model assumes abundant supply of labour which is not true of many South American and African underdeveloped countries. Even in over-populated countries, surplus labour is more of a seasonal rather than of a permanent character. Moreover, without technical and institutional changes, transfer of surplus labour, from subsistence sector to the capitalist sector is likely to be accompanied by a decline in agricultural production, thereby exploding the myth of abundant labour with negligible or zero marginal productivity.
- (ii) Though Lewis regards the shortage of skilled labour only as a quasi bottleneck yet, there is no denying the fact that skill-formation poses a serious problem, in the context of a multitude of unskilled labourers due to its expensive and time consuming nature.
- (iii) The rural labour force is generally so intensely attached to its family and farm that it is not going to be easy to wean them away, from their traditional base, merely by offering them, something extra in the form of a 'subsistence plus' wage in the capitalist sector.

Other factors like differences in customs, language, caste, exposure to strange urban environment, problems of congestion, housing, health and high cost of living, will also hinder the mobility of labour to the capitalist sector.

- (iv) Contrary to Lewis's assumption, the capitalist class, with enterprise and initiative, is conspicuously missing in under-developed countries. Thus, the entire superstructure of economic development, based on this unrealistic, assumption, crumbles like a frail house of cards.
- (v) Lewis pre-supposes the operation of an investment multiplier in the form of capitalist class continuing to invest profit in the process of capitalist formation. However, it is seldom applicable to under-developed countries as rise in wages and or fall in profits halts the process before the entire surplus labour is fully absorbed.
- (vi) The practical experience of many under-developed countries belies Lewis's view that inflation, for the purpose of capital formation, is self-destructive, as more often than not, it gathers momentum, and become cumulative, in the face of a continued and acute shortage of consumer goods, due to structural rigidities, on the one hand, and a very high marginal propensity to consume, on the other. Thus inflation retards capital formation, and may become self-generating, instead of self-destroying.
- (vii) Lewis assumes that whatever is produced, in the capitalist sector, is either consumed or exported. He overlooks the possibility of an inadequacy of aggregate demand resulting from the capitalist sector's inability to sell its products to the subsistence sector, which might halt to the process of growth.

In spite of above-said limitations; Lewis's dual economy model is useful in explaining the process of capital formation in under-developed countries with plenty of labour and scarcity of capital. His study of credit-inflation, population growth, technical progress etc. impart a touch of realism to his model. What is clearly of prime significance is the way investment becomes a rising proportion of national income.

Self Assessment Questions

1. Conceptualize the term zero-marginal productivity.

2. Enlist the conditions necessary for Lewis Model.

3.4 RELATION BETWEEN AGRICULTURE AND INDUSTRY

In formulating strategies for economic development, planners are usually confronted with the problem of choosing between agricultural and industrial development. In fact, it is argued that the relation between agriculture and industry is comparative.

However, in the long run, agriculture and industry are complementary rather than being

competitive.

We have seen that agriculture provides the potential for capital accumulation in industry by providing a marketable surplus. The greater the surplus, the cheaper the industry can obtain food and the more saving and capital accumulation can be undertaken. This is the supply side. But industry also needs a market for it—industrial goods which in the early stages of development must largely come from agriculture. This is the demand side, and the higher the price of agricultural goods the greater agricultural purchasing power will be. Given this conflict between low food price being good for industrial supply and high food prices being good for industrial demand, what is required is a simple model which brings together agriculture and industry in an equilibrium framework, where the terms of trade between agriculture and industry provide the equilibrating mechanism thus ensuring that the supply and demand grow at the same rate in each sector.

Let us first consider growth in the agriculture sector in relation to the terms of trade, then growth in the industrial sector and then bring the two together. Agriculture's growth rate will be a function of how much investment goods it obtains from industry in exchange for food that it 'saves' and this depends on the price of the industrial goods relative to food i.e. on the terms of trade between industry and agriculture. The higher the price of investment goods, the less investment possible for a given amount of food and the lower the growth of supply capacity. The relation between the industrial terms of trade (the price of industrial goods relative to the price of food) and the agricultural growth rate (g_A) is shown in the Figure (1.6) below.

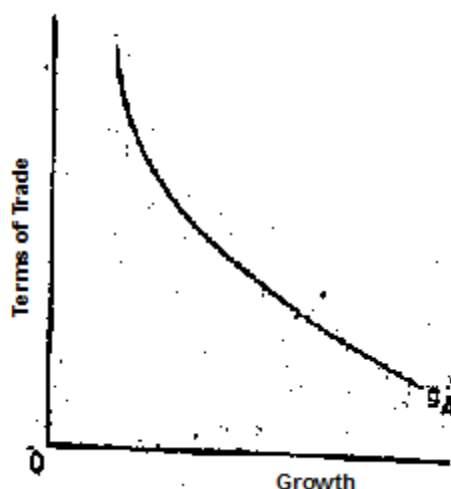


Fig. 1.6

Industry's growth rate will also be a function of its investment ratio and the productivity of investment. But there is a certain minimum to the terms of trade below which industry would not be able to invest anything because all output would be required to pay workers' wage goods (food). If all wages are consumed, the cost of food inputs per unit of output in industry will depend on the real wage rate in industry divided by the productivity of labour, i.e. $W/(O/L)=W/O$, where w is the real wage and W is the wage bill. Industrial prices must cover W/O , and this sets the lower limit to industrial prices relative to food prices. At the other extreme, industrial growth cannot exceed a certain maximum where the price of industrial goods is so high relative to the

price of food that agriculture buys no industrial goods and all industrial goods are retained for reinvestment in industry. The investment ratio approaches, in effect, 100 percent, and the upper limit to growth is given by the productivity of investment. The relation between the industrial terms of trade and the industrial growth rate (g_I) is shown in the figure 1.7 below.

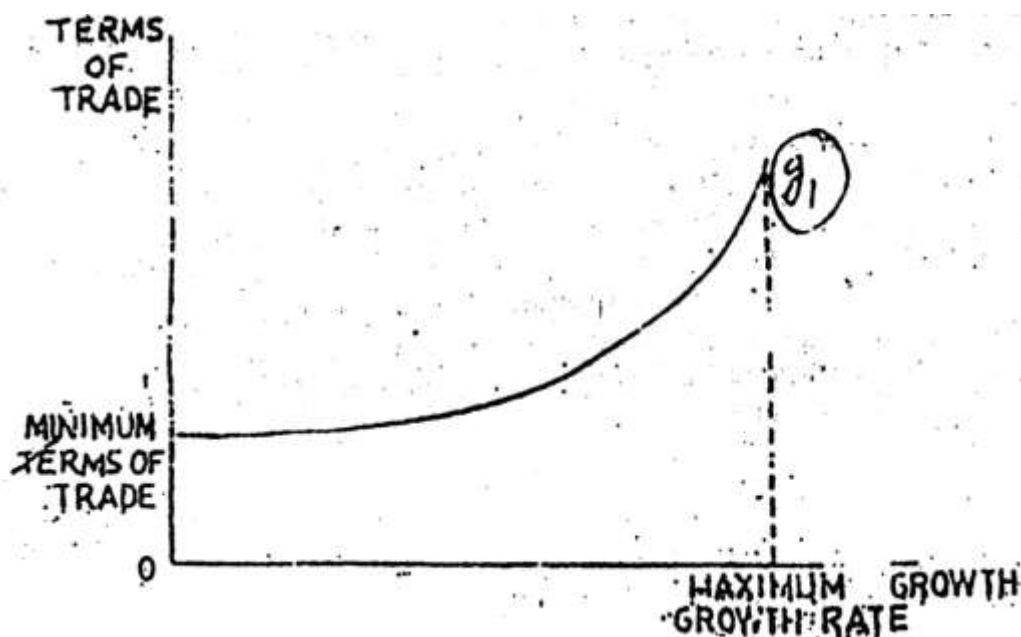


Fig. 1.7

If we now assume for simplicity, (although without loss of generality) that the income elasticity of demand for agriculture and industrial goods is unity, then at a given terms of trade, the rate of growth of agricultural output represents the rate of growth of demand, for industrial, goods and the rate of growth of industrial output represents the rate of growth of demand for agricultural output, and where g_A and g_I cross there will be balanced growth of agriculture and industry (g^*) at an equilibrium terms of trade (P^*) as shown in the figure 1.8 below.

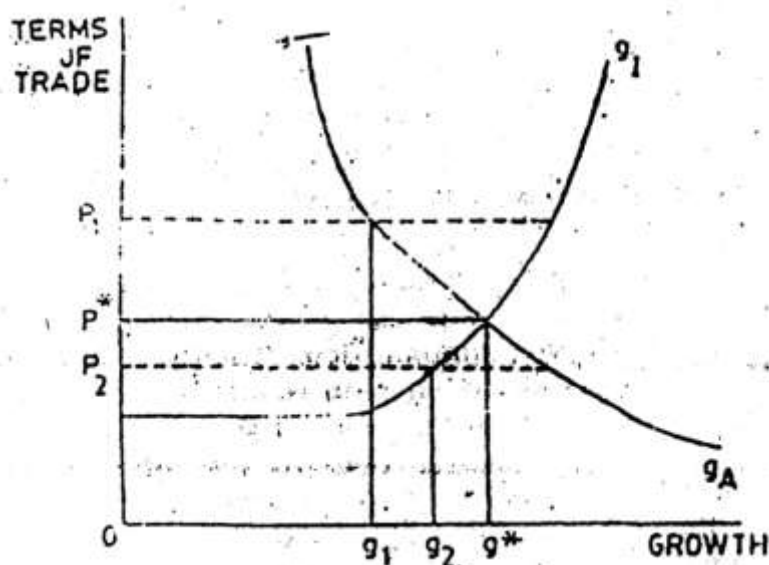


Fig. 1.8

In this model of the complementarity between agriculture and industry, we can see the implication of what happens if the terms of trade are not in equilibrium and the check to the expansion of industry that Lewis mentions.

If the terms of trade are not in equilibrium—if the price of food is ‘too low’ or ‘too high’ in relation to industrial goods then industrial growth is either demand constrained or supply constrained. For example if in the above figure, the terms of trade were at P_1 , because the price of food was ‘too low’ industrial growth would be demand constrained to g_1 by a lack of agricultural purchasing power over industrial goods. Industry could accumulate capital, but it could not sell its goods. Alternatively, if the terms of trade were below equilibrium at P_2 , industrial growth would be supply constrained to g_2 because the price of food was ‘too high’ impairing capital accumulation in Industry. Agriculture could buy, but industry could not supply.

We can now examine what happens if there are shifts in the curves. Clearly shifts in the curves will cause both the growth rates and the equilibrium terms of trade to vary. An improvement in agricultural productivity which shifts g_2 outwards will mean both Higher industrial growth and an improvement in the, industrial terms of trade. The importance of agricultural productivity improvement could not be better illustrated. An improvement in industrial productivity will shift g_1 outwards which will also mean higher industrial growth but at the expense of a worse terms of trade for industry. If there is a tendency for real wages in industry to rise commensurately with productivity increases, however, the g_1 curve will remain stable and the terms of trade will never move against industry in favour of agriculture unless agricultural productivity falls and the g_2 curve shifts inwards.

The checks to industrial expansion in Lewis’s model ‘are easily illustrated. A rise in the real wage in industry will shift the g_1 curve inwards which will choke industrial expansion unless there is an equivalent increase in agricultural productivity shifting the g_2 curve outwards.

A final implication of the model is that if through time, agriculture is subject to diminishing returns, productivity in agriculture will fall, shifting inwards the g_2 curve and reducing the rate of industrial ‘growth. If the g_1 curve is relatively stable, industrial growth depends fundamentally on the rate of land saving innovations (technical progress) in agriculture to offset the effect of diminishing returns.

3.5 SUMMARY

In this lesson, Lewis analyses the process of economic expansion, in terms of inter sectoral relationship in a dual economy, composed of a “capitalist” sector and a “subsistence” sector. The capitalist sector, which consists of manufacturing, plantations and mines, defines as that part of the economy which uses reproducible capital, pays capitalists for the use thereof and employs wage labour for profits making purposes. The subsistence sector is that part of the economy which does not use reproducible capital, in other words, it is the indigenous traditional sector or the self-employed sector. In this sector, as already mentioned in the beginning of this theory, the marginal productivity of a labourer is zero (or even negative), as a limiting case, and average product, though positive, is much lower than in the capitalist sector.

A fundamental relationship between the capitalist sector and subsistence sector is that when the former expands, it draws labour from the later which in a densely-populated country and with a high rate of population growth is the overall source of unlimited supply of labour comprising of specific sources already listed.

In Lewis’s model, the wage at which the surplus labour drawn from the subsistence sector is employed in the growing capitalist sector, is determined by what the worker earns in the subsistence sector. Subsistence wage, in turn, is governed by a conventional view of the minimum required for subsistence or by the average product per man subsistence agriculture. The capitalist wage will have to be somewhat higher than subsistence wage, so as to wean surplus labour force away from traditional life of the subsistence sector and also to overcome friction or cost of moving from the Subsistence to the capitalist sector. So, at the existing wage in the capital sector, which is usually 30% higher than subsistence earnings, the supply of labour is considered to be perfectly elastic for an expanding capitalist sector.

Since marginal productivity of labour in the capitalist sector is higher than the current wage rate, this results in capitalist surplus of profits. This surplus is reinvested in creating new capital, thereby generating a driving force in the system, which in turn raises the marginal productivity of labour; and results in more employment of labour in the capitalist I sector which, consequently, expands. With this, the capitalist surplus or profits become still large as capital formation in which technical progress is also included by Lewis, result not in raising wages, but in raising the capitalist surplus or the share of profits in national income. Now the higher profits are again reinvested. Thus the expansion of the capitalist sector goes on progressively absorbing surplus labour from the subsistence sector.

Here, Lewis very rightly points out that savings are low in an under-developed economy, not because- people are poor, but because capitalist profits are low relative to national income. It is these profits which grow relatively, as the capitalist sector expands thus, result in increasing the rate of capital formation from 4% or 5% to 12 to 15% of national income.

3.6 GLOSSARY

- Quasi-bottleneck : Shortage for short time and is solved in longer period.
- Subsistence Sector : Traditional Agricultural/ Rural sector where earnings just meet costs.

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3.8 FURTHER READINGS

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3.9 Model Questions

- Q1. What do you mean by zero marginal productivity?
- Q2. Explain in detail the model given by Lewis for economic development.
- Q3. Discuss the importance of complementarity between agriculture and industry for economic development.

FEI AND RANIS MODEL OF ECONOMIC GROWTH

Structure

- 4.0 Objectives
- 4.1 Introduction
- 4.2 The Agricultural Sector
- 4.3 The Industrial Sector
- 4.4 Agricultural Surplus as a wage fund
- 4.5 Necessity of Labour Reallocation
- 4.6 The Turning Point in Fei-Ranis Model.
 - 4.6.1 Impact of Increase in the Productivity of Agricultural Labour on the Supply curve of labour in the Industrial Sector.
 - 4.6.2 Importance of the 'Turning Point'.
 - 4.6.3 The Growth Path
 - 4.6.4 Critical Evaluation of the Model
- 4.7 Summary
- 4.8 Glossary
- 4.9 References
- 4.10 Further Readings
- 4.11 Model Questions

4.0 Objectives

After going through the lesson, you should be able to:

- describe the type of the production function in the agricultural sector
- explain the type of the production function in the industrial sector
- identify the sources of capital stock in the industrial sector
- understand the use of agricultural surplus as a wage fund
- discuss the turning point in Fei-Ranis Model
- outline the superiority of Fei-Ranis model over the Lewis model.

4.1 Introduction

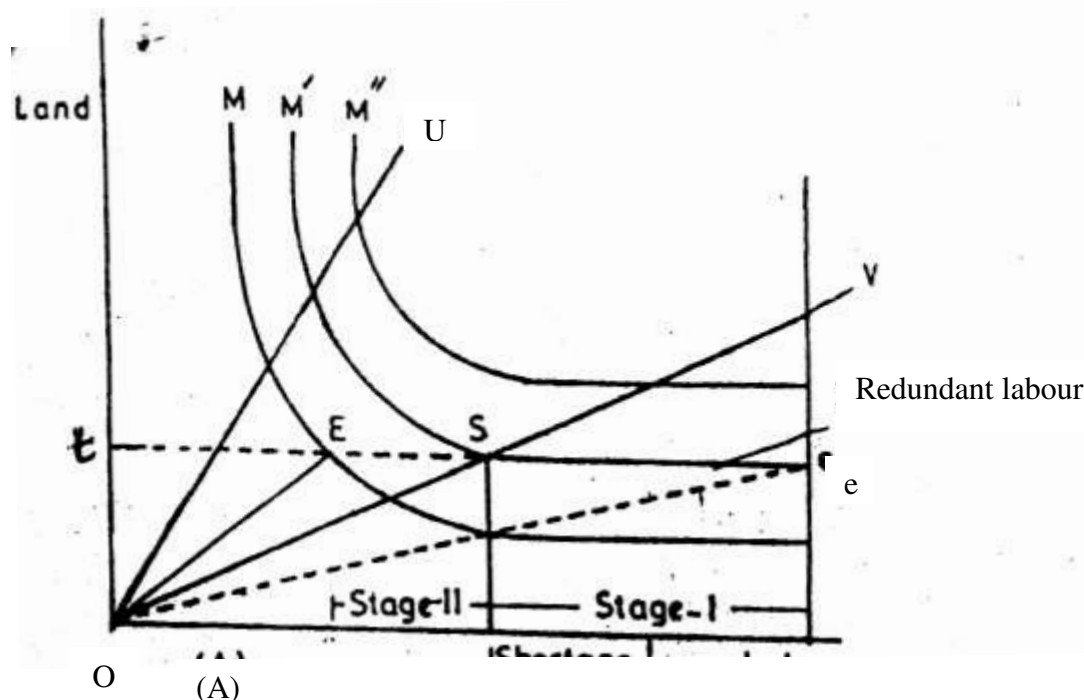
In the last lesson, we studied about the Lewis model based on the interfacing of agricultural and industrial sector. Another model of agriculture-industry relationships is

developed by John. C.H. Fei and Gustav Ranis which we will study in the present lesson. They criticized the Lewis theory of unlimited supply of labour on the ground that it does not represent a satisfactory analysis of the agricultural sector growth. They then improved its version in their very famous article, 'Theory of Economic Development'. Like Lewis, they also considered a labour surplus economy and defined two sectors—a large primitive agricultural sector co-existing with a small but 'hopefully growing industrial sector. According to them, "In such a dualistic (two-sector) setting, the heart of the development problem may be said to lie in the gradual shifting of the centre of gravity of the economy from the agricultural to the industrial sector. Such a process can be gauged in terms of the reallocation of the population between the two sectors in order to promote a gradual expansion of industrial employment and output. Simultaneously, increases in agricultural productivity must be sufficient to permit a relatively smaller percentage of the total population to support the entire economy with food and, raw materials". Let us explain the situation in these sectors in detail.

4.2 The Agricultural Sector

Fei and Ranis model is based on the, premise that agricultural sector is the predominant sector of the underdeveloped labour surplus economy i.e. over population is the main characteristic of the agricultural sector. This denotes the persistence pressure of population against scarce natural resources, mainly land, thus leading to an initially bad but worsening (overtime) land-man ratio. The condition of technology being stationary, the law of diminishing returns operate more vigorously as land is cultivated more intensively i.e. agricultural output is subject to diminishing returns.

The following figure (8.) represents the production function exhibiting these product conditions of the agricultural sector.



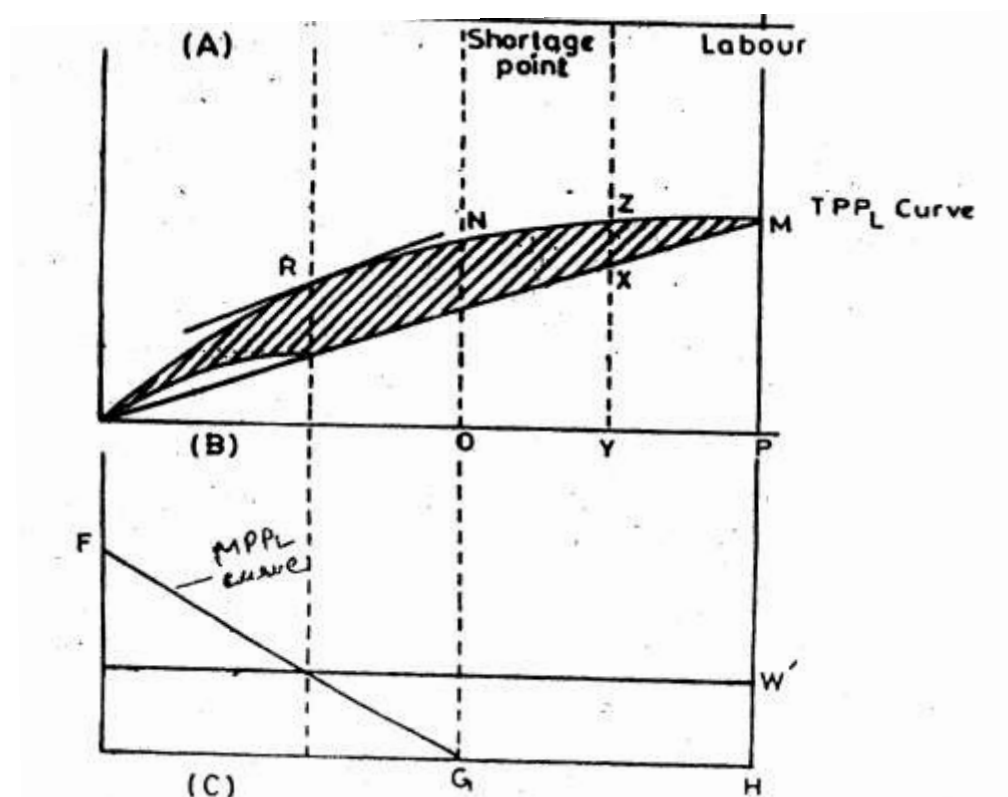


Fig. 4.1

The factors of production used as inputs are labour and land. The production contour lines are represented by curves M, M' and M'' etc. Ridge lines OV and OU indicate the region of factor substitutability-factors can be substituted within the area enclosed by these ridge lines but not beyond. For instance, the production contours become perfectly horizontal below the ridge line OV indicating that with land held constant, any further increases of labour render that factor redundant, as output can no longer be increased.

In the figure, when the amount of land is fixed at ot , the amount of labour that can be employed without becoming redundant is ts : Total labour in the agricultural sector is given as te in part A of the figure. Therefore, the redundant agricultural labour force is equal to es and the non-redundant labour force is st units.

Units of labour that can be productively employed (without redundancy) per unit of land has been called labour utilization ratio, by Fei and Ranis. In-terms of figure.

Labour Utilization ratio $R = ts / ot$. Which is the inverted slope of the ridge line OV.

If the actual factor endowment in the agricultural sector is given at point e , with Ot units of land and te units of labour, a measure of the relative availability of the two factors of production can be calculated. This has been termed as 'endowment ratio'.

i.e. $S = te / ot$. Which is the Inverted slope of the radial line Oe . As is clear, the endowment ratio measures the actually existing population density or number of workers per unit of land in the agricultural sector.

Since we have assumed a total labour supply of te of which ts units of labour are non-redundant while se are redundant, the ratio ts/te can be given the name “non-redundancy coefficient”. If this is denoted by T , then.

$$T = ts / te.$$

This will measure the fraction of the existing agricultural labour force which is ‘productive’. Also $T = ts/te = (ts/ot) / (te/ot) = R/S$. Which shows that T is directly proportional to the labour utilization ratio R (determined by the existing state of the arts) and inversely proportional to the endowment ratio S (population density), according to Fei and Ranis.

Parts B and C of the figure depict total physical productivity of labour (TPP_2 and marginal physical productivity of labour MPP_2 respectively. Part B shows that TPP_2 increases at a decreasing rate when more and more labourers are added to a fixed amount of land. At point N , this curve becomes horizontal. This point corresponds to the point G in part C depicting zero MPPL. Points G and N line up vertically with point s on the ridge line OV of part C.

4.3 The Industrial Sector

In industrial sector; the role is essentially required to the expansion of the surplus labour released by the agricultural sector and to a gradual expansion of the industrial productive capacity and output. However, in contrast to the agricultural sector, where major inputs consists of land and labour, the essential primary inputs in industrial sector are capital and labour.

Accordingly, in the following figure (4.2) (part A) labour is represented on the horizontal and capital is represented on the vertical axis.

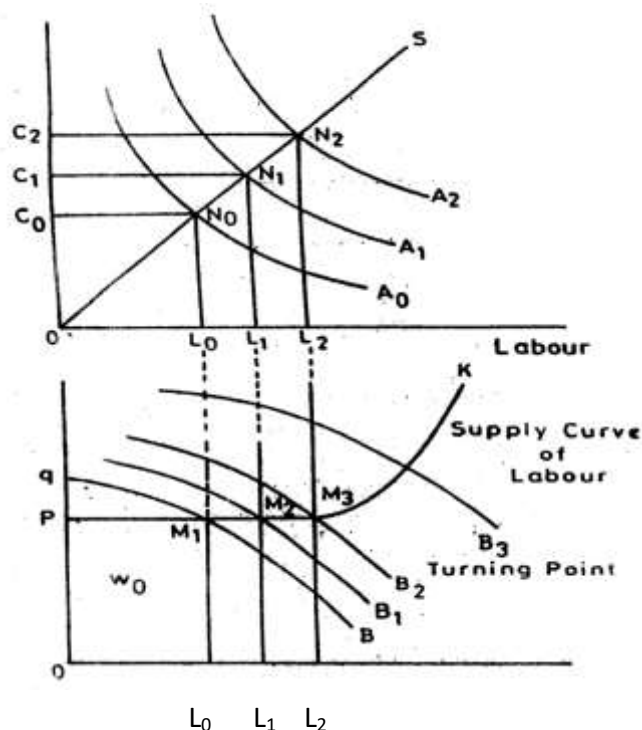


Fig. 4.2

In part A, Isoquant curves are labelled as A_0 , A_1 and A_2 . In both sectors, Fei and Ranis assume constant returns to scale. OS is the expansion path. At a higher point on this curve, both capital and labour are used in greater quantities. According to them, due to existence of redundancy in agricultural labour force, the agricultural sector may be a chief source of labour supply to industrial sector. But it does not mean a physical movement of population as a demographic change rather it implies that services of labour can be made available to the industrial sector on payment according to a given supply curve, the shape of which is determined by the forces functioning in agricultural sector. Therefore the supply curve of industrial sector is exhibited by M_1 , M_2 and M_3 in part B which is vertically lined up in part A. Here the real wage in terms of industrial goods is measured on the vertical and industrial labour has a horizontal part M_1 , M_2 etc. It exhibits due existence of a pool of redundant labour force which further is reflected in the constancy of real wage rate at OP. The industrial labour supply curve turns upwards at point M_3 which reveals that extra supply of labour can be obtained only through increasing the real wages. This is known as the turning point in Lewis model, the point from where agricultural labour starts moving from agricultural sector to the industrial sector. So marginal physical productivity curve of labour (MPP_L) can be drawn corresponding to various levels of capital stocks C_0 , C_1 , and C_2 . For instance, MPP_L curve B_0 is drawn at corresponding capital stock C_0 . With this capital stock C_0 , in the industrial sector, the equilibrium employment position is obtained at M_1 , as supply curve cuts the MPP_L curve on this point. Similarly other equilibrium employment situations are obtained. At point M_1 , the magnitude of total real wages is W_0 represented by the shaded area $OL_0 M_1 P$. So equilibrium profit is $PM_1 Q$. A plausible assumption in this regard being that industrial wage earners do not save much due to low levels of incomes, the major source of investment funds originating in the industrial sector is only the industrial profits (TT_0). The second source of capital accumulation is the hidden rural savings denoted by S_0 . Therefore, total investment fund of industrial sector is $\pi_0 + S_0$. (assuming all profits are saved). 0,

$$\text{Therefore } C_1 = C_0 + S_0 + \pi_0$$

With this, new capital stock C_1 , a new MPP_L curve can be obtained as B_1 , in part B. This provides a new equilibrium position M_2 which means that employment in industrial sector has increased to L_1 . This process of increasing industrial activity continues as the total supply of investment funds continue to increase. Thus industrial employment also continues to increase. But the question arises here is -How do hidden rural savings emerge? This is explained in the following paragraphs.

In part B of Fig. 2.1 total agricultural population, is OP indicating the existence of a redundant labour force of size QP. Total agricultural output at this point is PM. Therefore for average productivity of the total agricultural labour force, denoted by APP_L is

$APP_L = MP/OP$. Which is the slope of the diagonal straight line OM. Fei and Ranis assume that real wage is equal to this average productivity of labour. This hypothesis is designated by them as the "constant institutional wage" C/W hypothesis. Under this hypothesis, the real wage level is indicated by the slope of OM in part B, which is shown by the horizontal line WW' in part C of the figure.

As noted earlier, the total agricultural labour force is OP in part B. When a portion of redundant labourers PQ is allocated out of agricultural sector i.e. absorbed in the industrial sector, the size of the labour force remaining in the agricultural sector may be represented by some such, points as Y (to the left of P). Hence the remaining labour force in agricultural produces an output

of YZ units while its real income (determined by C/W) is XY units. The difference XZ (between the agricultural output YZ and the wage income XY) represents a surplus of agricultural goods. This is designated as 'total agricultural surplus' (TAS) by Fei and Ranis. This TAS emerges as a result of the allocation of a part of redundant labour force out of the agricultural sector. According to them, it is in this sense that we can think of the removal of redundant agricultural labour as freeing a hidden source of rural savings for deployment in the development effort. This surplus can be siphoned out as an investment fund for the development of the industrial sector. Thus, the allocated agricultural manpower PY (converted into industrial workers) and the resulting total agricultural surplus XZ (converted into industrial capital) together represent the contribution that the agricultural sector makes to the expansion of the industrial sector.

4.4 Agricultural Surplus as a Wage Fund

In order to have better understanding of the significance of the total agricultural surplus both the sectors of the economy should be considered simultaneously. This has been done in fig. 4.3 where upper diagram is for the industrial sector and the lower for the agricultural sector. This figure is a summary form of the figures 4.1 and 4.2. The demand and supply conditions of labour are presented in the upper part of the figure. The total agricultural productivity curve (TPP_L) is presented in the bottom part. The only change incorporated is that the latter diagram has now been inverted in a sense that the original origin is now located at the upper right hand corner. Therefore, labour inputs are now measured to the left of point O while the total output is measured downward from O . This change makes it easy to consider the previous two figures together. For instance, if, initially the entire labour force OA is in the agricultural sector represented in diagram 4.3(b), then, as AG units of labour are transferred, the same labour force can be shown as OG' units in the industrial sector in the fig. 4.3(a). The labour force that remains in the agricultural sector is then OG . Therefore, points such as G, D, I, P fig. 4.3 (b) and its equivalent in fig. 4.3(a) represent a division of constant population OA between the two sectors at any point in time.

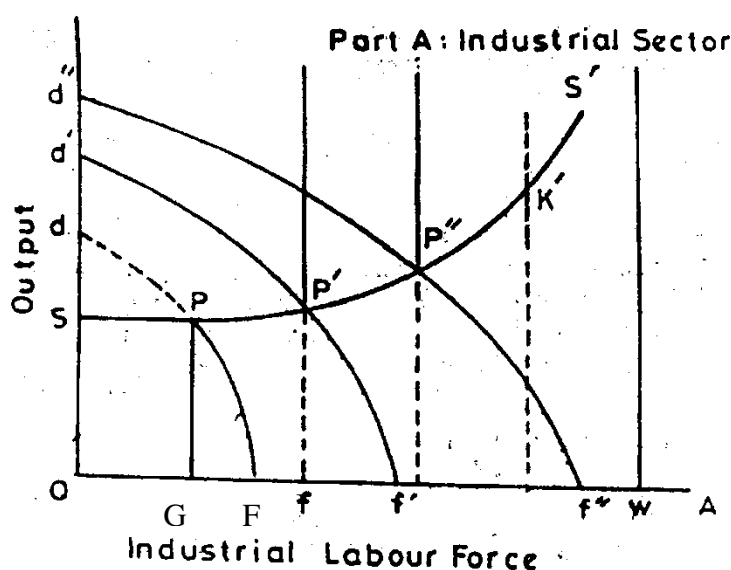


Fig. 4.3(a)

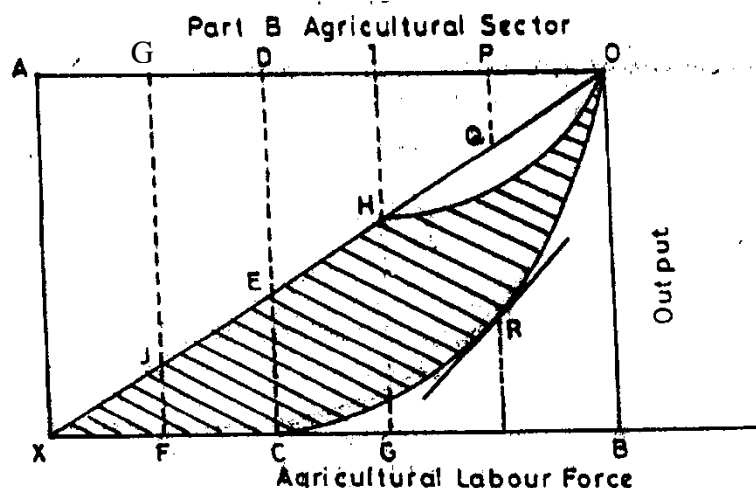


Fig. 4.3(b)

Let, us consider the industrial sector. The initial demand curve (the MPP_L curve) for labour is indicated by the curve df . Together with the supply curve of labour, the short run equilibrium employment point is given by the point P . Thus OG' units of labour are employed in the industrial sector and OG units are left in the agricultural sector (fig.4.3b). The OG units of labour left in the agricultural sector produce a total output of GF units of which GJ units are consumed within the agricultural sector and JF units constitute the agricultural surplus (TAS). AG units of labour which were previously redundant and unproductive in the agricultural sector are now productively employed in the industrial sector. This is clear from the fact that they are now producing a total volume of industrial goods represented by the area $OG'Pd$ and receive a total wage income equal to $OSPG'$.

The total agricultural surplus JF which is generated when $AG (=OG')$ units of labour leave the land is still needed by the same workers for consumption. Therefore, TAS can be viewed as a wages fund. This shows that the agricultural sector is capable of providing, simultaneously, the manpower and the accompanying wages fund required for productive activities elsewhere.

Thus a strategic role is played by the agricultural sector, in Fei and Ranis model, for the expansion of the dualistic economy. They are of the opinion that if TAS is larger, a greater proportion of it will be directed towards productive investment which in turn leads to the higher growth rate of the economy. Thus TAS, alongwith the profits generated in the industrial sector determines the pace of industrial growth. It must be large enough so that industrial real capital goods can be built up rapidly enough to provide sufficient employment opportunities through time. A successful shift of agricultural sector to industrial sector requires that the rate of increase of real capital stock must exceed the rate of population growth.

4.5 Necessity of Labour Reallocation

From the above paragraphs, one thing is clear i.e. as much labour should be reallocated from the agricultural sector to industrial sector as is possible. But one point which arises here is: where is the necessity for this labour reallocation? Fei and Ranis are of the opinion that this is must in order to shift the centre of gravity from the primary sector to the industrial sector i.e. secondary sector. So faster the process of labour reallocation, faster is the growth of the economy concerned.

But here they have mentioned the effect of increase in productivity of agricultural labour on the process of transfer of labour to the industrial sector. According to them there are two factors which can delay the upward turn in the labour supply curve for the industrial sector or keeping the supply of labour unlimited. One is the increase in productivity of agricultural labour and the other is the growth in population. The following diagram explains the views of the authors regarding the impact of increase in agricultural productivity of labour on the process of transfer of labour from the agricultural sector to the industrial sector. The diagram consists of three parts namely fig. (4.4a), fig.(4.4.b), fig(4.4.c).

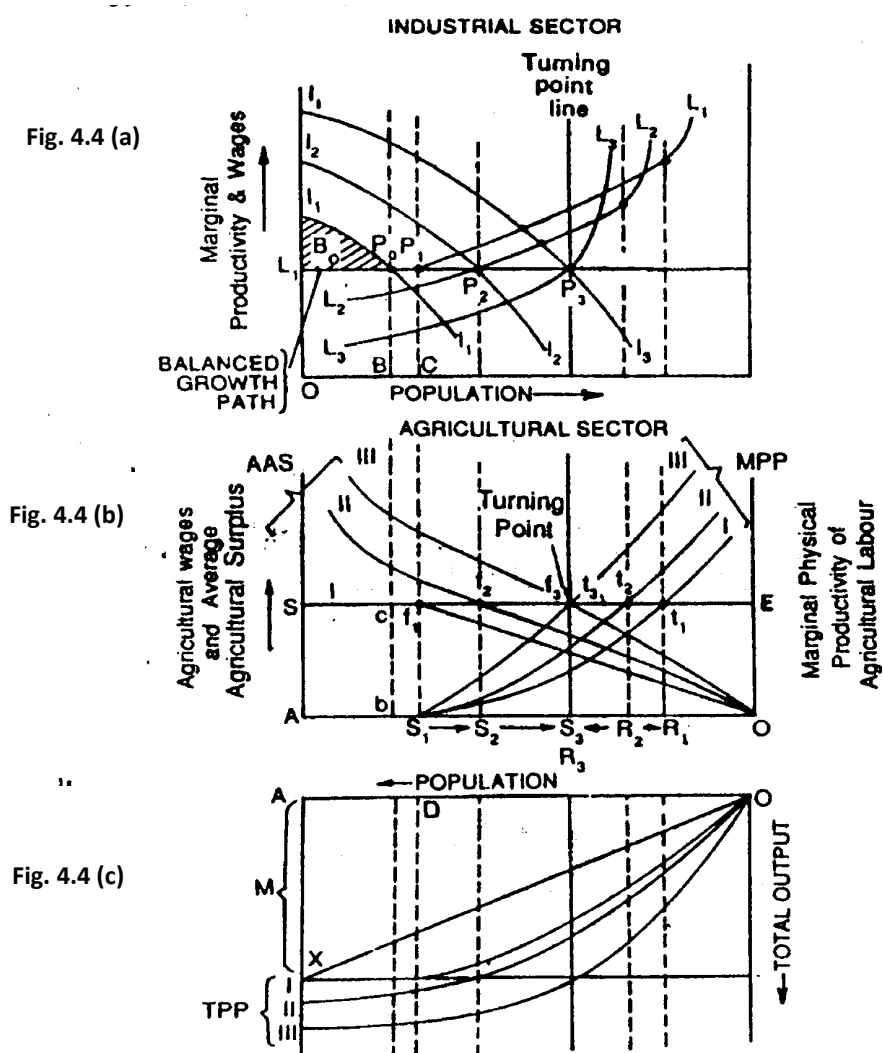


Fig. 4.4

In first instance, the authors assume that even if the productivity of labour increases, the institutional or subsistence wage paid in the agricultural sector remains unchanged. It is also assumed that the total labour force as well as the proportion of the zero value labour in the total labour force remains unchanged even when the productivity of the agricultural labour increases. Fig 2.4 (c) shows the increase in labour productivity through a change in the total productivity

curve from the original curve TPP_I to TPP_{II} and then TPP_{III} . Fig 2.4 (b) shows the impact of change in productivity of agricultural labour on (a) average agricultural surplus and (b) the marginal physical productivity of agricultural labour.

With regard to the average agricultural surplus, it is said that with increase in productivity agricultural labour, the average agricultural surplus increases and it becomes more that the institutional wage even in the original first phase (S_1 is the end of the original 1st phase). But it declines as more and more labour is transferred from the agricultural sector to the industrial sector. The two additional average agricultural surplus curves marked II & III, besides the original one marked I show this change. These curves shows that the average agricultural surplus falls below the institutional wage at points towards the right of the original point. In other words it can be said that the end point of the phase I itself (where average agricultural surplus equalizes the institutional wage) shifts to the right with every increase in labour productivity. S_2 & S_3 indicate such new end points in phase I in fig 2.4(b). This figure also shows the shifts in the marginal physical productivity curve of agricultural labours. Where as the old marginal productivity curve (MPP) is represented by the curve marked I, the new marginal productivity curves are marked II & III. Since it is assumed that the proportion of the zero value labour in the total labour force remains the same, marginal productivity is always zero for this part of the labour force. As such, all curves showing marginal productivity of agricultural labour coincide so far as the employment of this part of the labour force is concerned. In fig 2.4(b) marginal productivity of agricultural labour is zero for the labour. After SI, higher productivity of agricultural labour means shifting of the marginal productivity curve towards the left of the original curve. This, in other words means that the point of commercialisation of agriculture (the beginning of phase-II, where marginal productivity of labour becomes higher than the institutional wage) is reached earlier than before.

4.6 The Turning Point in Fei & Ranis Model

It is noted that whereas increase in productivity of agricultural labour pushes the end point of the first phase (also called the shorter age point) to the right through increase in average agricultural surplus, it also pushes the point of 'commercialisation of agricultural' towards the left. According to Fei & Ranis, there is bound to be a particular increase in productivity of labour which will make the end of 1st phase and the beginning of III phase coincide with each other. Phase II will disappear. In fig 2.4(b) this point is reached at S_3 where average agricultural surplus and marginal productivity of labour are both equal to the institutional wage. The authors call it the 'turning point'. (This point is not the same as in Lewis model. This point is arrived at after there is a certain amount of increase in agricultural productivity). This concept is very important in the model.

4.6.1 Impact of increase in the productivity of agricultural labour on the supply curve of labour in the industrial sector.

For this purpose let us consider fig 2.4 (a). In this figure L_1 P_1 L_1 is the original labour supply curve OL_1 is the equivalent of the institutional wage prevailing in the agricultural sector but paid in terms of industrial goods. Now, as the average agricultural surplus increases due to increase in labour productivity in the agricultural sector, terms of trade will change in favour of the industrial sector. A smaller basket of industrial goods will have to be paid for ensuring the equivalent of the old institutional wage in the agricultural sector. Hence as the average

agricultural surplus declines with more and more transfer of labour to the industrial sector, the terms of trade will change in favour of agriculture and wages paid to the transferred labour in terms of industrial goods will go on rising.

The new supply curve for industrial labour (because of increase in the productivity of labour in the agricultural sector) will thus start from a point below the old wage OLI in the industrial sector and go on moving upwards to the right (L_2L_2 and L_3L_3 are the new labour supply curves for the industrial sector). There is no horizontal portion in the new supply curve of labour.

One more point is to be noted here in this regard. Each curve, based on a relatively greater increase in the productivity of agricultural labour, though lying below the previous curve (showing comparatively a small increase in productivity) in the beginning, intersects this curve at some point above the level of institutional wage. For example, curve L_3L_3 intersects both L_2L_2 and L_1L_1 curves and curve L_2L_2 intersects curves L_1L_1 . In other words, new labour supply curve don't lie below the previous labour supply curve throughout. This is because according to Fei Ranis, in the first instance, each change in terms of trade against agricultural due to its increasing average agricultural surplus because of increase in the productivity of agricultural labour will push down the supply curve of industrial labour. But at the same time increase in agricultural productivity will make the new supply curve for industrial labour move upwards to the right more steeply, for that part of the transferred labour which is paid, not the institutional wage, but a higher amount which is equal to its marginal productivity in the agricultural sector. Following this, the authors of the model imply that greater the increase in the productivity of agricultural labour, lower will be the supply curve for industrial labour in the beginning and greater will be its gradient in its later part and as a result, it will be ultimately intersecting the curve corresponding to a smaller increase in agricultural productivity at one point or the other.

Let us explain here another point, with new supply curves of labour, it is quite possible that the wages determined in industrial sector by the equation of new supply curve of labour and the demand curve of labour (represented by its marginal productivity) are lower than before. However, even the lower wages, so determined because of a favourable terms of trade for the industrial sector, due to increased productivity of agricultural labour, will ensure an amount of food grains equivalent to the institutional wage prevailing in the agricultural sector of the marginal productivity curve of industrial labour also moves higher due to more investment in the industrial sector, the wages can rise back to the old level of institutional wage when paid in terms of industrial goods. In other words, one can say that more labour can be employed at the old institutional wage, as it prevailed initially in the industrial sector, after the labour productivity has risen in the agricultural sector. It can be said that Lewis' upward 'turning point' is postponed with increase in the productivity of labour in the agricultural sector.

4.6.2 Importance of the 'Turning Point'

According to Fei & Ranis, 'turning point' is the limit upto which, Lewis's turning point can be pushed towards the right when increase in agricultural productivity takes place. As soon as this point is crossed, wage in the industrial sector must become higher than the original institutional wage prevailing in the industrial sector. This is simply because wages in the competing agricultural sector, after the 'turning point' are above the institutional wage itself.

4.6.3 The Growth Path

The horizontal line in fig 2.4(a) showing the institutional wage in the industrial sector has been called the balanced growth path upto the 'turning point'. According to Fei & Ranis, the two

sectors should grow in such a manner that the wages in the industrial sector coincides with the old institutional wage upto the turning point. If only the agricultural sector develops, the industrial wage cannot fall below the original institutional wage. But once this lower wage is fixed, the industrial sector will not be able to employ more labour than that which is available at this wage. More labour is available to industrial sector only at a higher wage. The industrial sector, therefore, should expand and increase the marginal productivity of its labour. Because it is only then that it can afford a higher wage in terms of industrial goods. Similarly, if the industrial sector wages are higher than the original institutional wage these should be brought down if the industrial sector is to grow upto the turning point smoothly. In case this is not done, higher wages will unnecessarily eat up the surplus in the industrial sector which could otherwise be used for the expansion of this sector. It is possible to reduce the wages in the industrial sector by increasing the productivity of labour in the agricultural sector and thereby to shift the supply curve for industrial labour to the right. They thus suggest that the ideal solution before the 'turning point' is to develop both the sectors in such a way-may be, one at a time that the initial advantage (or disadvantage) in terms of trade acquiring to the two sectors is maintained and the institutional wage (as originally paid in terms of industrial products) prevails in the industrial sector.

After the 'turning point' has been reached, the institutional wage loses its importance. Agriculture becomes commercialised and wages in this sector are higher than the institutional wage and so will be the wages in the competitive industrial sector. Wages in the industrial sector can't be constant after the 'turning point'.

Self Assessment Questions

1. Explain the meaning of the redundant labour.

2. What is labour utilization ratio?

3. Describe the term Marginal Physical Productivity.

4. Give meaning of the wage fund.

4.6.4 Critical Evaluation of the model

Though Fei and Ranis model is an improvement over the Lewis theory of unlimited supply of labour and lays emphasis on interaction between the two sectors of the economy and brings about the importance of agro products in capital accumulation yet the model is not free from the drawbacks. The following are the limitations of the model.

The model is based on the assumption of fixed supply of land which has lost its validity in the present day developing economies because the supply of land has been enhanced.

The two economists do not make any distinction between wage labour and household labour. While the distinction is quite relevant for analysing the prices of dualistic development in a less developed economy. Ghatak and Ingergent brought forward a major limitation of the model for its inability to consider the role of money and prices in the development process. They state, it has been argued that money is not a simple substitute for physical capital in an aggregate production function. There are reasons to believe that the relationship between money and physical capital could be complementary to one another at some stage of economic development, to the extent that credit policies could play an important part in easing bottlenecks on the growth of agriculture and industry”.

Fei and Ranis model is considered to be lop sided and it is said that MPP of labour is zero with a fixed amount of land. This assumption has been questioned by Harry T. Oshima and others. According to Oshima if some size of population in agriculture is large enough to render MPP zero, then in such cases, the excess population will move to the cities and in the short run will be openly unemployed as in the case of most parts of Asia today. Oshima's views have received support from many others. Charles H.C. Kao, Kurt R. Anshel and Karl E. Eicher in their survey article on distinguished unemployment have examined five important studies of disguised unemployment in Thailand, India, Italy and Greece and have arrived at the conclusion: To date, there is little reliable empirical evidence to support the existence of more than taken 5 percent disguised unemployment in underdeveloped countries as defined by a zero marginal product of labour and the condition of *ceteris paribus* (Charles et al. Disguised unemployment in Agriculture; A Survey quoted in Misra and Puri; Economics of Development and Planning).

Lastly, a closed economy has been assumed in the model which ignores the positive role played by the international trade in the development process of any economy. Different commodities are imported by the underdeveloped economies in case of shortages and they also export certain commodities to increase their revenue. This point has not been given due consideration in this model.

4.7 Summary

In this lesson we discussed the Fei & Ranis model in detail. Despite the limitations, it can be said that the Fei and Ranis model provides a systematic insight of the development process of the labour surplus economies. By bringing out the importance of interaction between agriculture and industry sectors of the economy, process of sustained growth has been given a realistic meaning.

Whereas Lewis model only explains that surplus agricultural labour can be used in the capital formation process in the capitalist sector in urban areas, Fei-Ranis model explains that agricultural surplus can also be used as a wage fund in the industrial sector. In this sense it can be said that this model is an improvement over the Lewis' model.

4.8 Glossary

- Production Function : A function showing the maximum output possible with any given set of inputs. The expression of production possibilities by a production function assumes that inputs are used efficiently, so the production function is the upper boundary of the production set.

- **Agricultural Surplus** : It is the portion of the total agricultural output in excess of the consumption requirements of the agricultural labour force at the constitutional (subsistence) wage rate, according to Fei-Ranis.
- **Turning Point** : This is the point at which successful development is assured. In Fei-Ranis model, these are two turning points. The first is that at which redundant labour has been eliminated from the agricultural sector. The second is at which disguised unemployment in the traditional sector has also been eliminated. This point appears at a very late stage in economic growth.
- **Constitutional Wage** : It is the wage at which the average physical productivity of total agricultural labour force (APP_L) = wage.

4.9 References

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4.10 Further Readings

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2. Myint, H (1973) : *The Economics of Developing Countries*. London. Hutchinson University Library.
3. Thirlwal, A.P. (2011). *Economics of Development : Theory and Evidence*. U.K. Palgrave, Macmillan.
4. Todaro, M.P. & Stephen C. Smith (2012). *Economic Development*. Pearson Education Ltd.

4.11 Model Questions.

- Q1. Briefly explain the sources of capital in the Industrial sector.
- Q2. What do you understand by the institutional wage rate?
- Q3. How does agricultural sector play an important role in the expansion of dualistic economy?
- Q4. What do you mean by the 'Turning Point' in Fei-Ranis model?

- Q5. Critically evaluate Fei-Ranis model of interaction between agriculture and industry in an economy?

RURAL-URBAN MIGRATION : HARRIS - TODARO MODEL

STRUCTURE

- 5.0 Objectives
- 5.1 Introduction
- 5.2 Harris-Todaro Model
 - 5.2.1 The Model
 - 5.2.2 Analysis of Unemployment Equilibrium
 - 5.2.3 Implication for Development Policy
- 5.3 The Lewis Versus Harris-Todaro view of under employment in less developed countries
- 5.4 Summary
- 5.5 Glossary
- 5.6 References
- 5.7 Further Readings
- 5.8 Model Questions

5.0 OBJECTIVES

After going through the lesson you should be able to :

- explain the background of the model
- describe the working of the model
- identify the equilibrium point in the model
- outline the implications of the model for the development policy
- discuss the comparison between the Lewis model and Harris-Todaro model

5.1 INTRODUCTION

In the last lesson, we studied the Fei-Ranis model which was based on the interfacing of agriculture and industrial sectors. We came to know, how agricultural surplus labour can be used as a wage fund in the industrial sector. In this lesson we will study another model named Harris-Todaro model which is based particularly on the industrial sector. In the 1950s it was widely assumed that developing countries were bound for an urban- industrial future. Urbanization and manufacturing industry were the most potent indicators of modernity. In the case of urbanization, however, the optimism of the 1950s soon gave way to the fears that cities in the developing world were parasitic and not generative, a distinction outlined by Hoselitz in 1957 (Hoselitz, 1957). He believed that most third world cities would serve a generative economic and cultural role for the areas around them. The rapid

urbanization of parts of the third world became a problem for policy-makers and not a sign of progress as it had been just a few years earlier.

Such rapid urbanization could partly be explained with reference to the isolation paradox. Migrants to the city often leave for the countryside unaware that countless other individuals and families were also bound for the bright lights. Competition for urban jobs proved more intense than many expected. Migrants needed special favours or kinship links to break into industries closely controlled by trade unions. Yet urbanization is clearly also stimulated by the belief that life will be better for poor people in the city and this is the message, in fact, given by Harris-Todaro model of migration which is based on the expectations of the potential migrants from rural areas. This model is explained below.

5.2 HARRIS- TODARO MODEL

A good many of the underdeveloped economies are faced with numerous problems which differ in nature and magnitude. These problems are, however, fascinating, imperative and neglected than rates at which development proceeds through successive generations in different countries. John R. Harris and Michael P. Todaro, undertook, an exhaustive study into problems confronting these economies. Problems of migration of labour from one sector to another and unemployment are certain problem that they studied. Thus, the 'Migration, unemployment and Development model' based on two sectors study was prepared. While presenting the model, they observed, "Despite the existence of positive marginal products in agriculture and significant level of urban unemployment, rural labour migration not only continues to exist, but indeed, appears to be accelerating. Conventional economic models 'with their singular' dependence on the achievement of a full employment equilibrium through appropriate wage and price adjustments are hard put to provide rational behavioural explanation for these sizeable and growing levels of urban unemployment in the absence of absolute labour redundancy in the economy as a whole."

One characteristic feature of this model is that migration proceeds in response to urban- rural difference in expected earnings with the urban employment rate acting as an equilibrating force on such migration.

5.2.1 THE MODEL

The basic model conceives of a two-sector internal trade model with menacing unemployment. The two sectors are urban and rural. Urban sector specializes in the production of manufacturing goods, a part of which are transferred to the rural sector. The rural sector is free to employ all the available labour either, and produce a single agricultural product in small quantity. The whole of the labour force is not employed and certain portion migrates to the urban sector. One important assumption in this context is that migrant retains his contacts with rural sector and the income he earns is considered to be accruing to the rural sector.

Then the model assumes that rural-urban migration will continue so long as the expected urban real income at the margin exceeds the real agricultural product. It is a crucial assumption. It is also assumed that aggregate urban labour force consists of a permanent urban proletariat which has no ties with the rural sector plus the available supply of rural migrants. A periodic random job selection process is assumed as a result of which urban wage equates fixed minimum wage times proportion of urban labourers actually employed. Finally, it is assumed that perfect competition prevails among buyers in both the sectors. The model is explained through following equations.

Agricultural Production Function

$$X_A = f(N_A, \bar{L}, \bar{K}_A) \quad f' > 0, f'' < 0 \quad \dots\dots(I)$$

Where X_A is the output of agricultural goods

N_A is rural labour employed to produce this level of output .

$\bar{L}$ is the fixed availability of land

K_A is the fixed availability of capital.

f' is the derivative of f with respect to N_A .

Industrial Production Function

$$X_M = \mu(N_M, \bar{K}_M) \quad \dots\dots(I)$$

$$\text{where } \mu' > 0, \mu'' < 0 \quad \dots\dots(II)$$

This is the manufacturing production function. X_M is the output of manufactured goods. N_M is total labour required to produce this output. $\bar{K}_M$ is fixed capital stock. μ' is the derivative of μ with respect to N_M .

Price Determining function

$$P = \phi(X_M / X_A) \quad \phi' > 0 \quad \dots\dots(III)$$

P is the price of agricultural goods in terms of the manufacturing goods.

Agricultural Real Wage determination equation

$$W_A = P f' \quad \dots\dots(IV)$$

where W_A is the agricultural real wage equating the value of labourer's marginal product in agriculture expressed in terms of manufactured goods.

Manufacturing real wage

$$W_M = \mu' \geq \bar{W}_M \quad \dots\dots(V)$$

Real wage in manufacturing sector is expressed in terms of manufactured goods and equates the marginal product of labour in manufacturing due to profit maximisation on the part of perfectly competitive producers. However, this wage is constrained to be greater than or equal to the fixed minimum urban wage.

Urban expected wage

$$W_u^e = \frac{\bar{W}_M N_M}{N_u}, \text{ where } \frac{N_M}{N_u} \leq 1 \quad \dots\dots(VI)$$

W_u^e is expected real wage in urban sector, and this is equal to the real minimum wage ($\bar{W}_M$) adjusted for the proportion of the total urban force actually employed $\left(\text{i.e. } \frac{N_M}{N_u} \right)$. Only in case of full employment in the urban sector ($N_M = N_u$) is the expected wage equating the minimum wage i.e.

$$W_u^e = \bar{W}_M.$$

Labour Endowment

$$N_A + N_u = \bar{N}_R + \bar{N}_u = \bar{N} \quad \text{.....(VII)}$$

There is a labour constraint stating that the sum of workers actually employed in agricultural sector (N_A) plus the total urban labour force (N_u) must equate the sum of initial endowments of rural ($\bar{N}_R$) and permanent urban ($\bar{N}_u$) labour which in turn equates total labour endowments, $\bar{N}$.

Equilibrium Conditions

The following equity conditions is required for equilibrium. It is derived from the hypothesis that migration to the urban area is a positive function of urban rural expected wage differential.

$$W_A = W_u^e \quad \text{..... (VIII)}$$

A Propos.

$$N_u = f\left(\frac{\bar{W}_M N_M}{N_u} P f'\right) \quad \text{..... (IX)}$$

where $f' > 0, f(0) = 0$

where N_u is time derivative.

This means that *migration shall cease only when expected income differential is zero*. This condition is expressed in equation VIII. The model contains eight equations and eight unknowns.

These unknowns are $X_A, X_M, N_A, N_M, W_A, W_u^e, N_u$ and P .

Given the production functions and fixed minimum wage $\bar{W}_M$, it is possible to solve for sector employment, the equilibrium unemployment rate and consequently the equilibrium expected wage, relative output level and terms of trade.

5.2.2 Analysis of Unemployment Equilibrium

It has been argued that in most of the developing countries the existence of an institutionally determined urban wage at- substantially higher wage rates tend to an equilibrium with considerable urban unemployment. In equilibrium

$$\bar{W}_M N_M / N_u = P f' \quad (\text{from equation IX}) \text{ which means cease of migration.}$$

Equation V implies that in competitive urban manufacturing sector, $\bar{W}_M = \mu'$ and from Equation VII we can get

$$\bar{N} - N_A = N_u \text{ and from equation III, } P = \phi(X_M / X_A)$$

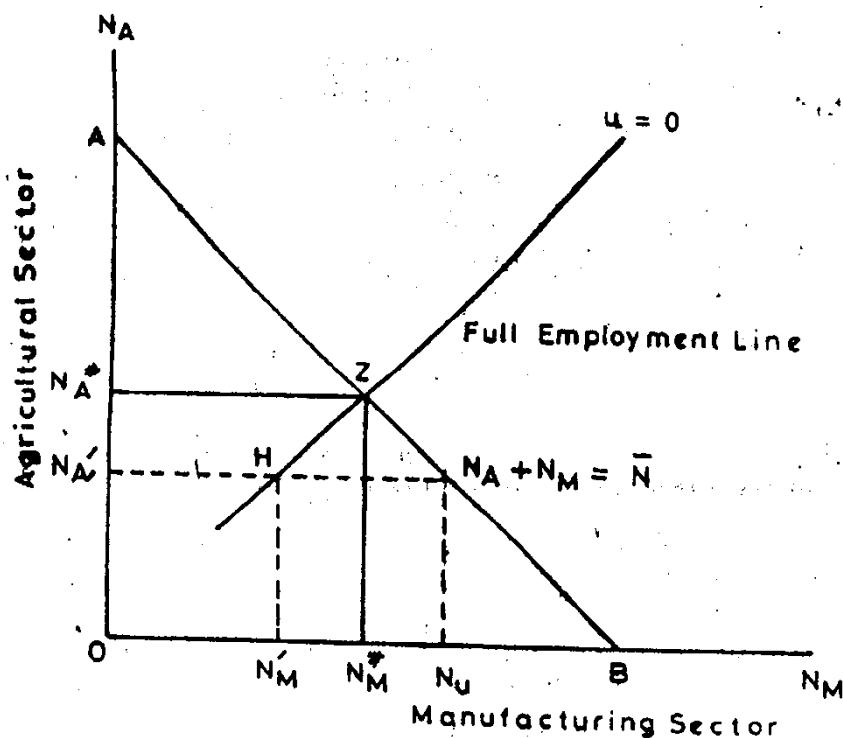
Hence equation IX can be rewritten as

$$\mu = \phi(X_M / X_A) f' - \frac{\mu' N_M}{N - N_A} = 0 \quad \text{..... (X)}$$

Since X_M and X_A are functions of N_M and N_A respectively, μ is an implicit function of N_A and N_M which, for any selected minimum wage can be solved for equilibrium combination of agricultural and manufacturing employment.

In the present model, migration implies a disequilibrium phenomenon.

From this solution levels of urban unemployment and commodity outputs can also be determined. There shall however be a unique equilibrium associated with each possible value of the minimum wage, and the locus of these equilibria are plotted in the following figure on the line $U=0$ in N_A, N_M space.



AB line in the fig. represents the locus of full employment points. Z point is the only equilibrium point at which N_A is the employment level in the agricultural sector and N_M^* in the manufacturing sector. All points on $u=0$ (ie. full employment line) but lying east of point Z are infeasible and shall therefore not be considered. While all points to the west of Z are associated with minimum wage higher than the full-employment wage. Higher minimum wages are associated with points on $u = 0$ lying farther to the west. So setting of a minimum wage above the market clearing level tends the economy to settle at point H. At this point N_A^1 workers are employed in agriculture, N_M^1 in the manufacturing sector. Thus $N_u - N_M^1$ remain unemployed. So despite being the equilibrium point, H represents the sub-optimum situation for the economy as a whole and does represent a rational, utility maximizing choice for individual rural migrants given the level of minimum wage, but one point may arise at this level. So far it has been assumed that the urban minimum wage is fixed in terms of manufacturing wage goods. If it would have been fixed in terms of agricultural goods -what will be the result. In this case equation V shall have to be replaced by

$$W_M = \mu / P \geq \overline{W_M} \quad \dots (XI)$$

Substituting equations IV, XI and VI into equation VIII, following equilibrium relationship emerges.

$$Pf' = \frac{(\mu' / P) N_M}{N_u} \quad \dots (XII)$$

It can then be conceived that an economy starting initially at a point on the production possibility frontier at which XM is that for which equation XII is satisfied and assumes following condition at that point.

$$Pf' < \frac{(\mu' / P)N_M}{N_u} .$$

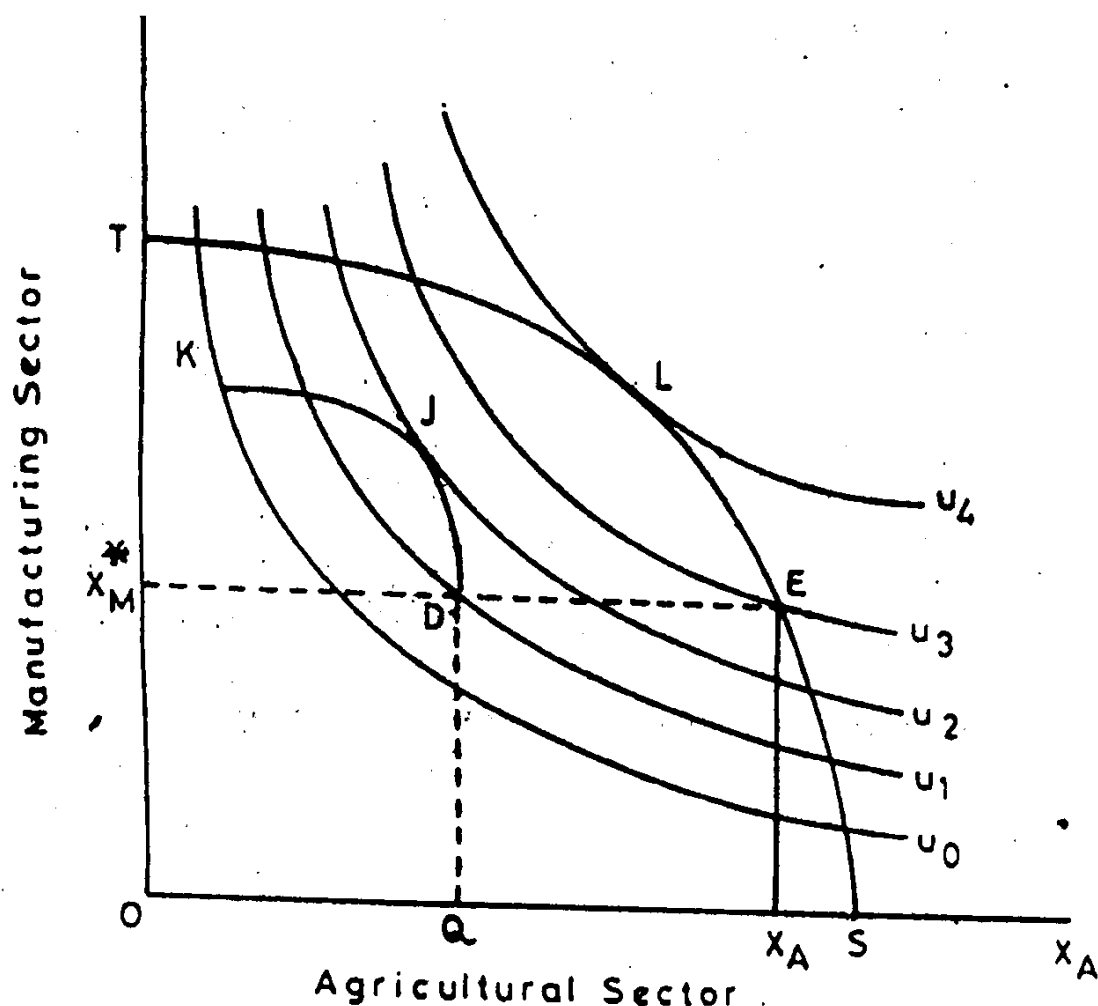
The equilibrium point shall be attained through a simultaneous raising of Pf and lowering of W: in response to the migration. As relative agricultural output declines, P shall rise causing output of the manufactured goods to depreciate as well, since producers shall produce to a point that $\mu' = \bar{W}_M P$ which rises in terms of manufactured goods. It should however be noted that a' can be raised only through restricting output (as $\mu'' < 0$). Therefore, in general, we find that imposition of a minimum wage gives rise to an equilibrium characterized by unemployed and loss of potential output of both goods. According to Harris and Todaro, "Although our initial assumption is a bit easier to handle, the principal conclusion remains unaffected if we make the minimum wage fixed in terms of the agricultural goods. Equilibrium is only achievable with unemployment. Actual minimum wage setting is usually done with reference to some general cost of living index and food is the largest single item in the budget of most urban workers. Hence, the second case may be somewhat more realistic."

5.2.3 Implications For Development Policy

Harris and Todaro observe, "The standard solution to the problem of an institutionally determined wage that is higher than the equilibrium level is to employ labour in a public sector according to a shadow wage at ϕ or to grant a payroll subsidy to private players, that equate private costs with this shadow wage." But there are two problems: how can the shadow wage be determined? and what are the implications of executing such a schedule when the institutional wage shall continue to be paid to the employed?

In a static economy the appropriate shadow wage refers to the opportunity cost of labour employed by the industrial sector. Thus in case labour is employed to the point such that marginal product equates shadow wage which in turn equates the marginal product in agriculture. The equity of marginal product in the two sectors is conceived as a necessary pre- condition for the optimum allocation of resources. And this assumes a positive marginal product in agriculture and sufficient factor mobility to ensure full employment of labour. The existence of urban unemployment, suggests that there may be a reservoir of labour. Thus despite the full employment of agricultural labour during busy seasons, the appropriate shadow wage for urban labour is likely to be lower than the marginal product in agriculture. This holds, in case, urban and rural labour force act as separate non-competing groups.

In the present analysis, the two sectors are closely related to one another through labour migration. In case, one additional job is created in industrial sector at the minimum wage, the expected wage shall tend to rise and rural urban migration shall be induced. Thus, the opportunity cost of an industrial workers shall exceed the marginal product of an agricultural worker. On the other hand an increase in agricultural income shall induce reverse migration without causing any depreciation in industrial sector. Harris and Todaro claim, "In our model, payment of minimum wage to additional industrial worker will induce more rural-urban migration. Therefore, implementation of a shadow-wage employment criterion will have an important effect on the level of agricultural output and on urban unemployment." The situation can be explained in the fig. given below.



Given the minimum wage, the initial equilibrium is at point D. At this equilibrium level, the aggregate production of manufactured goods is fixed at OX^*M along the Y axis.

If the individuals are not migrating due to expected wage differentials, economy's level of output shall remain fixed at E. But migration reduces agricultural output to OQ level. Therefore shadow pricing theory suggests that with an appropriate wage subsidy economy could move to point L on the production possibility frontier; with the social indifference map and refers to an optimum position. As a result, level of welfare shall increase from u_1 to a higher level of u_4 . This point remains unattainable in the model. With the implementation of a shadow wage production of manufactured goods tend to rise. But the creation of an additional job at the minimum wage shall induce some additional migration from the rural sector causing decline in agricultural output. Thus the movement from D can only be in north western direction alone. The line DK (K being the point of intersection between this line and u_0 curve) shows the locus of all such attainable points and is evident that there is anyone point K at which labour resources are fully employed in the economy. At this point expected wage shall equate the minimum wage since there is no urban unemployment, and marginal product in agriculture shall equate minimum wage. But with the subsidy, the marginal product of labour in manufacturing shall be lower than in agricultural, hence K lies inside the production possibility frontier. They claim that, "this situation will

certainly not meet the conditions for a general optimum which can be met only at L. Thus, implementing a shadow wage criterion to the point that urban unemployment is eliminated will not generally be a desired policy."

It is to be noticed that a certain level of wage subsidy shall tend to improvements. From the fig. it is clear that point J (tangency point between DK and U2) is relatively favourable and is preferred to D. The criterion for welfare maximisation is given below.

$$f = Pf'(dNu/dNm)$$

It implies that an additional job in industrial sector increases output by f but since increased employment shall rise the expected urban wage, migration will be induced in an amount $d' Nu/dN_m$. The right hand side factor in equation XIII states the amount of agricultural output sacrificed due to migration of labour force. Thus shadow wage shall equate to this opportunity cost of an urban job and the amount of subsidy shall be $W_M f'$. So long as $f > Pf' (d Nu/ d Nm)$, aggregate-welfare can be increased by expanding industrial employment through subsidy or public sector hiring. Thus migration is directly related to industrial employment, higher the social cost of industrialization, the smaller is the amount of subsidy.

No doubt, the shadow wages are beneficial in many respects but its continuous use has two adverse effects. According to many economists, the payment of a subsidized minimum wage to additional workers shall increase total consumption, reducing the level of resources available for investment. Should the value of forgone future consumption be positive, the opportunity cost of industrial labour will exceed that indicated vide equation VIII and shadow wage will be raised accordingly. Furthermore, wage subsidies or public enterprise losses must be financed and in case, revenue cannot be raised through costless lump sum taxes, the opportunity cost of raising taxes must be taken into consideration. Both these effects shall reduce the desirable amount of subsidized job creation in industrial sector.

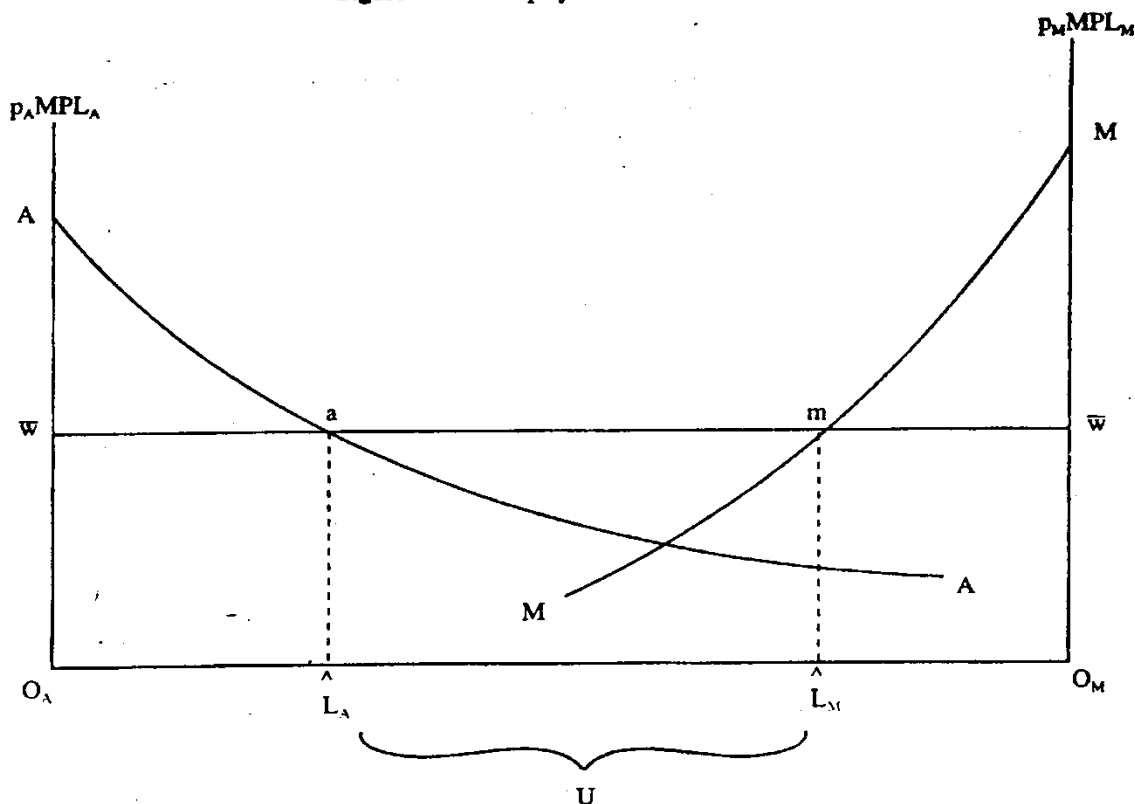
Thus the present model conceives different opportunity cost of labour in the two distinctive sectors. While creation of an additional job in the urban area reduces agricultural output through induced migration, additional employment can be generated in agricultural sector without causing a diminution in the level of output in industrial sector. Should this phenomenon be ignored, standard application of investment criteria is likely to be biased in favour of urban projects.

The Lewis versus the Harris-Todaro view of under employment in less developed countries:

These two enormously influential models make sharply different predictions regarding the effects of expansion of urban labour demand on underemployment and agricultural output. Both the views are expressed in a common diagrammatic framework so that the sources of these different predictions can be brought into clear focus. The following figure makes us understand Lewis' model of underemployment and its predictions in a better way .

THE LEWIS VERSUS THE HARRIS-TODARO VIEW OF UNDEREMPLOYMENT

Figure 1. Underemployment in the Lewis model



Labour endowment L of the economy is determined by the horizontal dimension of the figure. Total labour supply is treated as fixed so authors do not consider the possibility that e.g. people might work more or less hours in response to higher wages. Agricultural employment, L_A According to them, is measured to the right starting from O_A and industrial (manufacturing) employment L_M is measured to the left starting from O_M . The left vertical axis measures the marginal value product of labour in agriculture: the right vertical axis measures the marginal value product of labour in industry, which is assumed to be located in urban rather than rural areas. The prices of agricultural and manufacturing output, P_A & P_M , are assumed to be determined in international markets that the economy is too small to influence. This assumption, say authors, allows not to consider how the terms of trade between agriculture and industry might change as the relative outputs of the two sectors change. The marginal physical products of labour in agriculture and manufacturing, MPL_A and MPL_M , are determined by the respective technologies i.e. production functions and by the ratio of labour to land in agriculture and the ratio of labour to capital equipment in industry. Land and capital stocks are assumed to be fixed, so the ratios of labour to land and labour to capital only change when employment in agriculture and industry changes respectively. By diminishing returns, the marginal physical products of labour decrease as these ratios increase, hence the marginal value product of labour curve for agriculture AA slopes down to the right as L_A increases and the marginal value product of labour curve for industry MM slopes down to the left as L_M increases. Finally, $\bar{w}$ gives the subsistence wage mentioned by Lewis, in his model, which is assumed to be equal for both agricultural and industrial workers.

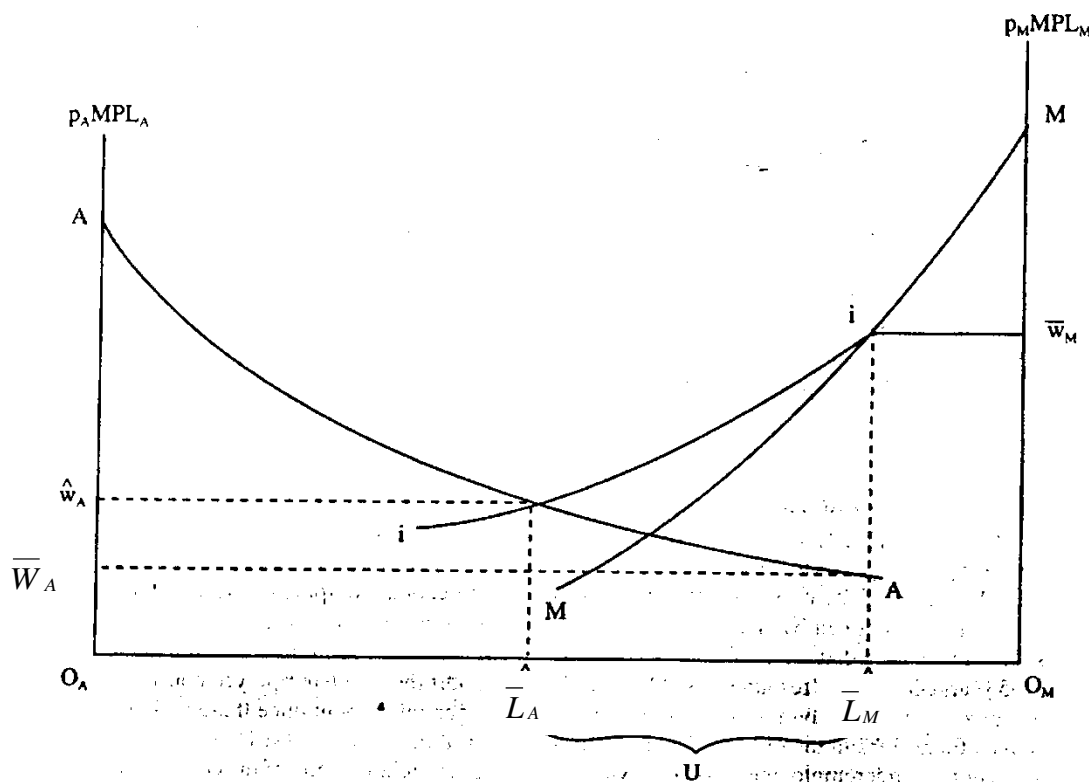
In the figure, farmers and manufacturing firms both find it worthwhile to hire labour until its marginal value product equals the subsistence wage, yielding employment $\bar{L}_A$ in agriculture and $\bar{L}_M$ in industry. This leaves a group of workers $U = \bar{L} - \bar{L}_A - \bar{L}_M$ who must find out a living in some way other than employment by farmers or manufacturing firms. This group is called underemployment.

Now the question arises, how do the underemployed survive? In this regard, Malthus says that they do not marry and reproduce. Over time, then, horizontal dimension, in the figure, $\bar{L}$ will shrink until the marginal value product of labour curves, in agriculture and industry intersect each other at rather below $\bar{W}$, the point at which the economy is in long run equilibrium but Lewis has different answer in this regard. According to him, the underemployed would survive through family sharing, where by "family" we mean "extended family", not only one's parents and siblings. Some family members may earn an income above the subsistence level through ownership of assets other than unskilled labour such as land or capital equipment, and by altruism or tradition they may be willing to share some of this "extra" income with less fortunate family members who are underemployed. In this sense the areas $\bar{A}\bar{W}$ and $\bar{M}\bar{W}$ are potential sources of income the underemployed can receive through family sharing which can take place in two ways (a) the underemployed can be retained as workers of the family farms or in an urban family business and be paid more than their marginal products (b) they can be self-employed in petty retail trading and receive supplemental income from family members either in cash or in kind.

According to Meier and Rausch, the model in figure above generates powerful predictions concerning the effects of expansion of the manufacturing sector. Suppose that capital equipment accumulates, causing the marginal value product of labour curve for industry to shift to the left, but not so far as to raise its intersection with the marginal value product of labour curve in agriculture above $\bar{W}$. In this case underemployment decreases: $\bar{L}_M$ increases while $\bar{L}_A$ remains constant, causing $U = \bar{L} - \bar{L}_A - \bar{L}_M$ to fall. Since $\bar{L}_A$ is constant, the only reduction in agricultural output is due to rural-urban migration of previously underemployed agricultural labour who were sustained by family sharing. Finally, the wages in both agriculture and industry remains constant, rather than increasing in response to the greater demand for labour. The last point was especially emphasized by Lewis, since it meant that earnings of owners of capital equipment ($\bar{M}\bar{W}_M$) would not be reduced by rising wages and he believed that these earnings were the main source of saving that would finance further investment and drive economic growth. Nurkse (1953) argued that the resources used by families to support their underemployed constituted a source of "hidden savings" that were available to finance investment once these underemployed found jobs in the expanded manufacturing sector. Ranis and Fei (1961) noted that the reduction in underemployment could be viewed as a "commercialization" of the economy because the fraction of workers whose income was determined by market forces rather than family sharing increased.

The following figure now is based on the model of Harris and Todaro (1970).

Figure 2. Underemployment in the Harris-Todaro model



In this fig 2, marginal value product of labour curves have been retained as in fig above. But the first major change in this figure is that the minimum wage now applies only to industry rather than to both industry and agriculture. It is therefore labelled as $\bar{w}_M$. Harris and Todaro view the minimum wage as determined not by the need for subsistence but rather by the institutional forces such as govt. regulations and union contracts which are effective in urban areas but not in rural areas. The notion of a subsistence wage is absent in their model entirely, so there is no floor underneath the agricultural wage. This raises the question why does the agricultural wage not fall to $\bar{w}_A$ at which agricultural employment is $\bar{L}_A = \bar{L} - \bar{L}_M$ and there is no underemployment? To answer this it is necessary to describe how the urban labour market function in the Harris Todaro model. Only then it will be possible to generate the second major change in fig. 2 i.e. the addition of the ii curve.

In the Harris Todaro model the urban labour market can be described as a market for casual labour, in which everyday employers hire a new amount of labour they need that day. (Typically observed in construction or dock work than in manufacturing). All workers picked on a given day receive the wage $\bar{w}_M$, and the remainder are unemployed that day and earn zero. Moreover, each day's drawing; being picked today does not make a worker more or less likely to be picked tomorrow. Every urban worker's odds of being picked on any day are thus equal to the ratio of total urban labour demand $\bar{L}_M$ to total urban labour supply L_U . It follows that every urban workers income averages out to $(\bar{L}_M / \bar{L}_U) \bar{w}_M$ in the long run. Returning to fig. 2 it is seen that if the agricultural wage is $\bar{w}_A$ then the

size of the urban labour force exactly equals $\bar{L}_M$ in which case every urban worker earns W_M on the average. This is obviously preferable to earning $\bar{W}_A$ so it will pay for agricultural workers to migrate to the city even though they will raise L_u above $\bar{L}_M$, and thus obtain sporadic rather than regular employment. Agricultural employment must therefore fall below $L_A = L - \bar{L}_M$, and the agricultural wage must rise above $\bar{W}_A$.

To determine the level of underemployment that makes workers indifferent between remaining in the countryside and earning $\bar{W}_A$ and migrating to the city and earning $(\bar{L}_M / L_u) W_M$ on average, we note that urban workers not picked on a given day are underemployed (actually unemployed), so we can write $L_u = \bar{L}_M + U$. The condition for indifference is then

$$W_A = \frac{\bar{L}_M}{\bar{L}_M + U} \bar{W}_M \quad \dots\dots (I)$$

This equation is depicted by the curve ii in fig 2. It shows the agricultural wage for which a worker is indifferent between agricultural employment and migration to the city. This wage declines with U , given the levels of $\bar{L}_M$ and $\bar{W}_M$, hence the curve ii slopes down to the left starting from $W_A = \bar{W}_M$ and $U=0$: as U increases, a worker is willing to stay in agriculture for lower and lower wages. At the intersection between the marginal value product of labour curve in agriculture and the ii curve, what agricultural employers are willing to accept. Now every worker in Harris-Todaro model is paid his marginal product in the agricultural sector. Lewis would argue that many of the agricultural workers who live with their families and work on the family farms are unemployed in the sense that their bed and boards exceeds their marginal products. If there are well functioning labour and land markets in rural areas, however, one could argue to the contrary that the families of any underemployed workers would insist that they get jobs on other farms or would rent land from other farms so that these workers could earn their keep. Thus the Harris-Todaro view that there is not underemployment in rural areas need not be inconsistent with the fact that there is a great deal of unpaid family labour in agriculture.

Now let us seek, what are the effects of increase in labour demand for the model of fig 2 as it was done for the model of fig 1. The graphical analysis becomes more complicated than in the previous case, because the increase in $\bar{L}_M$ resulting from the leftward shift of the marginal value product of labour curve for industry also causes the origin of the ii curve to shift left. Turning to equation I we can see that if we hold the agricultural wage W_A constant, an increase in urban employment $\bar{L}_M$ actually causes an increase rather than a decrease in urban underemployment U . The actual change in U depends on how fast the agricultural wage rises in response to the migration of agricultural workers induced by the increased income they can expect in the city. Could all if the increase in urban employment come from reduced urban underemployment, leaving the agricultural labour force unchanged? Clearly not, since then the ratio $\bar{L}_M / (\bar{L}_M + U)$ must increase, implying an increase in W_A by equation I which in turn requires a decrease in L_A . In sum, expansion of urban labour demand in the model of fig. 2. is much less beneficial than in the model of fig 1: it need not reduce underemployment, where it must do so in the model of fig 1, and it must reduce agricultural output (and raise the agricultural wage) whereas it need not do so in the model of fig 1.

In the end let us consider the effect of an increase in agricultural labour demand on the model of fig 2. which is caused for example by an increase in the quality of irrigated land. Since the ii curve now remains stationary (because $\bar{L}_M$ and $\bar{W}_M$ do not change), when the marginal value product of labour

curve for agriculture shifts right it must intersect the ii curve at a lower level of U. We have a paradoxical policy implication, emphasized by Todaro at the end of his preceding selection that the surest way to reduce underemployment in the city to improve employment opportunities in the countryside.

Self Assessment Question.

1. Outline the concept of rural urban migration

2. What do you mean by opportunity cost?

3. Explain the concept of shadow wage.

4. Describe the meaning of the wage subsidy.

5.4 SUMMARY

To sum up, it can be stated that the model given by Harris-Todaro explains fully the phenomenon of rural urban migration in developing countries. The gist of their model is that though there is urban unemployment in large extent, yet the migration takes place because there is difference between agricultural wage rate and the expected urban wage rate. And this migration will be continue to exist and will be acceleration till this difference in the wage rate will be there. They have shown that the shadow wages are beneficial. The model also conceives different opportunity cost of labour in the two distinctive sectors. While creation of an additional job in the urban area reduces agricultural output through induced migration, additional employment can be generated in agricultural sector output causing a diminution in the level of output in industrial sector.

5.5 GLOSSARY

- Migration– Movement of labour in response to urban-rural difference in expected earnings.
- Urban Sector – Sector which usually specialises in manufacturing goods.
- Rural Sector – Sector which usually specialises in agricultural activity.
- Opportunity cost – Find and Write
- Shadow wage – Find and Write

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5.7MODEL QUESTIONS:

- Q1. Explain the equilibrium condition in the Harris-Todaro model.
- Q2. Write a note on the unemployment equilibrium of the Harris-Todaro model.
- Q3. Critically examine Harris-Todaro model in detail.
- Q4. What do you mean by the term Institutional wage?
- Q5. How would you explain the implications of the model given by Harris-Todaro for the development policy?

BALANCED AND UNBALANCED GROWTH

Structure

- 6.0 Objectives
- 6.1 Introduction
- 6.2 Theory of Big Push
 - 6.2.1 Factors for the Development of Big Push Theory
 - 6.2.2 Indivisibilities and External Economies.
 - 6.2.3 Features of Big Push theory
 - 6.2.4 Critical Appraisal
- 6.3 Balanced Growth Theory
 - 6.3.1 Balance between Agriculture and Industry
 - 6.3.2 Balance between Domestic and Foreign trade
 - 6.3.3 Balanced Growth Approach based on vicious circle of poverty concept.
 - 6.3.4 Vertical balance between capital goods industries
 - 6.3.5 Balance between SOC and DPA
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- 6.4 Unbalanced Growth Theory
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 - 6.4.5 Pressure Creating and Pressure Relieving Investment
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- 6.5 Summary
- 6.6 Glossary
- 6.7 References

6.8 Further Readings

6.9 Model Questions

6.0 Objectives

After going through the lesson you will be able to

- explain the meaning of big push.
- understand the meaning of indivisibilities and its types.
- explain the meaning of balanced growth and its theory.
- describe the theory of unbalanced growth.

6.1 Introduction

In the previous lesson, we studied about the phenomenon of rural urban migration given by Harris and Todaro. This model explained how interaction between the agricultural sector and industrial sector can help in the development of the economy. In the present lesson, we will study the different strategies of economic development. The main question here is the origin of the strategies adopted by the different schools of thoughts.

At the end of the Second World War, economists turned the direction of their work from formulating methods to further enrich the Northern Hemisphere and Combat communism, to instead trying to achieve economic development in less developed regions such as Africa, Asia and Latin America. A school of thought emerged, veering away from common economic theory, instead focusing on practical ideas, from the historical perspective. This school emphasized on industrial growth as the engine of economic growth. The leading economists viz. Rosenstein Rodan, Ragnar Nuskse and Arthur Lewis, and A. Young advocated the balanced growth approach Whereas Hirschman and Paul Streeten put forward case for unbalanced growth strategies to accelerate the process of economic development.

Rosenstein Rodan put forth his ideas in his Theory of Big Push which is a part of the theory of balanced growth. It is an attempt to introduce a comprehensive and integrated programme of industrialisation, including within its framework not only the consumer's goods industries and social overhead investment but also capital goods industries. The only thing left out is the agricultural sector. The theory is discussed below :

6.2 THEORY OF BIG PUSH

Rodan stresses the view that because of inevitable *indivisibilities in demand, supply and saving*, a large comprehensive programme is needed in the form of a high minimum amount of investment to overcome the obstacles to development in under developed economy and to launch it on the growth path. According to this theory, *a development programme must be atleast of certain minimum size, a 'critical minimum', to reduce indivisibilities and discontinuities in the economy, overcome the diseconomies of scale and offset certain other forces that arise to depress development once development begins.*

Rosenstein Rodan states, "There is minimum level of resources that must be devoted to a development programme, if it is to have any chance of success launching a country into self sustaining growth is like getting an aeroplane off the ground. There is a critical ground-speed which must be passed before the craft can become airborne" Proceeding "bit by bit" will not add up to its effects to the sum total of the single bits. *A minimum quantum of investment is a necessary though not a sufficient condition for success.* This is in nutshell, the contention of the theory of big push.

The economic growth is considered to be a discontinuous affair rather than a gradual one, with any effort below some minimum being comparatively ineffective, if not absolutely useless. Thus, according to Rosenstein Rodan, in order to put economies of under-developed countries on a path of self sustained growth, planning for development must aim at taking the entire social system and of its low level of equilibrium and setting of a cumulative process upwards. Prof. Gunnar Myrdal while supporting the big push thesis observes that backwardness and poverty naturally make it difficult for a country to mobilize enough resources for a big plan, but they are precisely the reason why the plan has to be big in order to start development and that market forces by themselves cannot do it.

6.2.1 Factors for the Development of Big Push Theory

Rosenstein Rodan was warranted by certain situations that facilitated in the development of his theory. Very many factors led to its development. Some of these are discussed as under :

1. Big Push is essential to generate external economics and ensures a balance development. Rosenstein Rodan opines that in under-developed economies large social and economic expenditure become imperative, in case, private investors can be induced for reinvestment in various industries. Such investments are beyond the power and capacity of private investors. It is an example of pigouan arvergence, between private and social marginal net product." Later exceeds the former. He favoured that these should be simultaneously invested in such industries and power plants, and communications.

He argued that the fundamental problem confronting the underdeveloped countries is stagnancy. Big push is essential to bring the economy out of this state of stagnancy. External economies help the economy to come out of this and facilitate a steady rate of growth. Besides external economies help other industries to acquire profits. Consequently, local and foreign investors shall get progressive incentives for investment at a rising rate. Rosenstein Rodan favoured simultaneous establishment of such industries as are technically interdependent of each other. Vicious circles of stagnancy therefore breaks.

2. Big Push facilitates in market extension : Consequently per capita income level and purchasing power of consumers increase in underdeveloped economies. Increased, purchasing power extends the area of operation of a market. He argues that a single, factory, inspite, of efficient methods of production may fail to generate economies because of the limited market-Extent of the market plays an important role in the growth process of underdeveloped economies. Simultaneous setting up of a large number of factories, producing different consumer goods is required to create mate employment opportunities and purchasing powers. This extends the scope of market.

Market must expand and Balanced output must be produced. This will reduce the risk of unsold stock of goods and commodities. Since risk is an element of cost, its reduction shall engender a special external economy. The theory emphasises the income effect of his programme. Extension of market shall set a new pattern of expansion in consumer's expenditure and facilitate each plant to operate its full capacity producing at the minimum cost of production. Rising investment in the complementary industries shall required huge investment characterized by indivisibilities.

Thus, a big push is necessary to overcome indivisibilities and discontinuities - found in an economy and for attaining external economies of scale. Unless these indivisibilities are overcome, economic development cannot become self-sustained.

6.2.2 Indivisibilities and External Economies

Rosenstein Rodan stresses three kinds of indivisibilities and external economies, viz. (i) indivisibility of demand (complementarity of demand), (ii) indivisibilities in the production function (lumpiness of capital) and (ii) indivisibility of supply of savings. Thus provided that the total value of

employment and purchasing power is increased by a minimum indivisible step, each factory will have enough market to reach full capacity production and the point of minimum cost per unit". Because of these indivisibilities, proceeding bit by bit will not lead to self-sustained, 'economic growth' in underdeveloped countries. The role of these different types of indivisibilities in bringing about economic development can be analysed in greater detail.

- **Indivisibility of Demand** : The indivisibility of demand has been put forward as an argument in favour of big push in underdeveloped countries. The indivisibility of demand requires a simultaneous setting up of the inter dependent industries. *Individual investment decisions have a high element of risk because of uncertainty in finding the markets for their products.* The risk considerably reduced in case of simultaneous development of inter-dependent industries. In other words, investment decisions are inter-dependent of indivisible. Unless there is an assurance the complementary investment will be forthcoming, individual investment decisions will be highly risk and they may not be undertaken. Hence, a fare-scale investment programme is necessary to ensure complementary investment and to create a possibility of investment decision.

Rosenstein Rodan cites the famous example of a shoe factory to support this argument. Suppose a hundred disguisedly unemployed workers are employed in a shoe factory whose wages constitute an additional income. If these workers spend this additional income on shoes, the market will have a regular demand for shoes and will thus succeed. But human wants being diverse, the whole of the additional income will not be spend on shoes and the shoes industry will suffer because of inadequate demand. On the other hand if ten thousand unemployed workers are engaged in hundred consumer good factories, the new producers would become each other's customer and create market for their goods. Thus the complementarity of demand reduces the risk of finding a market and increases the incentives to invest.

- **Indivisibilities in the Production Function** : The production function in under-developed countries may have several indivisibilities but indivisibility of social overhead capitals is the most crucial. Because of its indivisibility, social overhead capital investment can be a great source of *external economies*⁸ and *increasing-returns*. The installation of social overhead capital like power, transport communication, housing, etc. requires huge initial investment but its most important advantage is the creation of investment opportunities in other industries.

According to Rosenstein Rodan, the social overhead capital is characterized by the following four indivisibilities.

- (a) investment in social and economic overhead capital is irreversible in time, and hence, it must precede other type of investment, i.e. directly productive investment this is known as *indivisibility of time*.
- (b) It has minimum durability, so that it is technically feasible and is not poor in efficiency - *Indivisibility of durability*, thus making it lumpy.
- (c) *It has a long gestation period, indivisibility of long gestation period.*

⁸ The external economics are the pecuniary economies transmitted through the price system, They originate in a given industry. A (say due to internal economies overcoming technical indivisibilities) and are then, passed on in the form of lower price for A's product to another industry B which uses t as an input of a factor of production New investment in A which overcomes its technical indivisibilities will cheapen its product, The profits of industry B created by the lower price of factor A, call for investment and expansion in industry B, one result of which will be an increases in industry B's demand for industry A's product, This in its turn will give rise to profits and call for further investment and expansion of industry A.

(d) It is of irreducible minimum industry mix of public utilities that have to be created *simultaneously indivisibility of an irreducible industry mix of public utilities*. The indivisibility of social overhead capital is the great obstacle in the development of underdeveloped countries. A high initial investment in infrastructure or big push is a precondition for creating proper climate for productive investment is economy.

- **Indivisibility in the Supply of Saving** : The third indivisibility often put forward as an argument for big push is the *income elasticity of saving*. In underdeveloped countries, there is a discontinuous relationship between national income and domestic savings. Below a certain national income there may be practically no domestic savings. It is only after a certain level of income has been achieved that there can be significant increase in savings. Thus a high level of income is a precondition for high level of saving and investment. For this, it is necessary that when income increases as a result of investment, *marginal rate of saving must be kept higher than the average rate of saving*.

Professor Rosenstein Rodan states, 'A high minimum quantum of investment requires a high value of savings, which is difficult to achieve in underdeveloped countries which have low income level. The way out of this vicious circle is to first an increase in income due to an increase in investment which mobilizes additional latent resources and then to provide mechanisms which ensure that a second stage, the marginal rate of savings will be very much higher than the average rate of savings.

Given these indivisibilities and the external economies which they create, only a big push can release the under-developed economies from the inertia of underdevelopment. Rosenstein Rodan also speaks of "Psychological indivisibilities", and thus talks of the phenomenon of indivisibility in the vigour and drive required for a successful development policy. Isolated and small efforts may not have sufficient impact on growth. Hence, the economy needs a very large of investment, a big jerk or a big push.

6.2.3 Features of Big Push Theory

(1) He emphasised the role of government for this price mechanism shall not provide perfect and permanent solution, instead a meticulous planning is required.

(2) This will require a high rate of saving which is difficult to achieve in low-income underdeveloped countries. Thus marginal rate of savings should exceed the average rate of savings. Foreign loans and grants shall play a significant role.

(3) Foreign trade cannot undermine the big push, instead of it, may reduce the number of fields requiring the big push.

(4) A big push could of course result from one or a few big projects, or from a large number of projects of varying size dovetailing with one another. It will require a certain time unit, usually a planning period consisting of few plans. Thus the big push has two aspects; the size of the initial effort and the speed which it should require.

(5) To him, it is less painful alternative to the communistic model of industrialisation in setting up of high-capital goods industries at the cost of consumer goods industries,

(6) He argues, the idea sides not imply that after big push, development shall occur automatically without any further planning. Instead, he says, once big-push is provided in the beginning, more than proportionate returns shall be obtained in the latter period.

6.2.4 Critical Appraisal

In certain respects, Prof. Rosenstein Rodan's theory of big push can be considered as superior to the traditional static equilibrium theory. *The theory is more realistic in its assumption about the indivisibilities for the production function. It analyses the true nature of the development, process by*

maintaining the development process is a series of discontinuous jumps. Thus, it examines the path towards equilibrium and not merely the condition at a point of equilibrium. But despite all these merits, the big push theory is not without its limitations. The theory has been criticised on the following grounds.

1. Overlooks the Role of Foreign Trade : The possibility of realizing extensive external economies has been the main basis of justification for big push in investment programme within the country, but this external economies argument is not very strong. Prof. Jacob Vinner points out that a big push in domestic development programme for generating external economies is not very necessary because underdevelopment economies realise greater economies from foreign trade independently of domestic investment.

2. Neglects Agricultural Sector : Another important shortcoming of the big push theory is that it emphasises the importance of massive investment in all types of industries. Capital goods and consumer goods industries, economies and social overhead capital but it does not recognise the importance of stepping up investment in agriculture and other primary industries. In agriculture oriented underdeveloped countries a massive investment in transport facilities, land reforms irrigation system, improving agriculture practices through better tools, fertilisers implements etc. is as important as investment in other industries. The neglect of agriculture sector hinders the process of rapid economic development.

3. Technical Indivisibilities Argument Irrelevant : Technical-indivisibilities in social overhead capital is a major argument in favour of big push theory but this argument may not be of much relevance for most of the underdeveloped countries. *The problem of most of the underdeveloped countries is not to have a completely new outfit of social overhead facilities, starting from a scratch but how much to extend and improve the already existing facilities.* Thus a big push in investment in the field of social overhead capital may not be very relevant for underdeveloped countries. Besides, Investment in social overhead capital has a high capital output ratio and a long gestation period which leads to inflationary pressures in the initial stages prolonging the building up of overhead capital and thus making it more difficult for underdeveloped economies to attain rapid economic development.

4. Shortage of Capital : Big push theory is not very realistic because giving a big jerk or a big push to investment programme may not be possible in underdeveloped countries because of the shortage of capital resources in such economies.

5. Historically Wrong : Some economists have pointed out that a relatively low level of investment would pay off well in the form of additional output. According to Prof. John Adler, this conclusion is quite relevant in the case of India and Pakistan and many other countries of Asia and Latin America where capital-output ratio is low. Big push theory is also not supported by the history of development of advanced countries. The economic development of most of the advanced countries scarcely seems to be the result of a crash programme. Historically, the presence or absence of a big push has not been a distinguishing feature of growth anywhere. Thus there is little conclusive proof that a big push in investment is a necessary pre-requisite for development.

Thus we have seen that Big Push doctrine which is a more comprehensive version of balanced growth theory advocates a large scale development effort and is thus liable to be guilty of encouraging the underdeveloped countries to go beyond what their resources permit.

6.3 BALANCED GROWTH THEORY

Proponents

Friedrich List, can be regarded as the earliest proponent of balanced growth approach. He stressed on the significance of the type of development which maintains balance between agriculture, manufacturing industry and commerce and between different branches of manufacturing sector. In

1928, Allyn Young introduced the idea of the interdependence of different industries-and observed that the rate at which one industry grows is conditioned by the rate at which other industries grow. Rosenstein Rodan further elaborated the idea of balanced growth in 1943. More recently Prof. Nurkse has restated and elaborated the doctrine of balanced growth.

Nurkse, like **Rosenstein-Rodan** emphasized above all the **need for a co-ordinated increase in the amount of capital utilized in a wide** range of industries if the critical threshold of industrialization was to have a chance of being achieved (Nurkse : Process of Economic Development, 1962). Both these economists shared similar ideas arguing for simultaneous investment across the economy to encourage growth through output being consumed in domestic markets. Balanced growth can be experienced when a country implements policies to induce growth in industries so that they grow at the same pace to create markets for the goods and services produced. Rodan introduced the theory of 'Big Push'. He argued that big push was necessary in countries that did not have the framework for spontaneous economic growth. From his research in Eastern and South Eastern Europe, he observed that "a big push or critical minimum effort was believed to be necessary to break out of a low level equilibrium trap. "(Meire: Leading Issues in Economic Development, 1995). He saw this as the best and most efficient way to encourage industrialization. He stated that through the big push of concurrent industrial investments, the phenomena of virtuous circles would arise and diffuse into the economy. Nurkse stressed the importance of virtuous circles in growth and development. Virtuous circles arise when large scale investments in one sector i.e. petroleum, impacted positively on other industries. Investment on petroleum such as research would lead to more efficient and cheaper fuel which benefits haulage firms. These firms would become then efficient and provide cheaper better fuel at a lower price through lower costs. Price reductions would be passed onto consumers who would have more disposable income which can be spent on locally produced goods. This would provide a vast network across the country which would induce cheaper prices, increased efficiency, increase output, increase income and lead to increased aggregated growth. He stressed on the view that a country needed to build up a momentum for growth to occur and a bit-by-bit approach would not achieve meaningful growth.

Rosenstein – Rodan also tackled the issue of an excess agrarian population known to be disguisedly unemployed or underemployed. Evidence for this stems from the past 150 years in which total world population had doubled, but 66% of it occurred in third world. Nurkse argued that in these countries, agriculture was culturally integral to these regions because mainly they are agriculture based economies. This increase in population leads to scarcity of land. The excess labour manifested itself through under employment of peasant cultivators due to small land holdings. Rodan stressed that this was a problem as these people received little or no income and higher the population, lesser the output produced. So this labour should have been used for industrialization, specially labour intensive methods of industrialization focussed on consumption industries, while importing heavy industry products. In this way labour could earn an income which would be used to buy local goods from industrialization. This concept was also shared by Lewis in his Two Sector model of development- Giving importance to all the sectors he says, "In development programmes, all the sectors of the economy should grow simultaneously so as to keep a proper balance between industry and agriculture and between production for home consumption and production for exports – the truth is that all the sectors should be expanded simultaneously". He put forth his ideas in his famous article, "Economic Development with unlimited supply of Labour" where he endorses Rodan's views that unemployed or underemployed labour from the agriculture can be transferred from there and can be used in industry so that both agriculture and industry develop simultaneously (The model has already been explained in Lesson 1 in detail).

The following paragraph sums up this doctrine to give you a purview of it.

The balanced growth theory emphasizes the different elements of the vicious circle, particularly the low purchasing power and smallness of the market and the indivisibilities and interdependence of capital investment required for economic development. Thus, in order to overcome the limitations of the market created by low per capita incomes and to enjoy the internal economies of scale and external economies of complementary investment, it is necessary, to start with a large-scale development programme, simultaneously trying to push forward over a wide range of economic activities.

We will see in this lesson that the balanced growth theory tries to fulfil simultaneously the following three sets of balanced growth relations :

- (i) The horizontal balance between, different consumer's goods industries determined by the pattern of expansion in consumer's demand.
- (ii) The balance between *social over head investment and the directly productive activities* both in the consumer's and the capital goods sectors and
- (iii) The vertical balance between the capital goods industries, including the intermediate goods and the consumers goods industries, determined by the technical complementaries.

According to the strategy of balanced growth, there should be simultaneous and harmonious development, of the different sectors of an economy so that all sectors grow in unison. A deliberate, simultaneous investment in all lines of production, according to some central government plan, would lead to balanced growth of the economy. Rosentein Rodan is of the opinion that when a group of industries are planned together the rate of growth of the economy would be greater than it would be otherwise.

He gave his ideas in his article titled "Problems of Industrialisation of Eastern and South Eastern Europe." He emphasised that large scale investment is imperative for the underdeveloped economies to be self sufficient Market. Thus according to this approach balanced growth means that in order to take advantage. He says that indivisibilities of supply side are concerned with social overhead capital. To enjoy the benefits of various external economies it is necessary to invest simultaneously in many activities. Indivisibilities of demand side means restricting the desirability and profitability of economic activities due to the narrow extent of the external economies of the indivisibilities of supply and demand side, large scale investment be made in several activities. In words of Rodan, "Balanced growth means investment in mutually supporting industries, which would create the market for each others products". As a result, different industries will demand the products of one another and thereby help in widening the extent of the market. It will make industrialization of the country possible. To achieve this objective, investment should be made with big push.

Now balanced growth of different sectors of the economy does not mean equal percentage growth in output or equal amount of resources allocated to different sector; but it means that different sectors of the economy should grow in a harmonious manner so that there occurs neither a surplus nor a shortage in any sector.

6.3.1 Balance between Agriculture and Industry

There should be a proper balance between investment in agriculture and industry. Industry should not get too far ahead of agriculture since both are complementary. An increase in industrial output require an expansion of agricultural output also, because with the development of industry, the demand for food and raw material will increase. In order to-meet the increased demand for food and

raw materials, it becomes imperative that the agricultural sector should also develop along with the industrial sector. Otherwise, inflation will set in.

To quote Lewis on the question of complementarity between agriculture and industry, "Measures to increase the productivity of the industrial sector require an increase in the demand for manufactured products. The demand comes only to small extent from industrial producers themselves who are only a small proportion of the population of such countries. It comes to a great extent from all other classes, of whom the farmers are by far the largest in number. If capital is being put into developing the manufacturing industry, while a country's agriculture remain stagnant, it is bound to result in a heavy pressure by workers employed in factory and cottage industries on limit stocks of essential consumer commodities. But if there is a balanced development with the productivity of farmers growing rapidly and also the demand for manufactures correspondingly increasing, there is ample scope for investment in agriculture and industry. Moreover, in over-populated countries industrialisation also depends on the development of international trade in manufactures. The secret of most development problems is to maintain a proper balance between sectors.

6.3.2 Balance between Domestic and Foreign Trade

According to Meier and Baldwin, "Balance is also required between the domestic sector and the foreign sector. Export revenue is an important source of financing economic development, imports rise as production and employment expand; and domestic trade itself requires increasing imports of necessary material and equipment. To pay for these rising imports, and to allow export to finance development as much as possible, the country cannot expand its domestic trade at the expense of its foreign trade. The domestic sector must grow in balance with the foreign sector".

To sum up in the words of Prof. Lewis, "in development programmes all sectors or the economy should grow simultaneously so as to keep a proper balance between industry and agriculture and between production for exports the logic of this proposition is as unassailable as its simplicity".

6.3.3 Advocacy of Balanced Growth Approach Based on Vicious Circles of Poverty Concept

(Horizontal balance between different, consumer's goods industries-internal economies argument). According to Nurkse, vicious circles of poverty are at work in underdeveloped countries which retard economic development. If they are broken, economic development would follow. The vicious circles operate both on supply side and demand side.

On the supply side, the capacity to save is low because of the low level of real income. The low real income is due to low productivity, which in turn, is due to deficiency of capital. The deficiency of capital is the result of low capacity to save, thus completing the vicious circle.

On the demand side, inducement to invest is low because of low demand which is due to the low level of real income of the people. The inducement to invest is, therefore, limited by the size of the market which, in turn, depends upon productivity, because the capacity to buy is in fact the capacity to produce and productivity depends upon the amount of capacity used in production. But for an individual entrepreneur the use of capital is inhibited by the small size of market which, in turn, is limited by low productivity. Thus the vicious circle is complete.

The question is how to break this circle ? Individual investment decisions cannot solve the problem. The output of any single newly set-up industry with capital equipment cannot create its own demand. Human demands being of diverse nature, people employed in the new industry will not spend all their income on their own product. As a result, there would not be adequate demand for the product

of the new industry. The supply of products likely to exceed the demand for it and thus the industry is likely to become sick.

Suppose a large shoe factory is started in a region where 20,000 unemployed workers are employed. If these workers spend all their wages on shoes a market for the shoes would be created. But the workers will not spend all their wages on shoes because they have to purchase other consumer goods also. If, instead, a whole series of industries are started which produce the consumption goods on which workers would spend their incomes, all the industries would expand via the multiplier process. The planned creation of such complementary system of industries would reduce the risk of not being able to sell their products would, therefore, lead to large-scale planned industrialisation.

What is the way out of this impasse? As stated above, the size of the market can be enlarged by monetary expansion, salesman ship, advertisement abolishing trade restrictions and expanding the economic infrastructure. It can also be enlarged by a reduction in prices or by an increase in money incomes while keeping prices constant. This implies increase in productive efficiency and in real income. But, in an underdeveloped country, market is not large enough to permit production on a scale that may lead to reduction in costs Moreover, inelastic consumer demand, technical discontinuities and lack of enterprise keep down the demand for capital.

In the words of Prof. Nurkse. "The difficulty caused by the small size of the market relates to individual investment incentive in any single line of production taken by itself. At least, in principle the difficulty vanishes in the case of more or less synchronized application of capital to a wide range of different industries. People working with more and better tools in a number of complementary industries' become each other's customers.' Most industries catering for mass consumption are complementary in the sense that they provide a market for and thus support each other: This basic complementary stems, in the last analysis, from the diversity of human wants. This case for balanced growth rests on the need for a balanced diet."

Nurkse takes the cue for the notion of balanced growth from Say's law and cites Mills formulation of it. Every increase of production, if distributed, without miscalculation, among all "kinds of produce, in the proportion which private interest would dictate, creates, rather constitutes, its own demand."

But a substantial use of capital by an individual entrepreneur in any particular industry may be unprofitable due to the small size of the market. On the contrary a synchronised use of capital to a wide range of projects in different industries may raise the general level of economic efficiency and enlarge the size of the market. Investment, in a wide range of industries leads to vertical and horizontal integration of industries, a better division of labour, a common source of raw material and technical skill, an expansion of the size of the market, and better utilization of social and economic overhead capital.

6.3.4 Vertical Balance between Capital Goods Industries (External Economies Argument)

It is argued that in order to launch economic development successfully. It is necessary not only to enlarge the size of the market and obtain the internal economies of large scale production, but also to obtain, the external economies which arise from simultaneously setting up of industries which are technically interdependent on each other. While these technical complementarities do not normally exist between a horizontal group of consumer's goods industries at the same stage of production, they are very important between a vertical group of industries at different stage of production; and that since these external economies are particularly important in that capital goods industries which supply each other and the consumers goods industries with various inputs in the form of machinery and semi-

processed intermediate goods, the capital goods sector should form an integral part of the balanced growth programme.

6.3.5 Balance between SOC and DPA (Technical Indivisibilities Argument)

Investment in productive equipment and in human capital should be simultaneous, for investment in the former would be useless unless people are educated and healthy to operate it. Nurkse pleads that social and economic overhead facilities should be created ahead of demand to stimulate and support the various sectors of the economy.

Investment in social overhead service is notoriously lumpy in the sense that a power station or transport system has to be fairly large to be able to provide its services at economically feasible costs. Thus, technical individualities in social overhead capital emphasize the need to have a balance between the public utilities providing transport communications, and power on the one hand and the factories producing consumer's goods on the other, avoiding bottlenecks and excess in the Public-utilities.

Private enterprise in an under-developed country is incapable of taking advantage of these external economies because of its incapacity to invest in a wide range of projects. Balanced growth, therefore, calls for control, planning, direction and co-ordination for economic development.

When the plan strategy advocated all the three balances simultaneously, it tantamounts to the adoption of a big-push strategy.

6.3.6 Criticism of the Balanced Growth Theory

The doctrine of balanced growth has been severely criticised by Hirschman, Singer, Kurihara, Fleming and many other economists on the following grounds :

(i) **Shortage of Resources** : Prof. Hirschman has criticised the doctrine of balanced growth on the ground that it "combines its defeatist attitude towards the capabilities of under-developed countries with completely unrealistic expectations about their creative abilities". On the one hand, there is a shortage of skill and other resources for development in under-developed countries on the other hand, the doctrine of balanced growth assumes that skilled workers and entrepreneurs become available overnight and are in a position to start a chain of new industries. This appears to be a contradiction in itself.

It is strange that what cannot be done piecemeal, can be done in a big way and is, considered to be within the competence of under-developed countries. According to Singer, "The advantage of multiple development may make interesting reading for economists but they are gloomy news, indeed, for underdeveloped countries. The initial resources for simultaneous development on many fronts are generally lacking. Had the country possessed enough skill and resources it would not have remained under developed in the first place.

(ii) **Disproportionately in the Factors of Production** : Disproportionality in factors of production is another big problem in adopting balanced growth in under-developed countries. Some countries have abundant supply of labour but capital and entrepreneurial skill are scarce. In other labour and capital are scarce but other resources are available in plenty. The disproportionality in the availability of factors of production is a big obstacle to the practical application of balanced growth.

(iii) **Fails as a Theory of Economic Development** : According to Hirschman, the doctrine of balanced growth fails as a theory of economic development, Development, implies the process of change of one type of economy into another more advanced type. But the theory of balanced growth

involves the super imposition of an entirely self contained modern industrial sector on the traditional sector. According to Hirschman, "This is not growth, it is not even grafting of something new into something old. It is perfectly dualistic pattern of development."

According to Prof. Kurihara, "Balanced growth is not, as Prof. Nurkse supposes, to be desired to induce private investment but to be desired for its own sake, as an underdeveloped country is concerned. Nurkse's complaints about an under developed economy's restricted and low real income tending to inhibit the private inducement to invest would be unnecessary, if autonomous public investment of a capacity increasing as well as income generating nature was allowed to play a great role.

(iv) Competitive Relationship Among Industries : Prof. Kindleberger has criticised the theory of balanced growth on the ground that instead of starting new industries Nurkse's model does not consider the possibility of cost reduction in existing industries.

Even if this is accepted that it is within the competence of under-developed countries to establish new industries, a number of other problems are likely to come up. With the setting up of a new industries the demand for the products of existing firms will go down which will make them unprofitable. At the same time, the demand for factors of production will increase leading to a rise in price of factors of production. As J.M. Fleming puts it, "Whereas the balanced growth doctrine assumes that the relationship between industries is for the most part, complementary, the limitation of factor supply "ensures that the relationship is, for the most part, competitive."

(v) Role of State Over Emphasized : Another criticism levelled against the theory is that it assigns dominant role to the state in carrying on the development process. The theory of balanced growth entails centralized planning and direction but a number of objections may be raised against the role of the government. "A task that entrepreneurs, in a private enterprise system, are unable to handle, cannot necessarily be performed successfully by public authorities.

Moreover, centralised planning anti investment are growth-promoting only if pecuniary external economies can be "internalized"., But in reality economic development means general transformation rather than creating everything new. Therefore, it leads to pecuniary external diseconomies and involves certain social cost which can not be ignored. For example, old skills and trade become obsolete; slums, congestion, unemployment etc. rise. Balanced growth is, thus, possible if all the pecuniary diseconomies and social cost can be avoided which is not possible.

(vi) Historically Wrong Theory : Paul Streeten points out that, historically, it was not balanced growth but sacristies and bottlenecks which provided the stimuli to the inventions that revolutionized England's and world's economic system, and the invention, in turn, created new sacristies and bottlenecks. Had the world depended upon balanced development it would have reduced or even eliminated the incentives for discoveries, or, at any rate, for their application. Thus, historically, the most advanced nations of the world reached or achieved their growth by adopting a strategy of unbalanced growth rather than balanced growth.

We may conclude, in Prof. Singer's words "Perhaps guerilla. tactics are more suitable for the circumstances of under-developed countries than, frontal attack".

6.4 UNBALANCED GROWTH THEORY

6.4.1 Concentration on Strategic Sectors

Many economists have sharply criticised -balanced growth and suggested unbalanced growth as an instrument of accelerating economic development. The concept of unbalanced growth has been popularized as an alternative strategy by Prof. A.O. Hirschman and Hans Singer unbalanced growth implies that rather than developing all the sectors of the economy simultaneously, there should be concentration of investment in strategically selected Industries. According to Prof. Hirschman...., A deliberate unbalancing of the economy in accordance with a strategy is the best way to achieve economic growth."

The fact that two industries A and B are complementary does not necessarily mean that they should be expanded simultaneously to reach the maximum-possible expansion may be achieved either by expanding A to the full the full extent and, inducing B to expand correspondingly by lowering the price of the input A or by expanding B to the full extent, inducing A to expand correspondingly under the pressure of excess demand for its product by B. in the advanced capitalist countries, this may take place through private initiative only, resulting in what" is known as 'Vertical integration'. Even in the under-developed countries, the state may need to expand through its own initiative either A or B only, rather than both as suggested by the balanced growth theory.

In an under-developed country, in the initial stages of development, investment in strategically selected industries/sectors of the economy will lead to new investment opportunities and pave the way to further economic development. Hirschman does not deny the need for a, big push but he contends that because of the limited ability to invest, the under developed countries should concentrate on strategically selected industries/ sectors of the economy.

6.4.2 Tensions, Disproportions and Disequilibria

Prof. Hirschman is of the view that development comes about through a 'chain of disequilibria' and we must keep those disequilibria alive rather than eliminate them. If the economy is to be kept

proceeding flowered, the task of development policy is to maintain tensions, disproportion and disequilibria. Thus, imbalances are the very spirit and stimuli of development.

In the words of Prof. Hirschman in general, development policy must keep alive rather than eliminate the disequilibria of which profits and losses are symptoms in a competitive economy. If the economy is to be kept moving ahead, the task of development policy is to maintain tensions, disproportions and disequilibria". To quote Hirschman again, "An ideal-situation is obtained if one disequilibrium calls forth development move which in turn lead to similar disequilibria and so on ad infinitum. If such a chain of unbalanced growth sequences could be set up, the economic policy makers could just watch the proceedings from the sidelines".

Prof. Singer also supports this strategy of unbalanced growth and observes: It will be better for development strategy to concentrate available resources on types of investment which help to make the economic system more capable of expansions under stimuli of expanding markets and expanding demands.

6.4.3 Maximisation of External Economies

According to Hirschman, when new project are started they appropriate external economies created by previous projects and create new external economies that can be exploited by subsequent ones. There are some projects that appropriate more external economies than they create. There are other projects that create more external economies than they appropriate. The former are known as '*convergent series of investment*' and the latter are called "*divergent series of investment*". From the point of view of the economy the latter may have a greater social desirability than private profitability.

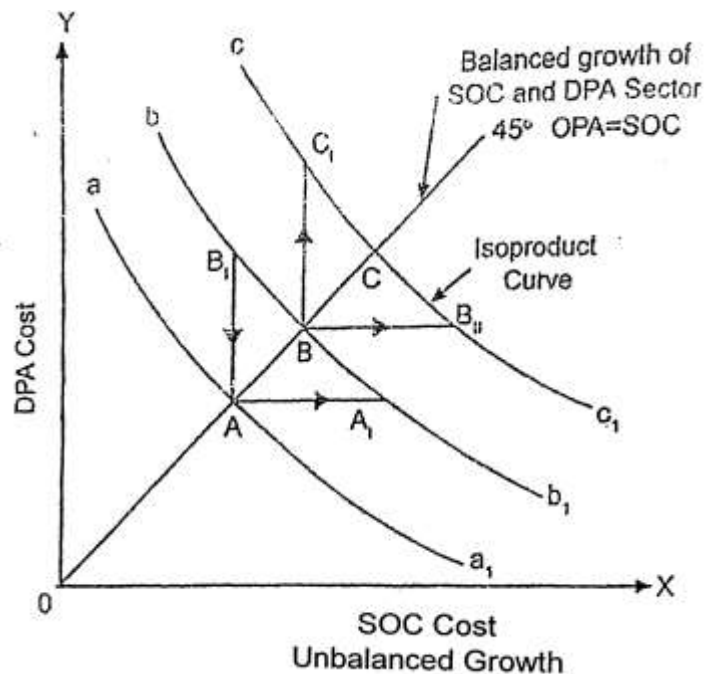
In Practice, the development policy should aim at the prevention of convergent series of investment and promotion of divergent series of investment as the latter create more external economies than they appropriate. The extra external economies created by such projects can be exploited by the subsequent ones. Thus the best strategy economic development for underdeveloped economies is the deliberately planned unbalanced growth. According to Hirschman, development has proceeded with growth communicated from the leading sectors of the economy to the followers, from one industry to another, from one firm to another. The strategy of unbalanced growth provides a suitable means for these countries to get out of the equilibrium of under development.

Investment in the economy can broadly be classified into two categories : (a) investment in social overhead capital (SOC); (b) investment in directly productive activities (DPA). In an under-developed economy, both these sectors, cannot be expanded simultaneously because of its limited ability to utilise resources. Balanced growth of SOC and DPA is not only unattainable in under developed countries but it is also not desirable. Thus, an imbalance has to be created in the economy. The economy can be *unbalanced either by concentrating investment on social overhead capital or on directly productive activities. The main problem of planning is to determine the sequence of expansion that will maximise the rate of development. According to Hirschman; unbalancing the economy with soc can give better results than unbalancing it by DPA.*

(i) **Unbalancing the Economy with SOC** : If in the initial stage- of development investment IS concentrated on creation of social overhead capital, it will create basic services that are necessary for the proper functioning of primary, secondary and tertiary activities. In social overhead capital (SOC) are included investment on education, public health, communication, transport and conventional public utilities like water, power, irrigation, and drainage schemes etc. The creation of all these services will encourage private investment in directly productive activities. For example, cheaper supply of electric power may encourage the establishment of small scale industries. It may provide better inputs to agriculture and industry at cheap rates. Thus, investment in *OPA* will also expand as a

consequence of investment in SOC and the economy can be put on the path of rapid economic development. Hirschman calls this process "development via excess capacity of SOC".

(ii) **Unbalancing the Economy with DPA :** An imbalance can also be created by concentrating on DPA sector. The government instead of investing in SOC may directly invest in DPA. The process of development has been called -; development via shortage of SOC. If investment in directly productive activities is undertaken first a shortage of soc service will raise production cost subsequently. But, ill due course of time investment in SOC might also be undertaken due to political pressure. Thus, the path of development through shortage of SOC is not smooth and may not enable a country to grow fast enough. Both of these paths of development, i.e. from soc to DPA and from DPA to SOC can be illustrated diagrammatically. Units of new investment in soc are measured on the horizontal axis and units of new investment in DPA on the vertical axis. The curves aa_1 , bb_1 , cc_1 , show various quantities of SOC and DPA that will give the same gross national product.



Each curve towards right represent a higher level of gross national product. The 45° line connects the optimal points on the different curves. Any point on the line shows a balanced growth of SOC and DPA. We start; by expanding SOC from A to A_1 which induce DPA to increase until balance is restored at B and the whole economy will be at a higher level of output, If SOC is further increased from B to B_{11} it will increase DPA to C. Thus, the growth path followed will be AA_1 , BB_{11} C. This is the path of development via excess of SOC.

If the other path to development, via shortage of SOC, is followed, we start by increasing DPA to B_1 which will require. SOC to be increased to B so that a balance is established. If DPA is again increased to C_1 it will require an increase of SOC to C. The path of development will be AB_1 BC_1 C. This is the path of development via shortage of SOC.

The path via excess capacity of SOC is more continuous and smooth. Hirschman calls it "self-propelling". The other path via shortage of SOC capacity, is not like that because if there is a delayed adjustment of SOC as is likely, the DPA cost of producing a given output rises. To cite Hirschman. "Development, via shortage, is an instance of the 'disorderly', compulsory sequence, while via excess SOC capacity is essentially permissive."

6.4.4 Maximisation of Total Linkages

Prof. Hirschman argues that the linkages between different industries provide a good reason for concentrating on strategically selected areas of the economy. Having seen the merits of specific imbalances the problem is to find out what kind of imbalance is likely to be most effective ? The aim of the development policy should be to select and concentrate on particular strategic sector of the economy where these linkage effects can be expected “to be strongest. Any investment project may have both ‘*forward linkage*’, i.e., it may encourage investment subsequent stage of production and ‘*backward linkage*’ i.e., it, *may encourage investment in earlier stages of production*. Development should aim at discovering projects with the largest total linkage. Such projects vary from country to country and From time to time and can be found only cirical study of their input-output tables.

6.4.5 Pressure-creating and Pressure-relieving Investment

In determining the sequence of project, planning authorities should also gave attention of the alternation of “*pressure creating*” and “*pressure relieving*” investments. In countries with vigorously expanding private sector, the government function can be largely restricted to pressure-relieving. As private investment takes place, shortage and bottlenecks will appear in transport, public utilities, education, and other activities traditionally assigned to public enterprise in such societies. Government should not feel “restless and –slighted” when confined to this ‘reduced role’.

Where expansion through private investment is not assured, the government must play a more active role. For instance, it might build an iron and steel plant. To cite Hirschman, “It is interesting to note that the industries with the highest combined linkage score is iron and steel. But the industrial development clearly cannot be started everywhere with an iron and steel industry just because industry maximises linkages, the reason being lack of interdependence and linkage in under developed countries. For instance, agriculture including primary production and mining are weak in both backward and forward linkage effects. The primary production activities mostly of the “enclave” type leading to exports have, hardly any development effects on the economy in adding either to employment or to gross national product in under-developed countries.

6.4.6 Last Stage Industries First

Hirschman, therefore, advocates the establishment of *last stage industries* first. Last stage industries are also known as “import enclave industries” and produce backward linkage effects of wide range and depth. Backward linkage effects that are combined results of several “last stage industries in a country are of much importance in raising demand for a product which may, in due course of time, justify domestic last stage production”. When such a stage is reached, Hirschman recommends subsidies or protection to import-replacing industries.

Hirschman sums up this strategy of economic development as follows :

“Economic development typically follows a path of uneven growth. Balance is restored, as a result of pressure, incentives and compulsions, the efficient path towards economic development is somewhat disorderly and it will be strewn with bottleneck and shortages of skills, facilities, services and products. Industrial development will proceed largely through backward linkage, i.e. will work its way from the last touches, to intermediate and basic industries.

6.4.7 CRITICAL APPRAISAL

The doctrine of unbalanced growth as propounded by Hirschman is a great attempt and can be very useful in accelerating rate of economic development in under-developed countries. It is very

realistic as it takes into account almost all the aspects of development planning. It studies the various incentives, obstacles and resistances to development. Hirschman's discussion of forward and backward linkage effects together with last stage production is highly useful. The emphasis on export production and import substitution is very realistic in the context of conditions prevailing in under developed countries.

He is neither in favour of overall state planning of Soviet type nor does he advocate leaving everything to private enterprise. The suggestion that the government should concentrate on SOCs in order to encourage investment in DPA can be very useful in pulling an economy out of under development equilibrium. According to Prof. Myint the unbalanced growth, may be regarded as providing a school for entrepreneurs, assisting in the learning process of new entrepreneurs in under-developed countries. The doctrine, however has its own limitations. Despite all these merits, the doctrine of unbalanced growth has been criticized on the following grounds.

(a) Gives Rise to Inflation : The strategy of unbalanced growth is likely to create inflationary pressure in the economy. When large doses of investment are being injected into the economy at certain strategic points, income of the people will increase which will tend to increase the demand for consumer goods faster than their supply and hence an increase in price level. Such a situation is difficult to control as the government are incapable of using monetary and fiscal measures effectively to control price level.

(b) Leads to Excess Capacity : The adoption of the strategy of unbalanced growth involves a considerable wastage in the form of the maintenance of extra capacity. The rate of growth of the strategic sectors will be higher because of concentration of investment as compared with other sectors of the economy. The capital equipment in fast growing sectors will remain underutilized till other sectors are developed. In the initial stage of production, the social overhead capital created may not be fully utilised and hence a considerable wastage of resources may result.

(c) No Consideration to Composition, Direction and Timing : According to Prof. Meier, the theory of unbalanced growth pays inadequate attention to the composition, direction and timing of unbalance. The theory stresses the need of imbalance to be created in the most crucial sectors of the economy but it is silent about optimum degree of imbalance, where to create imbalance and how much. All these questions are left unanswered.

(d) Not Based on Data : Hirschman's analysis of "linkage effects" suffers from the drawback that it is not based on the data relating to under-developed countries. Due to lack of social overhead facilities in these countries, the linkage effects may be very weak.

(e) Overlooks Resistances : Another defect of the doctrine of unbalanced growth is that it concentrates on stimuli to expansion, and tends to neglect or minimise resistance caused by unbalanced growth. The supporters of unbalanced growth argue that it concentrates on stimuli to expansion, and tends to neglect or minimise resistances. They argue that active sectors will pull the others with them but they neglect the possibility that the passive sectors may drag the active sectors back.

(f) More Emphasis on Heavy Capital Goods Industries : From consumer's point of view, unbalanced growth process is more painful, because its main emphasis is on setting up heavy capital goods industries at the expense of consumer's goods industries. Balanced growth provides a less painful alternative.

6.5 SUMMARY

In the present lesson, we discussed both the strategies of balanced and unbalanced growth and we understand that both the doctrine of balanced and unbalanced growth have certain drawbacks. In the early stage of production, imbalance is inevitable and the technique has come to be recognised as a novel technique for the development of under-developed countries. The technique has been successfully adopted by Russia in accelerating its process, of development. India too, adopted it in its Second Five Year Plan. According to Prof. Meier, "For countries embarking on development, imbalance is inevitable, whether they want it or not and government and planners do not need the admonitions of theoreticians. All Investment create imbalance because of rigidities, indivisibilities, sluggishness of response of both supply and demand in these low elasticities economies and also because of miscalculations.

During the course of development, imbalance is inevitable and hence the question is Just to decide the degree and nature of imbalance. Prof. Meier observes, "The crucial question is not whether to create imbalance, but what is the optimum degree of imbalance and how much in order to accelerate growth; which are the 'growing points' where should the spearheads be thrust, on which slope would snowball grow into avalanches" About the doctrine of balanced growth, we may agree with Prof. Singer's remark that "The doctrine of balanced growth is premature rather than wrong in the sense that is applicable to subsequent stage of sustained growth rather than to the breaking of a deadlock."

Further, balanced growth may be suitable for a stagnant economy in which price system is not functioning, effectively and which is without access to foreign markets for its surplus goods and which has no foreign sources of supply for income-elastic products of consumption as Income grows.

Criticising the doctrine of balanced growth, we can say that "Balance is most discouraging operational slogan. To say that one cannot do anything until one can do everything or that economic development can be started only on a broad front or in almost all sectors, and sub-sectors, is to suggest that it is well-high hopeless. Administrative machinery will be overloaded, mistakes will be made".

There can be no end to the debate as to whether balanced or unbalanced growth is the greater stimulus to development. For one thing, the theories cannot easily be tested empirically, and for another the strategies are politically contentions. From the purely economic point of view however, there is really no reason at all why balanced and unbalanced growth should be presented as alternatives in the first place. Several attempts have been made, in fact, to present a reconciliatory view, notable by Mathur. One step towards this reconciliatory approach which both Hirschman and

Nurkse.. mention them selves is to treat unbalanced growth as a means of achieving the ultimate objective of balanced growth. A further step is to look for compatibilities in the two approaches. Since balanced growth is consistent with factors growing at different rates, provided supply and demand are in balance, the distinctive feature of the alternative strategic must be the imbalance between supply and demand. Unbalanced growth would concentrate resources in a few selected areas creating shortage elsewhere. But this is quite consistent with the big push version of the balanced growth doctrine provided the scale of investment is sufficient to overcome indivisibilities and complementarities. If unbalanced growth is detined not so much in terms of shortages as in terms of concentration on certain activities, according to comparative advantage or the existence of increasing returns, balanced and unbalanced growth can be complementary, strategies. There is no reason why development strategy should not draw on “the strong point of both doctrines so that an optimum strategy of development combines some elements to balance as well as of imbalance. The gain of real resources from concentration and specialisation must be weighted against the potential disadvantages, and perhaps a saving of resources through maintaining balance between different sectors. Historically, growth has been unbalanced and this is implicit in classified trade theory with balance being restored through imports. By and large, the present less developed countries are following the same route and pursuing, a combination of strategies. Resources tend to be concentrated ‘in a limited number of sectors, but within these sectors the investment programmes tends to maintain vertical balance, concentration of efforts is feasible in an open economy with the capacity to buy imports and at the same time investment is on a large enough scale for complementary activities to be established recognising interdependencies in production and consumption.

It is the association of balanced growth with planning which has tended to polarise opinion on the two strategies; but unbalanced growth need not preclude planning with a fixed strategy of concentration on particular sectors but balance within them should be there and a decision must has to be made on which sectors to concentrate and then resources allocated accordingly.

If unbalanced growth precludes planning-indeed, if that is its appeal, the issue is largely one of the distribution of gains from development, with balanced growth, there is an opportunity to distribute the benefits of development more evenly throughout society, to remedy inequity, to control inflation and to avoid the unemployment of resources, with unbalanced growth there is no guarantee against unemployment, inflation and negatively stewed income distribution, Left to itself, unbalanced growth is essentially a doctrine of laissez Faire, with no safeguards against the socially desired repercussions of change. At purely economic level the two strategies should be complementary rather than alternative strategies.

In this regard, Prof. G. Mathur aptly remarked The whole point of discussion has been to show that balanced and unbalanced growth are not always in conflict but are compatible categories which can co-exist and may each be either necessary or desirable for leading to the other.

Thus there should not be any unnecessary confrontation between the strategy of balanced and unbalanced growth. Rather we should have a strategy to attain economic development at a quicker pace and thereby if need be, there may be a compromise between the strategy of balanced growth and unbalanced growth. In this connection; Prof. Meier aptly remarked, “After much consideration, each approach has become so highly qualified that the controversy is essentially barren. Instread of seeking to generalise either approach we should more appropriately look to the conditions under which each ban claim some validity. In may be included that while a newly developing country should aim at balance-as an investment criterion, this objective will be obtained only by initially following inmost cases a policy of unbalanced investment.

Thus in the present context one should not consider the theory, of balanced growth as unsuitable, impracticable and purposeless strategy of economic development in underdevelopment countries. Rather it is to be understood that the strategy may not be applicable in the initial stages of development process but it can yield better result in the development process mostly in the long run.

Thus in the primary stage, the theory of unbalanced growth should be adopted to prepare, necessary ground or environment for the development. Once the environment is created, the doctrine of balanced growth will be adopted smoothly, in underdeveloped countries.

6.6 GLOSSARY

- Big Push - A minimum Quantum of investment necessary, though not sufficient condition for success.
- Indivisibilities - These are of three kinds – (a) demand (b) production (c) Supply of earnings
- Horizontal Balance - balance between different consumer goods industries.
- Vertical Balance - balance between Capital – good industries and Consumer good industries.

6.7 REFERENCES

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6.9 MODEL QUESTIONS

- Q1. What do you mean by the term big Push? Why is it necessary for the development?
- Q2. Explain the theory of balanced growth in detail?
- Q3. Critically examine the theory of unbalanced growth?

ECONOMIC INTEGRATION IN THE GLOBAL MARKET INTERNATIONAL TRADE AND ECONOMIC DEVELOPMENT

Structure

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7.0 Objectives

After going through the lesson, you will be able to :

- explain the importance of international trade in economic development.
- describe the different theories of trade and development relationship
- explain the favourable and unfavourable conditions for international trade
- describe how trade can lead to inequality at international level
- understand the concept of trade liberalisation and its effects

7.1 Introduction

In the last lesson, we studied about the strategies of economic development. We discussed about the balanced, unbalanced growth. We came to the conclusion that both these strategies are important for economic development. In the present lesson, we will discuss one more aspect of economic development i.e. international trade which is necessary for the economy to integrate with the world.

The study of international trade and finance is among the oldest and most controversial branches of the discipline of economics. It dates back to the sixteenth century and Europe's mercantilist passion for Spanish gold. It flowered in the eighteenth and nineteenth centuries as modern economic growth was fuelled and propelled by the engine of international trade. A deep and abiding concern with global international relations flourishes even more today not only because of the still bitter controversy between people who advocate more trade and those who advocate less, especially in the context of development, but also because modern transport and communications are rapidly shrinking the world to a "global village". It is in this context, you will be acquainted, in this lesson, and the next two lessons with the issues related with international trade and finance i.e. role of trade, foreign aid, foreign direct investments and multinational corporations in economic development.

7.2 IMPORTANCE OF INTERNATIONAL TRADE IN ECONOMIC DEVELOPMENT

Foreign trade has been described as an important vehicle of economic development. Both theoretical arguments as well as empirical data have been given to prove the assertion that foreign trade can cause economic development to a substantial degree. We shall consider the theoretical arguments first and the empirical later.

Free international trade promotes efficiency by leading to a international division of labour. Every country will specialize in the production of that commodity in which it is most efficient. This will naturally promote economic development.

Economic development requires investment which leads to increase in productive capacity. Investment requires funds. These funds can be raised indigenously or they can be obtained via international trade. This aspect of trade is specially beneficial for the underdeveloped countries. There are many types of capital equipment and machinery which, cannot be produced by the developing countries themselves. They can obtain this equipment via international trade. The developing country can specialize in the production of commodities for, which it has the requisite facilities. It will export a part of its output in exchange for their machinery it requires.

Also, international trade can assist in economic development via indirect methods. The establishment of industries catering to foreign markets can have linkage effects. This can assist in the setting up of other industries. For instance, the setting up of an export industry in making railway coaches will generate demand for steel, wood, glass and electric components. This will promote the establishment and progress of these industries. Also the infrastructural facilities created for the export oriented industries can be used by the other indigenous industries also.

Moreover, the products of the export industries are marketed in other countries, therefore, the small size of market, as a factor hampering economic development in the underdeveloped countries, will not operate in this case. Also, international trade is perhaps one of the best media for the transfer of technology skills and entrepreneurial activities. No doubt, it is true that such transfer can take place

through other media also. However, the role of international trade in this sphere is still important and cannot be under-rated.

International trade also helps in the easy flow of international capital movements. The main factor determining inter-national flows of capital on the private account is the case of repayment or the transfer problem. International trade provides a ready-made solution, for this transfer problem. A debtor country can repay the principal and interest via exports. No wonder, private foreign capital generally favours the export-oriented industries. A negative feature of such a preference is that other sectors like transport and communication and other public utilities get neglected. This is unfortunate for their contribution to economic development may be greater than export oriented industries.

International trade assists in economic development also by maintaining an atmosphere of competition. This naturally prevents the establishment of inefficient and exploitative monopolies. It may be pointed out here that some protection can be given to newly set-up industries. However, care will have to be exercised that such inefficient controls are withdrawn as soon as the protected industry has gained maturity.

A study of the economic history of England and Japan clearly brings out the importance of international trade as a factor in economic development. The cotton textile industry in England was a major sector which transmitted growth to the rest of the economy. It grew because of its external trade. During the nineteenth century, the economic development of Canada, Australia and New Zealand was also due to a large measure, to an expanding international trade. Soviet Russia was an exception. However, it did draw upon the technology evolved in England and other States which experienced the Industrial Revolution before the Soviet Union embarked upon her programme of planned economic development.

There do exist, however, countries which did not derive any tangible benefits from international trade. These are countries like India, China and most of the States in Africa and Latin America. It is not that these nations did not indulge in foreign trade. They did, but, not as independent partners. International trade for them becomes a vehicle of their exploitation rather than development. As a matter of fact, international trade led to the creation of dual economies which as you have already studied, is an obstacle to, rather than an engine of economic development.

International trade here also did not lead to any improvement or investment in the human and social capital. This was so because the nature of the international trade was such that it benefitted only the foreigners without any effects upon the masses which only just managed to extract a living from an underdeveloped and an overcrowded agriculture. Also, the underdeveloped countries have failed to take advantage of their trade in primary production to expand it further. Rather they went in for the import of manufactured goods. They also used the sale proceeds of exports to establish indigenous manufacturing industries.

Also, the trade pattern of the underdeveloped countries is not sufficiently diverse. They just depend upon one or two commodities. These are also primary. The international market for the primary goods is highly unstable. Prices fluctuated by a great degree. The terms of trade are unfavourable. All these factors have combined to prevent international trade from promoting economic development in the underdeveloped countries.

After discussing the importance of trade in economic development in general, Let us discuss specific stories about the trade and development relationship.

7.3 TRADE AND DEVELOPMENT RELATIONSHIP-THREE STORIES

While discussing the role played by international trade in economic development, generally three stories are told by the development economists.

Firstly, there is oldest and happy story which shows how the welfare of both countries which engage in trade is increased even when one country is absolutely very rich and the other is absolutely very poor.

The second, of much more recent vintage, is a dull and detailed story above the way in which differences in economic structure between countries bias the gains from trade in favour of the rich technologically advanced and industrialised economies and against the poor low technology agricultural economies.

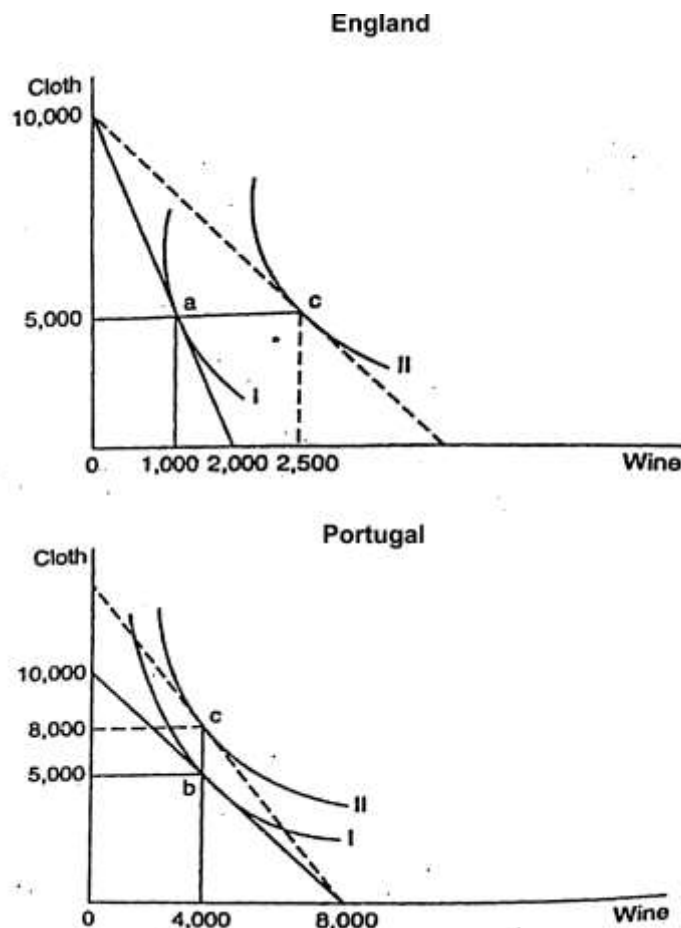
Thirdly, there is a story, more recent still, but tragic. It asserts that trade and economy specialisations have actually caused the underdevelopment of the periphery of the world by the very same processes that have developed the capitalist metropolis. The unhappy ending of permanent global polarity could only be rewritten if the international capitalist system were to be superseded (Smith and Toye, 1979).

7.3.1 The Story of Mutually Beneficial Trade

(a) The original variant of the story of mutually beneficial trade is the theory of comparative advantage which should not be seen as an explanation of how trade comes about. Rather it should be seen as a reminder that opportunities for mutually beneficial trade can exist and that static welfare losses will be incurred if these opportunities are neglected. This theory is the basis for explaining the static gains from trade.

The law of comparative advantage was first outlined by the English classical economist David Ricardo (1772-1823) in his *Principles of Political Economy and Taxation* (1857). According to him, even though a country may have an absolute productivity (cost) advantage in the production of every good, it will still pay a country to specialise in those commodities in which it has a comparative advantage i.e. in those commodities in which relative labour productivity is the highest or for which the opportunity cost of production is lowest. To illustrate the gains from trade, according to this law, Ricardo used the example of England and Portugal, both with the capacity to produce cloth and wine, but having comparative advantage in their products respectively. Suppose, for example, with its given resources. England can produce 10,000 yards of cloth or 2000 bottles of wine. The opportunity cost ratio of cloth to wine is 10 : 2. Portugal, on the other hand, with its resources can produce 10000 yards of cloth and 8000 bottles of wine. The opportunity cost ratio is 10:8, England has to sacrifice 5 yards of cloth to produce one bottle of wine, whereas Portugal only has to sacrifice 1.25 yards of cloth. Clearly, the opportunity cost of producing wine in Portugal is less than in England. However, England has to sacrifice one-fifth of a bottle of wine to produce one yard of cloth whereas Portugal has to sacrifice four-fifth of a bottle of wine. The opportunity cost of producing cloth in England is lower. Now, what can be shown here is that if there is an international rate of exchange between England and Portugal which is between the two domestic rates of exchange of 10:2 and 10:8, both countries can benefit by specialising in what they are at the best at producing in an opportunity cost sense, and exchanging goods at a more favourable rate of transformation internationally than domestically. This is shown in the following figure.

Fig. 1 : Gains from Trade



The solid linear lines show the Production Possibility Curves (or the marginal rate of transformation between the two goods) in the two countries; 10,000 yards of cloth and 2000 bottles of wine in England and 10,000 yards of cloth and 8000 bottles of wine the Portugal. Before trade, each country produces combinations of cloth and wine that give the maximum utility represented by indifference curve I. The two countries produce at a & b respectively, where the slope of the production possibly curve is tangential to the slope of the indifference curve. Now assume that with the opening of trade, there is an international price ratio of 10:5 shown by the broken line. England, if it specializes in cloth, can now exchange cloth for wine more favourably, and likewise Portugal can exchange wine for cloth more favourably. For example, in trading 5000 yards of cloth, England can now consume 2500 bottles of wine instead of 1000, while Portugal, trading 4000 bottles of wine, can now consume 8000 yards of cloth instead of 5000. Both countries move to higher levels of welfare at point C on the indifference curve II. As a result of the international division of labour, world production increases (in this example wine production increases from 5000 to 8000 bottles and cloth production stays the same) and world welfare increases.

(b) Now, the classical comparative advantage theory of free trade is a static model based strictly on a one-variable-factor (labour cost), complete specialization approach to demonstrating the gains from trade. The nineteenth-century free-trade model primarily associated with Ricardo was modified and refined in the twentieth century by two Swedish economists, Eli Hecksher and Bestil Ohlin,

(called commonly as Heckscher-Ohlin theory) is known to be as second variant of the first theory i.e. mutually beneficial trade theory of trade and development relationship.

Heckscher-Ohlin neoclassical (of variable proportions) factor endowments trade theory also enables us to describe analytically the impact of economic growth on trade patterns and the impact of trade on the structure of national economics and on the differential returns or payments to various factors the differential returns of payments to various factors of production. This theory attempts to give a specific account of how comparative advantages arise by rooting them in international differences in what are called factor endowments', their stocks of capital and labour at a given point in time. But this involves a change in assumption from those that underlie comparative advantage theory. Whereas the latter depends upon the assumption of different techniques of production (which account for the large differences in absolute productivity between rich and poor countries) for any given product, the Heckscher-Ohlin theory begins by reversing this assumption, so that each commodity is produced by the same technique in each country. Differences in the factor intensity of products combined with stocks of capital and labour varying between countries are then left to account for comparative advantages.

According to Heckscher-Ohlin theory, the basis for trade arises not because of inherent technological differences in labour productivity for differential commodities between different countries but because countries are endowed with different factor supplies. Given relative factor endowments, relative factor prices will differ (e.g. labour will be relatively cheap in labour-abundant countries), and so will domestic commodity price ratios and factor combinations. Countries with cheap labour will have a relative cost and price advantage over countries with relatively expensive labour in commodities that make intensive use of labour (e.g. primary products). It is on the strength of this reasoning that poor countries are recommended to specialise in labour intensive products and trade their surplus of such products for imports of the rich countries' capital intensive goods.

Conversely, countries well endowed with capital will have relative cost and price advantage in the production of manufactured goods, which tend to require relatively large inputs of capital compared with labour. They can thus benefit from specialization in and export of capital-intensive manufactures in return for imports of labour-intensive products from labour abundant countries. Trade therefore serves as a vehicle for a nation to capitalize on its abundant resources through more intensive production and export of commodities that require large inputs of those resources while relieving its factor shortage through the importation of commodities that use large amounts of its relatively scarce resources.

Thus, the factor endowment theory goes on to argue that capital-abundant countries will tend to specialize in such products as automobiles, aircraft, sophisticated electronic communication goods, and computers, which use capital intensively in their technology of production. They will export some of these capital-intensive products in exchange for the labor- or land –intensive products like food, raw materials and minerals that can best be produced by countries that are relatively well endowed with labour or land. (Todaro, 2012, p. 602).

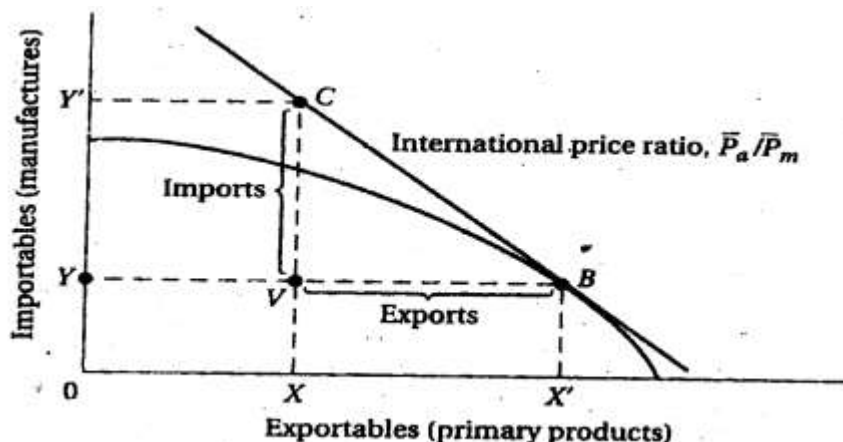
This theory, which played a predominant role in the early literature on trade and development, encouraged developing countries to focus on their labour and land intensive primary-product exports. It was argued that by trading these primary commodities for the manufactured goods that developed countries were theoretically best suited to produce, developing nations could realize the enormous potential benefits to be had from free-trade with the richer nations of the world. [For details see (Todaro, 2012)]

Thus the main conclusions of the neo classical model of free trade are that all countries gain from trade and world output is increased. Not only there are welfare gains from trade but also greater wage equality in poor countries because the demand for unskilled labour will rise relative to skilled labour. The wage gap between poor and rich countries should also narrow (Thirlwal, 2011, p. 508).

(c) The Third Variant of the story of mutually beneficial trade, the idea of trade as a 'vent for surplus' again rests on different assumptions from those underlying comparative advantage analysis or the factor endowment theory. The assumption of full employment in traditional trade models, like that of the standard perfectly competitive equilibrium model of microeconomic theory, violates the reality of unemployment and underemployment in developing nations. Two conclusions could be drawn from the recognition of widespread unemployment in the developing world. The first is that underutilized human resources create the opportunity to expand productive capacity and GNI and little or no real cost by producing for export markets products that are not demanded locally. This is known as the 'vent-for-surplus theory of international trade' which was first articulated by Adam Smith in his *Wealth of Nations* (1776). He writes; between whatever places foreign trade is carried on, all of them derive two distinct benefits from it. It carries the surplus part of the product of their land and labour for which there is no demand among them, and brings back in return something else, which may satisfy part of their wants and increase their enjoyment.

In the context of developing nations, the theory was expounded by Hla Myint, a Burmese economist. According to this theory, the opening of world markets to remote agrarian societies creates opportunities not to reallocate fully employed resources as in the traditional models but rather to make use of formerly underemployed land and labour resources to produce greater output for export to foreign markets. The colonial system of plantation agriculture as well as the commercialization of small scale subsistence agriculture were made possible, according to this view, by the availability of unemployed and underemployed human resources. In terms of the production possibility analyses, the vent-for-surplus argument can be represented by a shift in production from point V to point B in the following figure (2) with trade enlarging final domestic consumption from V to C.

Figure 2 : The Vent-for-Surplus Theory of Trade in LDCs



Source : Todaro (2012)

We see that before trade, the resources of this closed developing –world economy were underutilised. Production was occurring at point well within the confines of the production possibility frontier, and OX primary products and OY', manufactures were being produced and consumed. The opening up of the nation to foreign markets (probably as a result of colonization) provides the economic

impetus to utilize these idle resources (mostly excess land and labour) and expand primary-product exportable production from OX to OX_1 at point B on the production frontier. Given the international price ratio P_a/P_{m_1} $x' - X$ (equal to VB) primary products can now be exported in exchange for $Y' - Y$ (equal to VC) manufacturers, with the result that the final consumption point C, is attained with the same primary products (X) being consumed as before but with $Y' - Y$ more imported manufacture now available. Unfortunately in the short run, the beneficiaries of this process were often colonial and expatriate entrepreneurs rather than LDC nationals. And in the long run, the structural orientation of LDC economy towards primary-product exports in many cases created an export “enclave” and inhibited needed structural transformation in the direction of a more diversified economy.

So far we have discussed the static gains from trade based on the law of comparative advantage and gains by allowing surplus production over domestic consumption to be exported, there are some dynamic gains from trade from wider markets and the flow of knowledge. **The major dynamic benefit of trade is that export markets widen the total market for a country's producers, thereby allowing greater specialization, or division of labour. Specialization, in turn, stimulates capital accumulation and ‘learning by doing. Historically, this benefit of trade was recognised by Adam Smith in his famous book The Wealth of Nations (1776), as did J.S. Mill in his Principles of Political Economy (1848) in which he wrote; ‘a country which produces for a larger market than its own can introduce a more extended division of labour, can make greater use of machinery, and is more likely to make inventions and improvements in the process of production.’** Mill also recognized that the growth effects of trade depend on what a country specializes in: natural resources activities or manufacturing industries. It is the production of industrial goods, and particularly research intensive goods, that produces technical dynamism and rapid growth. ‘New’ growth theory which incorporates trade as pioneered by Gross man and Helpman (1991a & b), encapsulates many of these original ideas of Mill, Stiglitz (2006) also makes this point a country: whose static comparative advantage lies in, say, agriculture risks stagnation ...with limited growth prospects;.... the industrial sector is almost everywhere the source of innovation, (and) many of these advances spill over into the rest of the economy as do the benefits from the development of institutions, like financial markets, that accompany the growth of an industrial sector.

As alluded to above, a close connection between the size of the markets and the accumulation of capital is also established. Capital accumulation becomes easier with the larger size of the market. When there is no trade in the small country, there is very little scope for large scale investment in advanced capital equipment. Trade offers some escape, but at minimum size of domestic market in the first place is important to make trade viable. In this respect larger countries such as China and India are in a more favourable position than smaller countries such as Fiji, Mauritius or Gambia because large populations of India and China offer the basis for establishment of capital-goods industries and the production of manufactured goods, since production can take place on an economic basis before trade. The smaller country may need substantial protection for a commodity before it can be produced economically and compete in the world markets. The dynamic benefits of trade are represented by an outward shift of the production possibility curves of both countries, in Fig. 1, leading to a higher level of community welfare.

Now, going back to static gains from trade, according to Smith and Teye (1979), the happy ending of the story of mutually beneficial trade needs very considerable dilution. They are of the opinion that while there are static welfare gains from specialising according to comparative advantage when internal resources are fully mobile, the general prescription that poor countries have a comparative advantage in goods with low capital/labour ratios cannot be sustained. Therefore general recommendations that poor economies should specialise in labour intensive exports are simple-minded

or mischievous. Further, when trade opportunities do bring unemployed resources into voluntary employment, static welfare is obviously increased thereby. But the existing trade patterns between rich and poor countries cannot be interpreted as merely a result of this pleasantly pointless transition to full employment of resources in the poor country. Indeed, the best documented examples of vent-for-surplus trade are of a significantly different version from that mentioned above, the only idle resource in this version is a poor country's natural resource which enters the poor country's exports only because of an inflow of both foreign capital and foreign labour and its exploitation creates nothing except the familiar export enclave. Clearly this version of vent-for-surplus is not a story of mutually beneficial trade, but of structural biases in the gains from trade. This leads us to the second story related to trade and development relationship i.e. story of structurally biased gains from trade. This is discussed below.

7.3.2 The Story of structurally Biased Gains From Trade

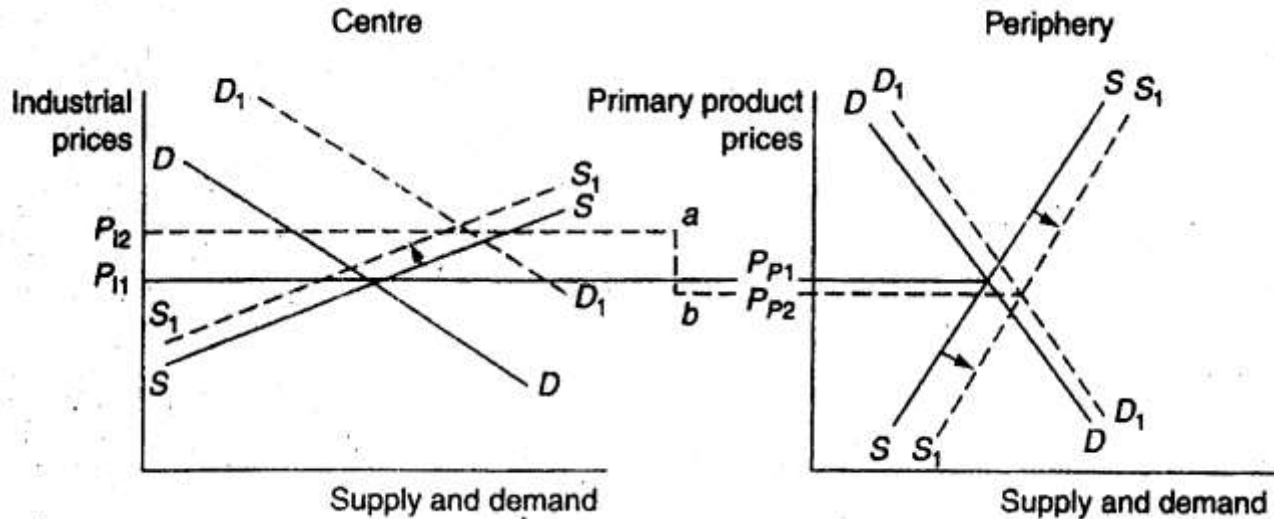
The theories of trade which suggest that the benefits of trade accrue disproportionately to rich countries not only recognise the differences in technological level between rich and poor countries but make these differences the pivot on which their arguments turn. (Smith and Toyae, 1979 p. 4). In addition, they depart from the exclusive emphasis on static resource reallocation in order to consider dynamic or historical processes. For example, the natural resource version of the vent-for-surplus model cites institutional rigidities related to pre-capitalist technology to explain why domestic capital and labour fail to combine with particular natural resources in poor countries and analyses the growth prospects of poor countries' export industries over the long run.

The best known exponent of the view that gains from trade are biased against poor countries is undoubtedly Prebisch. He argued that the bias operates through a secular decline in the terms of trade of primary producers vis-à-vis those of manufactured goods producers. In fact, Prebisch (1901-86) was one of the first development economists to question the mutual profitability of the international division of labour for developing countries on existing lines. He looked at the relation between trade and development from the stand point of the balance of payments rather than the augmentation of real resources. His major claim was that the unfavourable impact of unrestricted trade on the terms of trade and balance of payments of developing countries can far outweigh any advantages with respect to a more efficient allocation of resources. His concern was with two distinct, but not unrelated, phenomena. One is transference of the benefits of technical progress from the developing to the developed countries through terms of trade deterioration. The second is the balance of payments effects of differences in the income elasticity of demand for different types of products. He divided the world into industrial 'centres' and 'peripheral' countries, and then conducted his analysis within the framework of the traditional two country, two commodity case of international trade theory equating the developing countries with primary producers (the 'periphery') and the developed countries with industrial producers (the 'centre'). For the first phenomenon stated above, he gave two explanations. The first explanation concerns the relation between income and productivity. According to him, whereas factor incomes tend to rise with productivity increases in developed countries, they rise more slowly than productivity in the developing countries owing to surplus labour. This leads to greater upward pressure on final goods' prices in developed than in developing countries, causing the ratio of prices to move in the opposite direction to that suggested by the pace of technical progress. All this is on the supply side.

On the demand side, he says, the fact is that the demand for primary products grows more slowly than that for industrial products as world income grows, for two major reasons; (i) many primary commodities have intrinsically low-income elasticity of demand because they are necessities; and (ii) many primary commodities have been substituted by synthetics e.g. natural rubber and when we but

these demand and supply factors together, we can get the idea of what is likely to happen to the terms of trade of primary commodities through time. The following figure (3) provides us this plea.

Figure 3 : Movements in the Terms of Trade



Source : Thirlwal (2011)

In the centre, the supply and demand curves for industrial goods are relative elastic, and in the periphery the demand and supply curves for primary products are relatively inelastic. Initially supply and demand curves intersect at the same point in both the sectors, so that the prices of industrial and primary products are equal (i.e. the terms of trade = 1). Now afterwards, in the centre when technical progress takes place, it will first shift the supply curve SS outwards, but let us assume that increases in wage costs push it back inwards to S_1S_1 . In the periphery in contrast, technical progress shifts the supply curve outwards to S_1S_1 , but there is no inward shift due to rising wage costs. In the centre, the demand for industrial goods grows strongly from DD to D_1D_1 , while in the periphery the demand for primary products grows only slowly. The prices of industrial goods rises to P_{12} , while the price of primary products in this example has actually fallen to P_{p2} . The terms of trade of primary products has deteriorated by the account ab for fundamental economic reasons associated with the characteristics of the products and the institutional structures of the countries that produce them.

Prebisch also put forward a separate independent hypothesis of the secular deterioration in the terms of trade of primary products: the operation of a ratehet effect, with the prices of primary products relative to those of manufactured goods falling during cyclical downturns by more than they rise relative to the prices of manufacturers on the upturns. Such asymmetrical cycles tend to produce a secular trend deterioration.

So far as the second phenomenon is concerned, Prebisch says, there is disadvantage to the developing countries in the form of balance-of-payments effects of differences in the income elasticity of demand for different types of products. According to him, it is generally recognized and agreed that the income elasticity of demand for most primary commodities is lower than that for manufactured products. On an everage, the elasticity is probability less than unity, resulting the decreasing proportion of income spent on those commodities (commonly known as Engel's Law). In the two country, two commodities case the lower-income elasticity of demand for primary commodities means that for a given growth of world income, the balance of payments of primary-producing developing countries will

automatically deteriorate vis-à-vis the balance of payment of developed countries producing and exporting industrial goods. He has given simple example to illustrate this point; Let us assume that the income elasticity of demand for the exports of the developing countries is 0.8 and that the growth of world income is 3.0 percent. So exports will grow at 2.4 percent. On the other hand, if income elasticity of demand for the exports of developed countries is 1.3 and the growth of world income is the same ie 3.0 percent, then exports of developed countries will grow at 3.9 percent. Now with only two sets of countries, the developing countries, exports are the imports of the developed countries and the exports of the developed countries are the imports of the developing countries. This developing countries exports grow at 2.4 percent but imports grow at 3.9 percent and contrarily, developed countries exports grow at 3.9 percent and imports at 2.4 percent. Starting from equilibrium, the balance of payments of the developing automatically worsens while that of the developed countries shows surplus. This also affects the terms of made. With imports growing faster than exports in developing countries, and the balance of payments deteriorating, the terms of trade will also deteriorate through depreciation of the currency, which may cause balance of payments to deteriorate even more if imports and exports are price elastic (Thirlwal, 2012; p. 542).

It is easily seen that the price of balance of payments equilibrium is slower growth for the developing countries. If their exports are growing at 2.4 percent, imports growth must be constrained to 2.4 to percent, which means that with an income elasticity of demand for imports of 1.3, income growth in the developing countries must be restrained to $2.4/1.3=1.85$ percent for balance of payments equilibrium. In the absence of foreign borrowing to bridge the foreign exchange gap, or a change in the structure of exports, the result of different income elasticities of demand for primary and manufactured products is the slower growth in the primary producing countries-perpetuating the development 'gap'..

For terms of trade and balance-of-payments reasons (connected with each other), Prebisch therefore argued for import substitution and the protection of certain domestically produced goods. He was of the opinion that protection would enable scarce foreign exchange to be rationed between different categories of imports and could help to correct balance of- payments disequilibrium in resulting from a high. Income elasticity of demand for certain types of imports. Moreover, it could help to arrest the deterioration in the terms of trade by damping down the demand for imports.

7.3.3 Recent Trends in Terms of Trade

Now, whether the terms of trade have moved unfavourably against primary commodities and the developing countries is an empirical question. Prebisch originally suggested that there was 0.9 percent per annum average deterioration of the terms of trade of primary commodities between 1876 and 1938. Contemporarily, work by Hans Singer at the United Nations in 1949 also suggested a trend deterioration of 0.64 percent per annum over the same period. So a thesis was developed regarding declining terms of trade for primary commodities which came to be known as 'Prebisch Singer thesis'. Both of them argued that there was and would continue to be a secular (long term) decline in the terms of trade of primary commodities exporters due to a combination of low income and price elasticities of demand. This decline would result in an on going transfer of income from poor to rich countries that could be combated only by efforts to protect domestic manufacturing through a process that was come to be known as import substitution.

In a detailed reappraisal of Prebisch's work, Spraos (1980) confirmed the historical trend deterioration, but at the lower rate of approximately 0.5 percent, having corrected the statistics for the changing quality of goods, shipping costs and other factors. Sapsford (1985, 1988), however, shows that it is the 'wartime' structural improvement (1940-51) that makes the whole series look trendless. But if the series is divided into two sub-periods-pre-and post-Second World war – there is a trend

deterioration in both sub periods and the estimated trend deterioration over the whole period 1900-82 is 1.2 percent per annum, allowing for the wartime Structural break. Another study by Cashin and McDermott (2002) at the IMF, who looked at trends and cycles in both the nominal and real prices (i.e. the terms of trade) of non-food commodities over the period 1862 to 1999. They focussed on the magnitude and length of the cycles in real commodity prices, which they believe to be more serious than the trend decline. They found 13 occasions since 1913 when the annual price change was more than 20 percent in one year. This is serious volatility. They also found that average price slumps last longer than price booms (4.2 years compared with 3.6 years).

Blattman et. al. (2007) have looked historically at the relationship between terms of trade volatility and growth, taking 35 countries over the period 1870-1939 and found a negative relationship, and this is one of the major reasons why the income gap between the 'periphery' primary producing countries and the industrial countries widened during this period. One major adverse effect of volatility was the deterrent to foreign direct investment.

So far as the developing countries are concerned, there are some other studies. Sarkar (1986) has looked at the export prices of developing countries relative to those of developed countries, and also at the prices of exports from developing to developed countries (both excluding fuel). In the first case the trend deterioration was 0.51 percent per annum; in the second case the relative deterioration was 0.93 percent per annum. Bleaney and Greenway (1993) find that over the period 1955-89, a 1 percent deterioration in the terms of trade of primary products translated into a 0.3 percent deterioration in terms of trade for developing countries as a whole, although this would have been substantially greater for Africa and Latin America, which are more commodity-dependent than Asia.

Sarkar and Singer (1991, 1993) have also looked at the terms of trade of manufacturers exported by developing countries relative to those of developed countries over the period 1970-87, and find a deterioration of approximately 1 percent per annum. If this is the case, it would appear that the developing countries suffer double Jeopardy. Not only do the prices of their primary products decline relative to those of manufactured goods, but also the prices of their manufactured exports decline relative to those of developed countries; reflecting, no doubt, the commodity composition of these exports-their lower value added and lower income elasticity of demand of world markets. This is confirmed by Ertch (2010). Who has carefully examined the terms of trade for different group of developing countries using UNCTD data (e.g. countries exporting mainly primary commodities; countries exporting mainly manufacturers, the least developed countries and the highly indebted countries), and finds in all cases a decline in their terms of trade from 1960 to 2006 of between 1 and 3 percent per annum, with a severe structural break in the mid-1970s.

Thus, due to unfavourable terms of trade trends, developing countries have been doing their utmost over the past several decades to diversify into manufacturers export. After a slow and costly start, these efforts have resulted in dramatic shift in the composition of developing country exports, especially among middle income LDCs. Led at first by the East Asian Tiger economies of South Korea, Taiwan, Hong Kong and Singapore and now following by many other countries in Asia, including China and India, and in Latin America, the share of merchandise exports accounted for by manufactured goods has risen strongly in many developing countries.

Unfortunately, this structural change has not brought as many benefits to most developing countries as they had hoped, because relative prices within manufactures have also diverged; over the last few decades, the prices of the basic manufactured goods exported by poor countries fell relative to advanced products exported by rich countries. The price of textiles fell especially precipitously, and

low-skilled electronic goods are not far behind. Using alternative methods, the United Nations found that the real decline in developing-country export prices of manufacturers in the 1980s was about 3.5% per year, or about 30% for the decade. In a detailed study, Alf Maizels discovered that the terms of trade in manufactured goods for developing countries vis-à-vis the United States deteriorated over the period 1981-1997. The decline in textiles prices accelerated dramatically in the late 1990s.

7.3.4 The Story of Trade Induced Global Polarity

Marxist analysis of international trade though analytically more heterogeneous than those in the comparative advantage tradition tend to analyse the trade within the context of world capitalism or imperialism. Samir Amin's recent effort in this tradition is discussed here, not because it is taken to be the 'best' Marxist analysis of trade, but because it illustrates sharply some fundamental problems of analysis conducted at this generalised level. [Amin, 1974, 1976, 1977].

Amin's analysis of world capitalism is conducted in terms of two categories; Centre and periphery. While capitalism at the centre developed on the basis of the expansion of the home market whereas capitalism in the periphery is introduced from the outside; the economies of the periphery are without any internal dynamism of their own [Amin, 1976, p. 279]. Furthermore peripheral capitalism is distorted in three main ways; the distortion towards export activities, the 'hypertrophy' of the tertiary sector and the distortion towards light branches of activity and the use of modern production techniques. According to him, as economic growth proceeds, features of underdevelopment—such as disarticulation, domination by the centre etc. are accentuated, auto centric growth is impossible, since the periphery is 'complementary and dominated. According to Amin, economic relations between central and peripheral economies can be understood by means of the theory of unequal exchange. The essential elements of the theory in Amin's view are the pre-eminence of the world values i.e. in the world capitalist system. Social labour is crystallised in goods which have an international character, and the universal character of capitalist commodity alienation by means of direct or indirect sale of labour power. Since Capital is internationally mobile, the rate of profit tends to equality throughout the world, but since labour is internationally immobile, wages vary between countries. Hence the transformation of international values (the only meaningful ones) into international prices (again only the meaningful ones) implies the transfer of value from some nations to others. Simply stated, unequal exchange is the exchange of goods whose production involves wage differentials greater than those of productivity.

The policy implications of Amin's analysis can be summarised into two main points: First, underdeveloped countries have no freedom of manoeuvre in relation to world capitalism. So long as the underdeveloped country continues to be integrated in the world market, it remains helpless and the possibilities of local accumulation are nil. Second, as economic growth at the periphery occurs, underdevelopment develops; therefore, only a radical and complete break with the world capitalist system will provide the conditions necessary for genuine development. To illustrate the style and strategy of Amin's argument, it is worth quoting at some length his views on the possibilities of national financial independence.

The creation of a national currency confers on the local authority no power of effective control so long as a country's inclusion in the world market is not challenged even control of the exchange and of transfers does not prevent the transmission to the periphery of fluctuations in the value of the dominant currencies of the centre, does it prevent transmission to the periphery of the centre's price

structure. Money here constitutes the outward form of an essential relation of dominance, but it is not responsible for this relation (1974, p. 483). Thus economic policy at the national level in a peripheral capitalist economy is ineffective and the only solution is a revolutionary break with the world capitalist system.

7.4 CONDITIONS FAVOURABLE FOR TRADE

World Bank, in its world development report 1999-2000 has identified some condition that can be favourable for developing countries to employ foreign trade as a factor of economic growth. The conditions are listed as below:

- Increasing spread of globalisation translates into larger movement of goods and services across the nations.
- Continuing reallocation of manufacturing activities from industrial to developing countries offers ample opportunities to expand trade not only in goods but also in services, which are becoming increasingly tradable.
- Trade is intertwined with another element of globalisation: the spread of international production networks.
- Growth of trade is firmly buttressed by international institutions of long standing. The WTO, built on the legacy of GATT, is the latest step in creating a commercial environment more conducive to multilateral exchange of goods and services.

7.5 UNFAVOURABLE CONDITIONS

Most of the non-oil-producing developing countries are finding themselves face to face with a number of difficulties on the foreign trade as an 'engine of growth'. Some problems are mentioned below.

(a) Slow Growth of Demand for Primary Commodities

The demand for primary commodities, which form the principal exports of a developing economy, has not kept pace with the growth of world trade or with income levels in different countries. The world trade in primary commodities has been declining for the last five decades. Primary commodities formed more than 50 percent of the total exports of the world in the year 1956. This share

came down to 35 percent in 1977 and further to 26 percent in 1999. The decline in this phenomenon can be explained by the following factors.

- The increasing tendency of the market economies to protect their agriculture by imposing tariffs and non-tariff barriers*(NTBs)⁹ i.e. the instance on eco-labelling or similarly the proposed German ban on the use of harmful chemicals in textile goods is the latest instance.
- An inadequate increase in, demand for primary commodities in the developed market economies in the wake of industrialisation.
- Development of synthetic substitutes e.g. rubber is racing competition with synthetic rubber and plastics, cotton with other natural and synthetic fibres, Jute with poly propylene and polyethylene, sugar with high fructose corn sweeteners, copper with aluminium, glass fibre, plastics etc.
- In real terms, commodity prices are at their lowest presently over the last century, and a half. Growth rates are now at or near the replacement level so that little expansion can be expected from this source.

(b) Slow Growth of Exports from Developing Countries

Export of developing economies as a group has been slow to develop. As a result, the share of developing economies in the total world trade has maintained a downward trend. Thus, whereas this share was as high as 31 percent in 1950, it came down to 14 percent in 1960 and further to 5.9 percent in 1999¹⁰. This decline has been caused by factors like the emergence of trade blocs, restrictive commercial policies and the growth of monopolies. These trends are indicative of the fact that the developing economies have to race foreign trade as a barrier to overcome which they may require concerted efforts.

(c) Deteriorating Terms of Trade Analysis

The declining demand for primary products in the developed markets has given rise to the problem of worsening terms of trade, of the developing economies. Whereas prices of manufactured goods, specially capital goods have been rising in the world markets, there has been a tendency for a gradual fall in prices of primary goods. For example, according to a recent UN report, in the past, developing countries could get a tractor by exporting two tonnes of sugar but now they have to export seven tonnes of sugar to get the same tractor. So the terms of trade are turning adverse for the developing countries. Any adverse foreign trade price change works as a check on economic development.

(d) Trade Policies of Developed Countries

The free trade regime of the developed countries has gradually been replaced by protectionist trade regime and it is being viewed as permanent policy for times to come. Protectionist trade policies adopted by industrial countries affect prospects for developing country, exports of manufactures. For example, even within the North American Free Trade Area, high protection favours US sugar producers

⁹ Non-tariff barriers (NTBs) can be classified into two categories: Technical and non technical. Technical NTBs include such measures as a higher standard of processed food industry products, food safety, non-use of certain chemical and child labour. Non-technical ones include anti dumping duties and pre-shipment inspection. The non-technical NTBs can be contested at the WTO.

¹⁰ World Bank World Development Report 2000-2001 p 313

over Mexico exporters. The European Union, is also becoming discriminatory, producing unnecessary primary products and dumping them in the world market.

Increased emphasis in recent years on “fair” trade by the industrial countries, which can be viewed as a protective reaction to the serious adjustment problems these countries have themselves faced as a consequence of increased globalisation is a major development that tends to make it more difficult for developing countries to pull their income levels up by relying to a great extent on international trade and foreign investment.

In short, developing economies face many difficulties in their foreign trade operations. The numerous multilateral initiatives which have been mounted to tackle these problems have left them largely unresolved. Therefore, in the given circumstances the developing economies have to evolve a suitable trade policy mix that may create export outlets and as well may assure supplies of essential imports.

7.6 TRADE POLICY AND STRATEGY

The term trade policy refers to all the policies that have either direct or indirect bearing on the trade behaviour of a country, the details of the various policies depend upon the broad trade strategy adopted in the country. The trade strategy in turn, depends upon the broad strategy of development adopted by the planners. For example, if the development strategy is one of the giving relatively greater emphasis on development of industry rather than on agriculture, then the trade strategy should be suitably adopted to this development strategy. The strategy of trade may be inward-oriented or outward-oriented.

In a broader framework inward-looking strategy refers to all the policies which discourage reliance on foreign resources. Under this strategy, in its extreme form, no foreign aid is permissible, no movement of factors of production to or from outside, no multi-national corporations and no freedom in international communications. In the present world economy such an extreme form of inward-orientation hardly exists in any country.

The opposite of this extreme form of inward-orientation is the form of outward-orientation in which free movement of capital labour goods, multinational enterprises, open communication all are permitted.

In different countries at different times inward and outward orientation in different degrees are observed.

David Greenway was very influential in the first World Bank classification of trade regimes in its World Development Report 1987. Four Categories were identified.

- (iv) Strongly Outward – oriented countries, where there are very few trade or foreign exchange controls and trade and industrial policies do not discriminate between production for home market and exports, and between purchases of domestic goods and foreign goods.
- (iv) Moderately Outward – oriented countries, where the overall incentive structure is moderately biased towards the production of goods for the home market rather than for export, and favours the purchase of domestic goods.
- (iv) Moderately Inward – oriented countries, where there is a more definite bias against exports and in favour of import substitution.

- (iv) Strongly Inward – oriented countries, where trade contacts and the incentive structure strongly favour production for the domestic market and discriminate strongly against imports.

In the words of Paul Streeten, outward-looking development policies “encourage not only free trade but also the free movement of capital, workers, enterprises and students....., the multinational enterprise, and an open system of communications.” By contrast, inward looking policies stress the need for LDCs to evolve their own styles of development and to control their own destiny. This means policies to encourage indigenous “learning by doing” in manufacturing and the development of technologies appropriate to a country’s resource endowments. According to proponents of inward-looking trade policies, greater self-reliance can be accomplished in Streeten’s words, only “if you restrict trade, the movement of people, and communications and if you keep out the multinational enterprise, with its wrong products and wrong want stimulation and hence its wrong technology”.

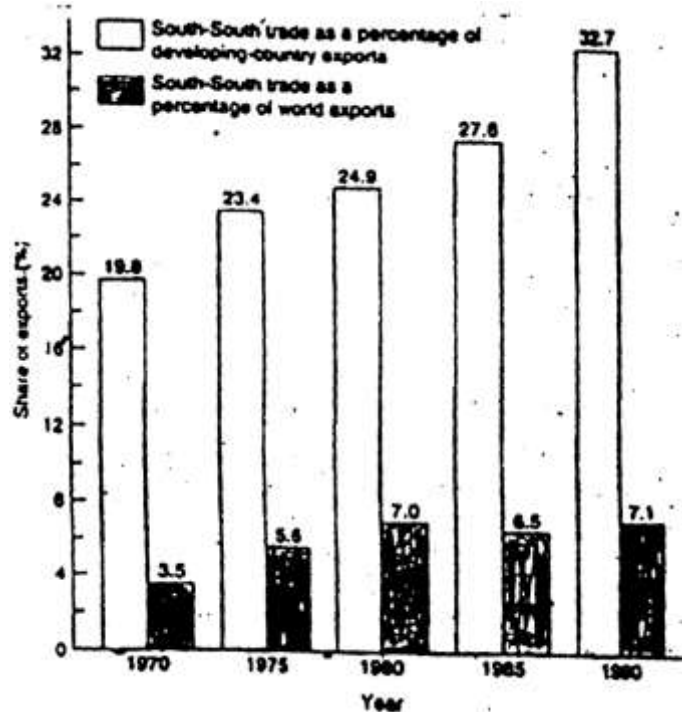
A lively debate regarding these two philosophical approaches has been carried out in the development literature since 1950s. The debate pits the free traders, who advocate outward-looking export promotion strategies of industrialization against the protectionists, who are proponents of inward-looking import substitution strategies. The latter predominated into the 1970s, the former gained the importance in the late 1970s and especially among western and World Bank economists in the 1980s and 1990s. Among many developing-country economists and certain developed-country advocates of the “new” or “strategic” trade theories, however, the philosophical foundations of import substitution and collective self-reliance remain almost as strong as they were in prior decades.

Practically, the distinction between Import Substitution and Export Promotion policies is much less pronounced than many advocates would imply. Both strategies have been employed, though in different degrees of emphasis, by the LDCs at one time or another. In 1950s and 1960s, the inward-looking industrialist strategies of the larger Latin American and Asian countries such as Chile, Peru, Argentina, India, Pakistan and the Phillipines were heavily IS oriented, by the end of 1960s, some of the key Sub-Saharan African countries like Nigeria, Ethiopia, Ghana and Zambia had begun to pursue IS strategies, and some smaller Latin American and Asian countries also joined in. However, since the mid 1970s, the strategy of export promotion has been increasingly adopted by a growing number of countries. Initially these countries were—South Korea, Taiwan, Thailand and Turkey which switched from an earlier IS strategy. At the same time, it must be noticed that most successful East Asian export promoters have pursued protectionist IS strategy sequentially and simultaneously in certain industries. Thus, though they are outward-oriented, they can’t be called free-traders.

7.7 ECONOMIC INTEGRATION IN THE GLOBAL WORLD

7.7.1 The Growth of Trade Among Developing Countries

Although trade among the development countries still represents a meager 7% of total world trade, twice its share in 1970, it grew rapidly during the 1980s. By 1990s. South-South trade represented almost 31% of all Third World exports. The following figure shows the expansion of this trade.



Trade in manufactures has risen from only 5% in 1960 to almost 35% of all exports in the early 1990. Much of the growth of these inter-LDC exports helped compensate for weak demand and protectionism in the developed world.

A key element of this increasing share of developing countries in international trade has been the rapid growth in south-south trade, i.e. trade with and amongst developing countries. In the last decade, south-south trade has out performed both world trade and south-north trade. In 2011, South-south merchandise exports reached \$ 4 trillion. Since 2008-09 the south has been exporting more to other developing countries than to the North. South-south trade in goods amounted to about US \$5 trillion in 2013 which corresponded to about a quarter of world good trade. It has been an important element in the overall growth of trade in the last decade, especially in helping revive the global economy after the financial crisis of 2008.

The significance of South-south trade in services is slightly less. Services exports from developing countries are still marked by a dominant south-north pattern, even though South-south has been catching up rapidly in recent years. Available estimates show that the share of south-south trade in developing countries' services exports has risen from 16.5% in 2000 to about a third in 2010.

The rising importance of South-South trade is mostly related to the trade performances of East-Asia economies. In 2013, more than 75 percent of south-south merchandise trade was shipped to or from, countries in East Asian region. Of course, China, which is the world's biggest merchandise exporter, is also the dominating player in south-south trade. In 2014, China alone accounted for 21 percent of exports and 27 percent of imports of all south-south trade.

Over the years, trade openness has contributed considerably to enhancing developing countries' participation in the global economy. From 1990-2008, the volume of exports from developing countries grew consistently faster than exports from the developed countries or the world as a whole, as did the share of developing countries exports in the value of total world exports. For example,

between 2000-2008, the volume of developing countries' exports almost doubled while world exports increased by only 50 percent. In the economic crisis of 2008, the developing countries' exports resisted the crisis better in the sense that their recovery had been more robust for instance, in the fourth quarter of 2009, the value of developing country exports had reached their 2007 third quarter level, whereas the value of developed countries exports had only reached their 2007 first quarter level.

However, not all developing countries participated equally in international trade. Asia was by far the most important exporting region in the developing country group, with a 10 percent share of world exports in 1990 (US \$ 335 million) which increased to 21 percent (US \$ 2603 million) in 2009. In contrast, Africa had the smallest share in world exports, at 3 percent, both in 1990 and 2009. Along with Africa, Latin America and Middle East have not experienced a notable increase in the share of world exports from 1990-2009. African exports, for example, increased from US \$ 106 million in 1990 to US \$ 379 million in 2009. In addition LDCs accounted for only 2.8% of the value of exports of the developing country group in 2009.

Developing countries joint trade profiles has changed drastically in the last two decades. Developing economies accounted for almost half of the world's merchandise exports in 2014, as compared to less than a third in 2000, and even less in the late 90s. Large emerging economies, in particular China and to a lesser extent India, have been the main engines of this growth. China almost tripled its share of world exports between 2000 and 2012.

Many development economists thus have argued that Third World Countries should orient their trade more towards one another. They base their arguments mainly on four points.

- (i) There are relative comparative-advantage changes to South-South as opposed to North-South trade.
- (ii) There are greater dynamic gains to be realized from such trade.
- (iii) Export instability resulting from fluctuations in developed country economic activity can be reduced.
- (iv) Greater collective self-reliance will be fostered.

The description of the arguments is given below. According to Todaro (1997), one strong variant of the South-South trade hypothesis is that LDCs should go beyond greater trade with one another and move in the direction of economic integration. Whenever a group of nations in the same region, which are of almost equal size and at equal stage of development, join together to form an economic union or regional trading bloc by rising a common tariff wall against the products of non member countries while freeing internal trade among members, is called the economic integration. In the terminology of integration literature, nations that levy common external tariffs while freeing internal trade are said to have formed a customs union. If external tariffs against outside countries differ among member nations while internal trade is free, the nations are said to have formed a free-trade area. Finally, a common market possesses all the attributes of a custom union and the free movement of labour and capital among the partner states.

According to him, the basic economic rationale for the gradual integration of less developed economies is a long term dynamic one: because integration provides the opportunities for industries that have not yet been established as well as for those that have to take advantage of economies of large scale production made possible by expanded markets. Integration therefore needs to be viewed as a mechanism to encourage a rational division of labour among a group of countries, each of which is too small to benefit from such a division by itself. Then integration is also required in order to enjoy

economies of large scale production and in order to avoid the duplication in setting up of the industries, and wastage of scarce resources.

The second rationale for this type of integration is that by removing barriers to trade among member states, the possibility of coordinated industrial planning is created, especially in industries where economies of scale are likely to exist. Though with this, member states will be able to accelerate the rate of industrial growth by assigning the given industries to different members takes the partners that much closer to full economic and eventual political union, sometimes problems of sovereignty and national self-interest impinge. To date, he says, they have overwhelmed the economic logic of a close and coordinated union. However, as Third World nations, especially small ones, continue to experience the futility of either development in isolation (autarchy) or full participation in the highly unequal world economy, it is likely that interest will increase in the coming decades in the long-run benefits of some form of economic cooperation including political.

Then there are two standard static evaluative criteria known as trade creation and trade diversion. Trade creation is said to occur when common external barriers and internal free trade lead to a shift in production from high to low-cost member states. Trade diversion is said to occur when the erection of external tariff barriers causes production and consumption of one or more member states to shift from lower cost non-member sources of supply (a developed country) to higher cost member producers.¹¹

7.7.2 Regional Trading Blocs and the Globalization of Trade

As it has been mentioned that Third World countries at relatively equal stages of industrial development with similar market sizes and with a strong interest in coordinating and relationalizing their joint industrial growth patterns stand to benefit most from the combined inward and outward-looking trade policies represented by economic integration. According to Todaro, regional groupings of small nations like those of central America and Southern and Western Africa can create the economic conditions for accelerating their joint development efforts. Such groupings can also promote long run development by enabling nations to block certain forms of trade with the more powerful developed nations and perhaps also to restrict or prohibit the deep penetration of multinational corporations into their industrial sectors. In any event, integration is crucial without cooperation and integration, the prospects for sustained economic progress for most low and middle-income LDCs will be greatly diminished.

But even if such an integration strategy may seem economically logical and persuasive on paper, he says, in practice it requires a degree of statesmanship and a regional rather than nationalistic orientation that is often lacking in many countries. The unfortunate demise of both the Central American Common Market and the East African Community in the 1970s demonstrates how political and ideological conflict can more than offset the economic logic of regional cooperation. Prior to 1990s, therefore, interregional conflict prevented trade liberalization from succeeding.

According to Todaro, the prospects for the future are much more positive. As trade becomes increasingly globalized, even the largest industrialized nations now realize that they cannot go alone. In Europe, a single economic market became a reality at the end of 1992 as all internal trade barriers were removed. By the end of the decade, the European Union may have a single currency, requiring close monetary coordination and in effect creating the largest global economic entity. Similar efforts are under way in North America, where the North American Free Trade Agreement (NAFTA) represents a

¹¹ Karl Goran Maler "Floor Discussion of Environment Poverty and Economic Growth, quoted in I C Dhingra; The Indian Economy (2001)

unique arrangement in that a developing country, Mexico, has joined a developed country trading bloc, Canada and the United States. Two major blocs now exist in Latin America, Argentina, Brazil, Paraguay and Uruguay in 1994 finalised arrangements for a free trade area called the Southern Cone Common Market, also known as Mercosur. In the four years after the original treaty was signed in 1990, regional trade in Mercosur more than tripled to \$ 12 billion and Brazil replaced the United States as Argentina's largest trading partner. Mercosur is taking advantage of sizeable economies of scale and a new expanded market of 180 million people and \$ 800 billions of economic activity. The other Latin American bloc, the Andean Group (Consisting of Bolivia, Colombia, Ecuador, Peru and Venezuela), established a full-fledged common market in 1995. In Africa, moves are under way to promote regional economic integration, the most promising hope being the newly formed South African Development Community (SADC).

But the critical question about all these new regional trading blocs, he says, is not whether they will promote greater internal growth but whether such regional groupings will fragment the world economy and run counter to the recent globalization of trade. Most economists believe that globalization is here to stay, particularly as multinational corporations set up subsidiaries, effective regional blocs can provide a buffer against the negative effects of globalization while still permitting the dynamic benefits of intra union specialization and greater equality among members to take place.

On the other hand, developing country trading blocks have a tough road ahead. Trade among members of NAFTA and the European Union is much more significant, even in the relative amount of trade conducted among countries within the bloc. For example, in 2002, 56.7% of all trade of NAFTA members Canada, Mexico and the United States were with each other, while the corresponding figure for the European Union was 60.6% of its trade. In contrast, the South American blocs each conduct only 23.7 % of its trade among member nations. The rate are much lower for most other developing country trading blocs. Moreover, the world bank estimated that whereas in 1995, developed –country trade barriers cost developing countries \$ 43.1 billion in lost welfare, developing-country trade barriers cost developing countries \$ 65.1 billion in lost welfare. Thus LDCs cost each other about half again as much as developed countries cost LDCs, in spite of the much smaller rise of the developing countries.

7.8 TRADE AS A MECHANISM OF INTERNATIONAL INEQUALITY¹²

Contrary to what the equilibrium theory of international trade would seem to suggest, the play of the market forces does not work towards equality in the remunerations to factors of production – and consequently, in incomes. If left to take its course, economic development is a process of circular and cumulative causation which tends to award its favours to those: who are already well endowed and even to thwart the efforts of those who happen to live in regions that are lagging behind.

So far as the trade is concerned, it does not by itself necessarily work for equality both on the international and on the national level. A widening of markets strengthens often on the first hand the progressive countries whose manufacturing, industries have the lead and are already fortified in surroundings of external economies, while the underdeveloped countries, are in continuous danger of seeing even what they have of industry and, in particular, their small scale industry and, handicrafts out-competed by cheap imports from the industrial countries, if they do not protect them.

If international trade did not stimulate manufacturing industry in the underdeveloped countries, but instead robbed them of what they had of old established crafts, it did promote the production of primary products, and such production, employing mostly unskilled labour came to constitute the basis

¹² For details of these concepts, see Todaro, M.P, (1997) Economic Development

for the bulk of their exports. In these lines, however, they often meet inelastic demands in the export market, often also a demand trend which is not rising very rapidly, and excessive price fluctuations. When, furthermore, population is rapidly rising while the large part of it lives at, or near, the subsistence level -which means that there is no scarcity of common labour -any technological improvement in their export production tends to confer the advantages from the cheapening of production to importing countries. Because of inelastic demands, the result will often not even be a very great enlargement of the markets and of production and employment. In any case the wages and the export returns per unit of product will tend to remain low as the supply of Unskilled labour is almost unlimited.

The advice and assistance, which the poor countries receive from the rich is even nowadays often directed towards, increasing their production of primary goods for exports. The advice is certainly given in good faith and it may even be rational from the short term point of view of each underdeveloped country seen in isolation. Under a broader perspective and from a long term point of view, what should be rational is above all to increase productivity, incomes and living standards in the larger agricultural subsistence sectors, so as to raise the supply price of labour and in manufacturing industry. This would engender economic development and real incomes per capita; But trade by itself does not lead to such a development, it rather tends to have back setting effects and to strengthen the forces maintaining stagnation or regression, economic development has to be brought about by policy interferences which however are not under the purview at this stage when we are analysing only the effects of the play of the market forces.

Neither can the capital movements be relied upon to counteract international inequalities between the countries. Under the circumstances described, capital will, on the whole, shun the underdeveloped countries, particularly as the, advanced countries themselves are rapidly developing further and can offer their owners of capital both good profits and security.

Hence if left unregulated, international trade and capital movements would thus often be the media through which the economic progress in the advanced countries would have back setting effects in the underdeveloped world, and their mode of operation would be very, much the same as it is in the circular cumulation of causes in the development progress within a single country. Internationally these effects will, however, dominate the outcome, much more, as the countervailing spread effects of expansionary momentum are so very much weaker. Differences in legislation, administration and more generally, in language, in basic valuations and beliefs, in levels of living, production capacities and facilities, etc. make the national, boundaries effective barriers to the spread to a degree which no demarcation lines within one country approach.

Even more important as impediments to the spread effects of expansionary momentum from abroad than the -boundaries and everything they stand for is, however, the very fact of great poverty and weak spread effects within the underdeveloped countries themselves. Where, for instance, international trade and shipping actually do transform the immediate surroundings of a port to a centre of economic expansion, which happens almost everywhere in the world, the expansionary momentum usually does not spread out to other regions of the country, which tend to remain backward if the forces in the markets are left free to take their course. Basically, the weak spread effects as between the countries are thus for the larger part only a reflection of the weak spread effects within the underdeveloped countries themselves.

Under these circumstances, the forces in the markets will in a cumulative way tend to cause even greater international inequalities between countries as to their level of economic development and average national income per capita.

7.9 TRADE LIBERALIZATION AND EFFECTS

The first thing regarding trade liberalization is that trade liberalization is not the same thing as trade openness. For example, a country may be very open in the sense that it has a high ratio of trade to GDP because it has abundant natural resources which it can only export, but may operate a very illiberal trade regime which makes trade difficult in other activities. Equally, a country with a low ratio of total trade to GDP, because it is a large country and relatively self-sufficient, may be very liberal its trading practices.

The most common measure of trade liberalization focusses on what is happening to tariffs and non-tariff barriers (NTBs) to trade, whether trade is based against exports in favour of import substitute, and the general micro-and macro-environment of a country in which trade takes place, including the level of the exchange rate, whether the state has a monopoly of major exports and monetary and fiscal conditions.

The process of trade liberalization can take many forms, but as Michaely et. al. (1991) say in their massive volume of case studies of trade liberalization in developing countries; 'very little is known about essential attributes of change from one (trade) regime to another, of a move away from a distorted trade policy regime towards a more neutral one,' on the other hand, we know that the issue of timings, phasing and sequencing are likely to be important in the design and implementation of a successful trade liberalization policy. (Rodrik, 1996, 2001).

Often the first stage of liberalization is the dismantling of non-tariff barriers to trade in the form of quotas and licences, not necessarily the reduction of tariffs. In fact, tariffs often rise to compensate for the removal of quantitative restrictions on imports. This makes protection more transparent and reduced rent-seeking behaviour. When protection is removed from an industry, production is likely to decline and unemployment rise. Capital is specific and will be left unutilized, and labour may not be mobile enough to be employed in other activities. This is a serious worry and can undermine the static welfare gains from trade liberalisation. It is certainly an argument against liberalizing imports too rapidly. As the relative prices of factors of production and goods change, there is also likely to be considerable redistribution effects which need taking account of in the process of liberalization.

The other thing to be seen is how trade liberalization affects the balance of payments. If rise in imports is greater than the exports, it can lead to balance of payments difficulties which may have negative growth effects. This has implications for the sequencing of trade liberalization. Imports should not be liberalized before the export sector has had time to adjust or respond in order for foreign exchange to be available to meet the higher import bill. Policy implication of this is that before serious import liberalisation takes place (as was the case in Japan and South Korea), anti-export bias needs to be removed or export subsidies should be given. East Asia provides an interesting case study of how countries should proceed, where the process of trade liberalization was gradual and export-oriented, in contrast to many Latin American countries where the process of liberalisation was sudden and no attention was paid to the sequencing.

In addition to this, experience of liberalization is much more likely to be successful in an environment of internal and external stability. One important thing here is that exchange rate should not be allowed to appreciate because it will worsen the balance between export and import growth. It

means that countries need to retain control of the capital account of the balance of payments, and not to liberalize capital flows at the same time as trade. It happened in many Latin American countries viz Mexico, Argentina and Peru, when they liberalized in the 1980s and 1990s and allowed their exchange rate to appreciate which damaged the trade balance and impacted negatively on growth.

Now, effects of trade liberalization cannot only be considered from the point of view of export growth, import growth and balance of payments but also from the point of view of its effects on overall economic performance of the economy and poverty and income distribution both domestic and international. But before discussing these in detail.

Now let us turn our attention to the empirical evidence on the relation between trade liberalization on one hand and export promotion, import growth, overall economic performance, poverty and income distribution etc.....To start with, it is generally believed that trade liberalization will arise the growth of exports because without it, various forms of trade restrictions, including export duties, cause anti-export bias. Earlier empirical evidence gives mixed and conflicting results, which suggests that the context in which trade liberalization takes place is of primary importance, particularly world economic conditions and domestic economic policies being pursued at the same time, especially with regards to the exchange rate. But a most comprehensive recent study by Santos-Paulino and Thilwall (2004), taking into consideration a panel of 22 countries that have adopted trade liberalization policies since the mid-1970s, concluded that controlling for other variables, liberalization has raised export growth by nearly 2 percentage points compared with the pre-liberalization period. According to them, the impact appears to have been the greatest in Africa (3.6 percentage points) and the least in Latin America (1.6 percentage points). There is also evidence that liberalization has increased the sensitivity of export growth to world Income growth; that is, liberalization has increased the income elasticity of demand for exports by including structural change.

So far as the growth of imports so concerned, it is maintained that if trade liberalization raises the growth of imports by more than exports, or raises the income elasticity of demand for imports by more than in proportion to the growth of exports, the balance of trade (or payments) will worsen for a given growth of output, unless the currency can be manipulated to raise the value of exports relative to imports. The consequence is that the growth of output may have to be constrained to avoid balance-of-payments crises. Two studies in this regard need mentioning. The first study was made by Parikh for UNCTAD (1999), examining 16 countries over the period 1970-95. The study concluded that trade liberalization seems to have worsened the trade balance by 2.7 percent of GDP, which is substantial. Another study made by Parikh for WIDER (2002), extending the analysis to 64 countries came out with the conclusion; the exports of most of the liberalizing countries have not grown fast enough after trade liberalization to compensation for the rapid growth of imports during the years immediately following trade liberalization. The evidence suggests that trade liberalization in developing countries has tended to lead to a deterioration in the trade account. Hence empirical evidence shows that trade liberalization has impacted unfavourably on the trade balance and current account balance of liberalizing countries.

It has been stated above that there has been an improvement in the export growth due to trade liberalization, but so far as the overall economic performance is concerned, some empirical evidence shows that trade liberalization promotes growth and a higher growth of living standard; but at the same time the results are not always robust and depend on the measure of liberalization used, the time period taken and the estimation method (Thirlwall, 2012). However, in 2000, Rodriguez and Rodrik concluded their evaluation of trade orientation and economic growth by saying that indicators of openness and liberalization used are either poor measure of trade barriers and or are highly correlated

with other determinants of domestic performance. According to Rodrik (2001); 'deep trade liberalization cannot be relied upon to deliver high rates of economic growth and therefore does not deserve the high priority it typically receives in the development strategy pushed by leading organisations'.

Now, let us discuss the effect of trade liberalization on poverty and domestic inequality. It is argued that there may be static efficiency gains from trade liberalization and a greater volume of trade, but there will also be welfare losses if domestic firms cannot compete as trade barriers fall and those thrown out of work cannot find alternative employment. In other words, the gains from trade to a country may not be equally distributed between people within a country, and some may lose absolutely. George (2010) cites production losses in some poor countries of more than 20 percent as a result of liberalization.

If more trade leads to faster economic growth, this should lift more people out of poverty and reduce the poverty rate, depending on the elasticity of the poverty rate with respect to growth, but as it is stated above that it is not necessary that trade liberalization will lead to faster economic growth, and even if the poverty rate declines, the income distribution may still become more unequal if the richest in the country gain relative to the poorest. However, Winters et al. (2004) concluded their major survey on trade liberalization and poverty by saying; there can be no simple relationship between trade liberalization and poverty. Theory provides strong presumption that trade liberalization should be poverty alleviating in the long run and on average equally, however, it does not assert that the static and micro economic effects of liberalization will always be beneficial to the poor. Trade liberalization necessarily implies distributional changes; it may well reduce the well-being of some people (at least in the short term) and some of these may be poor.

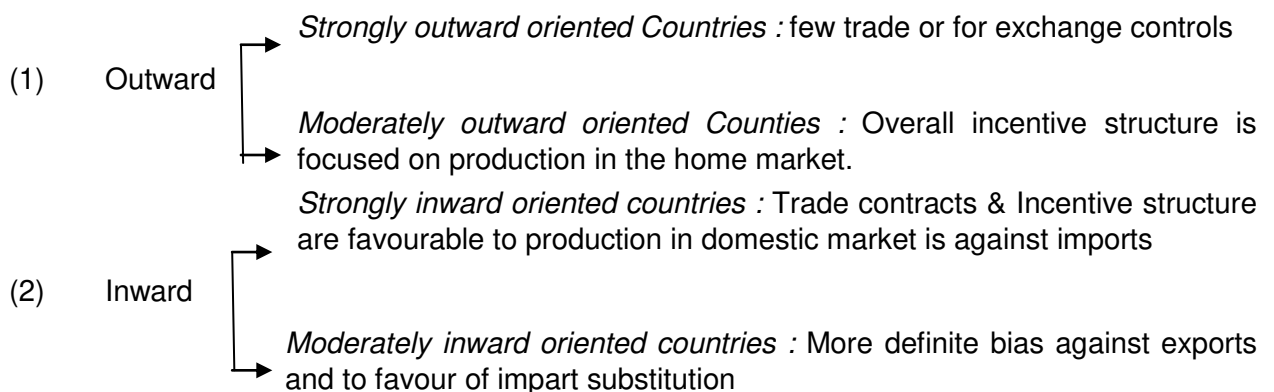
Moreover, it is stated at the same time, that if at all poverty reduces with trade liberalization, it is quite possible that wage and income inequality can rise because the share of income going to the top income recipients rises by more than the share going to the bottom. In general, what will happen to the income distribution as trade liberalization takes place will depend on how the wage distribution is affected, how the distribution of assets changes and what happens to the rate of return on assets. Milanovic (2005) undertake a detailed study of the impact of trade liberalization on the distribution of income and in his introductory survey of the existing literature, he remarks; The conclusions run nearly the full gamut, from openness reducing the real income of the poor to openness raising the income of the poor proportionately less than the income of the rich to raising both the same in relative terms. It is to be noted here that there are not results that show openness reducing inequality; that is raising the income of the poor more than the income of the rich let alone raising the absolute income of the poor by more. Goldberg and Pavcnik (2007), in their survey of the distributional effects of globalization in developing countries, say; (while inequality has many different dimensions, all existing measures of inequality for developing countries seen to point to an increase in inequality which in some cases is serve; And not only has the distribution of income within poor countries been increasing overtime, but also the distribution of income between poor and rich countries. There is little evidence which shows that free trade has contributed to a narrowing of the income gap between countries, as predicted by the orthodox trade and growth theory. To sum up, it can be stated that while there are some positive effects of trade liberalization, there are negative effects also and hence trade liberalization cannot be a substitute for a trade and development strategy.

7.10 SUMMARY

To sum up, the lesson explains the importance of international trade in economic development. It deals with different stories which relate trade and economic development. While there are some conditions which are favourable to economic development but at the same time some unfavourable conditions are also there. In spite of the benefits of international trade, it also works as a mechanism of international inequality. In the end, concept of trade liberalization is also explained and its effects are also explained. So it can be stated that trade liberalization cannot be substituted for trade and development strategy.

7.11 GLOSSARY

- Biased Gains from Trades – 'Benefits of Trade' accrue disproportionately to rich countries & are biased against poor countries.
- Trade Policy – It refers to all the policies that have either direct or indirect bearings on the behaviour of a country. Trade Policy depends on Trade Strategy.
- Trade Strategy – It is a part of broad Strategy of development adopted by the planners.
- Inward looking Strategy – It refers to all the policies which discourage reliance on foreign resources, It is extreme form, no foreign aid is possible.
- Orientation of a country is divided into four categories



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7.14 Model Questions

- Q1. Explain the importance of international trade to economic development.
- Q2. Which are the main stories that explain the relationship of economic development with international trade.
- Q3. What do you mean by the Inward and outward orientation of international trade.
- Q4. How would you explain the effect of international trade leading to international inequality?
- Q5. Discuss the meaning and effects of trade liberalization.

FOREIGN FINANCE AND ECONOMIC DEVELOPMENT (FDI AND MNCS)

Structure

- 8.0 Objectives
- 8.1 Introduction
- 8.2 Meaning of Private Foreign capital
- 8.3 Foreign Direct Investment (FDI)
 - 8.3.1 Types of FDI
 - 8.3.2 Recent Trends
 - 8.3.3 Emerging Scenario and Future Prospects in FDI
 - 8.3.4 Case for and against FDI in General
- 8.4 Meaning of Multinational Corporations (MNCs)
 - 8.4.1 Characteristics of MNCs.
 - 8.4.2 Significance of Multinational corporations
 - 8.4.3 Largest Multinationals
 - 8.4.4 The case against Multinational Corporations.
- 8.5 Private capital transferred through commercial Banks
- 8.6 Summary
- 8.7 Glossary
- 8.8 References
- 8.9 Further Readings
- 8.10 Model Questions
- 8.0 Objectives**

After going through the lesson you will be able to :

- explain the meaning of Private Foreign capital and Portfolio investment.
- understand the meaning of Foreign Direct Investment its types.
- discuss the role FDI plays in economic development.
- describe the recent trends in Foreign Direct Investment
- outline the significance of Multinational Corporations.
- evaluate the potential dangers of Multinational Corporations.
- enlist the largest multinational corporations in the world.

8.1 INTRODUCTION

In the last lesson, you were acquainted with the role of international trade in economic development. We also studied the three stories of relationship of international trade and economic development. In this lesson we will study about the role of foreign finance in economic development.

Balance of payments and its level of monetary reserves depend not only on its current account balance (its commodity trade) but also on balance of its capital account (its net inflow or outflow of private and public financial resources). In fact, balance of payments and its level of monetary reserves reflect true nature of a nation's financial situation. Due to deficits on current account, there is a continuous net inflow of foreign financial resources. It is more visible in case of almost all non-oil exporting developing nations as they are likely to incur deficits on their current account. In fact, net inflow of foreign financial resources represents an important aspect of their long-term development strategies.

Flow of international financial resources takes two main forms i.e., (i) private foreign direct investment and portfolio investment and (ii) Public and Private development assistance in the form of foreign aid.

- (i) Private Foreign Direct and Portfolio Investment Consists of (a) foreign "direct" investment by large MNCs with their Head quarters at some developed countries. (b) Foreign portfolio investment in the form of stocks, bonds and notes in LDCs emerging credit and equity and marvels by private institutions like banks, mutual funds corporations and individuals.
- (ii) Public and private development assistance in the form of foreign aid from (a) Individual national govts. And multilateral donor agencies generally known as official Development Assistance (ODA) and (b) Private Non-Governmental Organizations (NGOs) mostly working directly with developing nations at the local level.

In the context of dynamic emerging world economic scenario, contribution and critical evaluation of both FDI and development aid (foreign aid) in any form assumes special significance as both have got a lot of potential for the development. Thus the present lesson deals with the private FDI and MNCs in detail, while issues regarding development aid will be taken up in the next lesson.

8.2 MEANING OF PRIVATE FOREIGN CAPITAL

Private foreign capital or venture capital flows out in the form of loans i.e. portfolio investment and also in the form of equity capital i.e. direct investment. In addition, private capital moves out through commercial banks for investment in foreign countries. Portfolio investment involves the transfer of capital from one country to another by means of holding of bonds and securities of a firm or company in the borrowing country by parties in the lending country; while direct investment relates to the investment made by the entrepreneurs of a firm in one country in a subsidiary firm in another country. Apart from this reinvestment of profits in a firm in a foreign country which result in its expansion and growth should also be considered as direct investment. The fundamental point of distinction in these cases is that direct investment involves control by the investor of the enterprise in which investment is made. Private portfolio investment takes place through private parties in a country or its government selling bonds or securities in a foreign Stock Exchange Market. Thus capital is lent by private parties either to their counterparts or to the government of a foreign country. In the latter case, the foreign resources would be utilized by the borrowing governments concerned to finance government schemes or would be lent to private enterprises. The advantage of portfolio investment may be that a larger collection is possible at competitive rates of interest. Since the transaction is done on purely commercial

lines, the borrowing country has greater freedom in the matter of utilization of resources and can have greater control over the same.

Portfolio investment thus comprises of (i) equity holdings by non-residents in the recipient country's joint stock companies, (ii) creditor capital from private sources abroad invested in recipient country's joint stock companies, and (iii) creditor capital from official sources in recipient country's joint stock companies.

8.3 FOREIGN DIRECT INVESTMENT (FDI)

The management dimension is what distinguishes FDI from portfolio investment. In most instances, both the investor and the asset it manages abroad are business firms in such cases, the investor is typically referred to as the 'parent firm' and the asset as the 'affiliate' or 'subsidiary'¹³:

There are three main categories of FDI.

- Equity capital is the value of the MNC's investment in shares of an enterprise in a foreign country, an equity capital stake of 10 percent or more of the ordinary shares or voting power in an incorporated enterprise, or its equivalent in an unincorporated enterprise, is normally considered as a threshold for the control of assets. This category includes both mergers and acquisitions and 'green field investments i.e. the creation of new facilities.
- Reinvested earnings are the MNC's share of affiliate earnings got distributed as dividends or remitted to the MNC. Such retained profit by affiliates are assumed to be reinvested in the affiliate.
- Other capital refers to short or long term borrowings and lending of funds between the MNC and the affiliate.

Difference Between Foreign Investment and Collaboration

Although foreign investment and collaboration with foreign parties are very closely interrelated, they are not one and the same thing. Foreign investment may take place without foreign collaboration and vice-versa. Capital participation refers to the foreign partner's stake in the capital of the recipient country's company while technical services, licensing, franchise, trade marks and patents (for which he gets lump sum fee or royalty payments for a specified period.

8.3.1 Types of FDI

Literature on FDI classifies investment inflows into three broad groups¹⁴.

- **Market Seeking** : - These are attracted by the size of the local market, which depends on the income of the country and its growth rate.
- **Efficiency-Seeking** : - These depend on cost considerations. These are influenced by infrastructure facilities and labour costs.
- **Other location advantage** :- These include the technological status of a country, brand name and goodwill enjoyed by the local firms, openness of the economy, trade and macro policies pursued by the government and intellectual property protection granted by the government.

¹³ A subsidiary is defined in law as a company where the parent company has foreign equity exceeding 51 per cent.

¹⁴ NS, Siddharthan Declining investment Rate and Union Budget", EPW, Vol. XXXV No. 13, 2000.

There has been a vast increase in the amount of FDI going to developing countries in recent years. It rose from an annual rate of \$ 2.4 billion in 1962 to \$ 17 billion in 1980 and \$ 31 billion in 1990 before surging to over \$ 80 billion in 1993, It surged to over \$ 147 billion in 2002 and a record of \$ 334 billion in 2005. FDI flows into developing countries are now running at \$ 100 billion a year mainly into China and the countries of South-East Asia. Over \$ 56 billion flows from the DAC countries of the OECD-the amount doubling between 1990 and 1995. According to Thirlwall (1999), there are three major factors responsible for this rapid growth of FDI flows: the rise of multinational corporations and the search for global profits, the liberalization of global capital markets; and economic liberalization within the developing countries. The table below shows both the rapid recent growth of FDI and its concentration among 10 recipient nations in 2006.

Table-1
Foreign Direct Investment (FDI) in Developing Countries (1970-2003)
and Major Recipients of FDI in 2006.

Year	Net FDI Billion US (\$)	Ten Major Recipients of FDI	Stock of FDI as % of GDP
1970	3.1	China	26.7
1980	10.9	Hong Kong	276.3
1990	31.0	Singapore	174.2
1991	38.7	Russia	18.7
1992	42.5	Mexico	28.4
1993	53.2	Turkey	15.1
1994	78.1	Poland	31.3
1995	96.3	Brazil	22.4
1996	48.9	Chile	57.1
1997	119.4	India	7.1
1998	170.9		
1999	185.4		
2001	175.0		
2003	135		

Africa received less than 5% of the total, and the least developed countries got under 2%. This is not surprising given the fact that private capital gravitates toward countries and regions with the highest financial returns and the greatest perceived safety. According to Todaro (2005), where debt problems are severe, govts. are unstable, and economic reforms are just beginning, the risks of capital loss can be high. He says, we must recognise that multinational corporations are not-in the development business; their objective is to maximize their returns on capital. This is why over 90% of global FDI goes to other industrial countries and the fastest growing Third World nations. During 2005-06 to 2008-09. FDI flows assumed greater significance all over the world. As per the United Nations Conference on Trade And Development (UNCTAD) report titled, "Assessing the Impact of the financial

and economic crisis on global FDI flows.", the total flows increased from US \$ 25.1 billion in 2007 to US \$ 46.5 billion in 2008. This is despite 14.5 percent decline in global FDI inflows from US \$ 1940 9b. In 2007 to US \$ 1658.5 bi-in 2008. A comparative statement of different countries is given in the following table.

Table-2

Rank in 2008	Countries	2007	2008	Growth Rate
1	USA	232.8	320.9	37.8
2	France	158.0	126.1	-20.2
3	UK	196.4	96.8	-50.7
4	Belgium	70.0	94.2	34.6
5	China	83.5	92.4	10.6
6	Russia	52.5	70.3	34.0
7	Spain	68.8	65.5	-4.8
8	Hong Cong, China	59.9	63.0	5.2
9	India	25.1	46.5	85.1
10	Brazil	34.6	45.1	30.3
11	Sweden	22.1	40.4	83.1
	World			

As is clear from the table, India achieved a growth of 85.1 percent in FDI inflows which was the highest globally. In terms of UNCTAD survey (2008-10) China is the most preferred investment destination, followed by India. The United States, the Russian Federation and Brazil. Similarly at Kearney's 2007 FDI confidence index shows China, India and USA as the most preferred locations in that order.

With the reforms in policies, better infrastructure and vibrant financial sector, FDI inflows into India have accelerated since 2006-07. On a gross basis FDI inflows into India increased from US \$ 8.9 b. in 2005-06 to US \$ 22.8 b. in 2006-07 and further to US \$ 34.4 b in 2007-08 In the fiscal 2008-09 (April-Dec) gross FDI into India was US \$ 27.5 b. FDI inflows are spread across a range of activities like financial services, manufacturing, banking services. Information technology, services and construction.

FDI has grown significantly on the net basis also. The year-to-year growth in FDI (net) was 153.6 percent in 2006-07 and 100.2 percent during 2007-08. Outward investment by India increased from less than US \$ 2.4 b during 2003-04 and 2004-05 to US \$ 15.8 b. in 2006-07 and US \$ 21.3 b in 2007-08.

During fiscal 2008-09 (April-Dec), FDI into India (net) remained buoyant at US \$ 27.4 b (US \$ 20.0 b in April-Dec. 2007) reflecting relatively better investment climate in India and the continuing liberalization measures to attract FDI. Outward FDI (net) continued to remain high at US \$ 12.0 b. during April-Dec. 2008 even in the current economic situation, though it was marginally lower than its previous year's level of US \$ 13.1 b. Due to large in ward flows, the net FDI (inward minus outward FDI) was higher at US \$ 15.4 b in April-Dec 2008 as compared with US \$ 6.9 b. in April-Dec 2007.

Robust economic growth, an improved investment environment and opening up of critical sectors like telecommunications, civil aviation, refineries, construction etc. facilitated FDI inflows into India. According to UNCTAD study-world investment report, 2010 India is ranked as the 9th most attractive destinations for FDI up from 13th last year. It received \$ 35 billion FDI in 2009. Top ten positions, according to the report are given below in the table.

Table-3

Rank	Country	Amount of FDI (US \$)
1	U.S.	130 billion
2	China	95 billion
3	France	60 billion
4	Hong Kong	48 billion
5	U.K.	46 billion
6	Russia	39 billion
7	Germany	36 billion
8	Saudi Arabia	36 billion
9	India	35 billion
10	Belgium	34 billion

Rediff.com business

According to UNCTAD estimates (2011)-global inflows of foreign direct investment (FDI) rose marginally by 1% from \$ 1,114 billion in 2009 to almost \$ 1,122 in 2010. These stagnant global flows in 2010 were accompanied by divergent trends in the components of FDI. While the increased profits of foreign affiliates, especially in developing countries, boosted reinvested earnings, the uncertainty surrounding global currency markets and European Sovereign debt, resulted in negative intra-company loans and lower equity investments. Divergent trends were seen not only in components, uneven pattern is also seen among regions and modes of FDI. While FDI inflows to developed countries contracted further in 2010, those to developing and transition economics recovered and for the first time these economies (taken together) received more than half of the global FDI flows. The following table shows the FDI inflows by regions and major economy in 2009-10.

Table-4

FDI Inflows by Region and Major Economy, 2009-10

(Billions of Dollars)

Region/Economy	FDI Inflows		
	2009	2010	Growth Rate %
World	1114.1	1122.0	0.7
Developed Economies	565.9	526.6	- 6.9
Europe	378.4	295.4	- 21.9

European Union	361.9	289.8	- 19.9
Developing Economies	478.3	524.8	9.7
Africa	58.6	50.1	- 14.4
Latin America & the Caribbean	116.6	141.1	21.1
Asia and Oceania	303.2	333.6	10.0
West Asia	68.3	57.2	- 16.2
South, East and South East Asia	233.0	274.6	17.8
China	95.0	101.0	6.3
Hong Kong, China	48.4	62.6	29.2
India	34.6	23.7	- 31.5
Singapore	16.8	37.4	122.7
Malaysia	1.4	7.0	409.7
South East Europe & the CIS	69.9	70.5	0.8
Russian Federation	38.7	39.7	2.5

Source : UNCTAD

* UNCTAD (2011) – Global and Regional FDI Trends in 2010.

It can be seen from the table-4 that FDI flows to developing economies rose some 10% to \$ 525 billion in 2010, thanks to a relatively fast economic recovery and increasing South-South flows. Behind this general increase lie significant differences while Latin America and South, East and South East Asia experienced strong growth in FDI inflows, West Asia and Africa continued to see declines.

Inflows to Africa, which peaked in 2008 driven by the resource boom, appear to continue the downward trend of the previous year. For the region as a whole, UNCTAD estimates show that FDI inflows fell by 14% to \$ 50 billion in 2010. Though there was an increase of FDI from developing Asia and Latin America to Africa but it was not yet enough to compensate for the decline of FDI from developed countries which still account for the lion's share of inward FDI flows to many African countries.

Thanks to its position as a leader of the global economic recovery, FDI flows to South, East and South. East Asia has picked up markedly, out performing other developing regions. After a 17% decline in 2009, in flows to the region rose by about 18% in 2010, reaching \$ 275 billion, due to booming inflows in Singapore, Hong Kong (China), China, Indonesia, Malaysia in that order. FDI inflows (in the non-financial sector) to China, for example, reached more than \$ 100 billion. Breaking this general upward trend, South Asia experienced a 14% drop in FDI, mainly due to declines inflows to India from \$ 34.6 billion in 2009 to \$ 23.7 billion in 2010 thus registering a 31.5% drop in inflows of FDI over the period.

However the transition economies experience a halt in the decline of FDI inflows. These economies have registered a marginal increase in FDI inflows, of roughly 1%, in 2010 to \$ 71 billion, after falling more than 40% in the previous year.

World Investment Report 2012 by UNCTAD has summarized these trends in FDI in the following Table 5.

Table 5: FDI Flows, by Region, 2009-2011

(Billions of dollars and per cent)						
Region	FDI Inflows			FDI Outflows		
	2009	2010	2011	2009	2010	2011
World	1.197.8	1309.0	1524.4	1175.1	1451.4	1694.4
Developed economies	606.7	618.6	747.9	857.8	989.6	1237.5
Developing economies	519.7	616.7	684.4	768.5	402.1	383.8
Africa	52.6	43.1	42.7	3.2	7.0	3.5
East and South-East Asia	206.6	294.1	335.5	176.6	243.0	239.9
South Asia	42.4	31.7	38.9	16.4	13.6	15.2
West Asia	66.3	58.2	48.7	17.9	16.4	25.4
Latin America and the Caribbean	149.4	187.4	217.0	54.3	119.9	99.7
Transition economies	72.4	73.8	92.2	48.8	61.6	73.1
Structurally weak, vulnerable and small economies						
	45.2	42.4	46.7	5.0	11.5	9.2
LDCs	18.3	16.9	15.0	1.1	3.1	3.3
LLDCs	28.0	28.2	34.8	4.0	9.3	6.5
SIDS	4.4	4.2	4.1	0.3	0.4	0.6
Memorandum: percentage share in world FDI flows						
Developed economies	50.6	47.3	49.1	73.0	68.2	73.0
Developing economies	43.3	47.1	44.9	22.8	27.6	22.6
Africa	4.4	3.3	2.8	0.3	0.5	0.2
East and South-East Asia	17.2	22.5	22.0	15.0	16.7	14.2
South Asia	3.5	2.4	2.6	1.4	0.9	0.2
West Asia	5.5	4.4	3.2	1.5	1.1	1.5
Latin America and the Caribbean	12.5	14.3	14.2	4.6	8.3	5.9
Transition economies	6.0	5.6	6.0	4.2	4.2	4.3

Structurally weak, vulnerable and small economies						
	3.8	3.2	3.1	0.4	0.8	0.5
LDCs	1.5	1.3	1.0	0.1	0.2	0.2
LLDCs	2	2.2	2.3	0.3	0.6	0.4
SIDS3	0.4	0.3	0.3	0.0	0.0	0.0

Source : UNCTAD, World Investment Report, 2012.

FDI flows to developed countries grew robustly in 2011, reaching \$ 748 billion, up by 21% from 2010. Nevertheless, the level of their inflows was still a quarter below the level of the pre-crisis three year average. Despite this increase, developing and transition economies together continued to account for more than half of global FDI (45% and 6% respectively) for the year as their combined inflows reached a new record high rising 12 percent to \$ 777 billion. Reaching high level of global FDI flows during the economic and financial crises it speaks to the economic dynamism and the strong role of these countries in the future FDI flows that they maintained this share as the developed economies rebounded in 2011.

Rising FDI to developing countries was driven by a 10 percent increase in Asia and a 16 percent increase in Latin America and the Caribbean. FDI to the transition economies increased by 25 percent to \$ 92 billion. Flows to Africa, in contrast, continued their downward trend for a consecutive year, but the decline was marginal. The poorest countries remained in FDI recession, with flows to the least developed countries (LDCs) retreating 11 percent to \$ 15 billion.

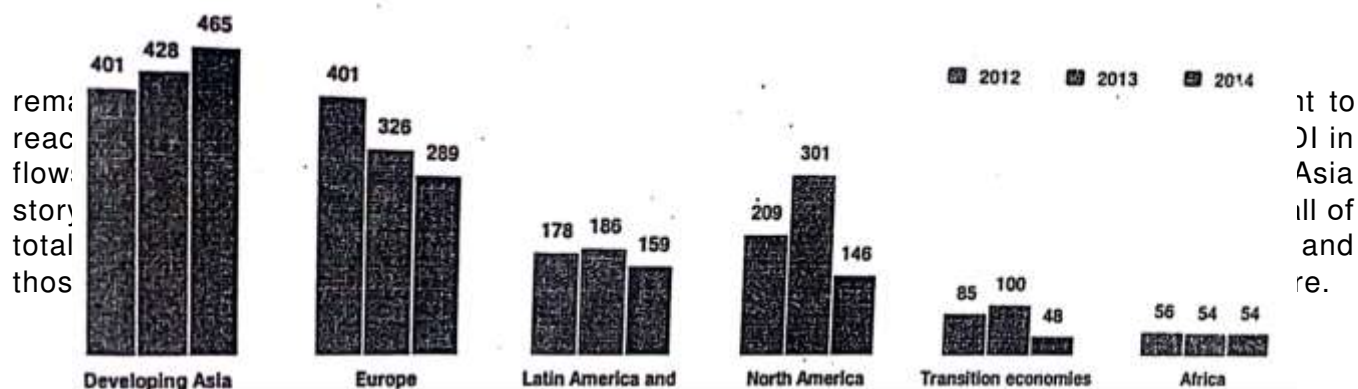
A resurgence in economic uncertainty and the possibility of lower growth rates in major emerging markets risks undercutting this favourable trend in 2012. Report predicted the growth rate of FDI to be slowed down in 2012, with flows leveling off at about \$ 1.6 trillion, the midpoint of a range. Weak levels of M &As announcements also suggested sluggish FDI flows in the later part of the year.

According to UNCTAD's tenth Global Government Trend Monitor, global FDI declined by eight percent in the first half of 2012 as economic recovery suffered new set backs in the second quarter of the year. In developing world also, FDI inflows decreased by 5 percent. The report finds that global FDI fell by \$ 61 billion, with the decline mainly caused by a drop of \$ 37 billion in inflows to the US and a fall of \$ 23 billion in inflows to BRIC countries Brazil, Russian Federation, India and China. China however emerged as the world's largest recipient of FDI in the first half of 2012, followed by United States, says the report. It further states, that "for the first time, developing economies alone accounted for a half of the global total emphasizing it distinguished developing countries from the so called 'transition' economies, such as those of South East Europe and the Commonwealth of Indian States."

8.3.2 Recent Trends

Global foreign direct investment (FDI) inflows fell by 16 percent in 2014 to \$ 1.23 trillion, down from \$ 1.47 trillion in 2013. The decline in FDI flows was influenced mainly by the fragility of the global economy, policy uncertainty for investors and elevated geopolitical risks. New investments were also offset by some large divestments.

The global FDI decline marks regional variation. While developed countries and economies in transition saw a significant decrease, in flows to developing economies



Source – World Investment Report - 2015

FDI flows to Latin America and the Caribbean-excluding the Caribbean offshore financial centres – decreased by 14 percent to \$ 159 billion in 2014, after four years of consecutive increases. This decrease was mainly the consequence of a 72 percent decline in cross – border mergers and acquisitions (M&As) in central America and the Caribbean and of lower commodity prices, which reduced investment in the extractive industries in South America. While FDI flows to Mexico, the Bolivarian Republic of Venezuela, Argentina, Colombia and Peru declined, flows to Chile increased, owing to high levels of cross border M&As sales. In Brazil, the sharp fall of FDI in the primary sector was compensated by an increase in FDI in manufacturing and services, keeping total flows similar to 2013 levels. (World Investment Report 2015).

According to the report, inflows to Africa remained stable at \$ 54 billion. North Africa saw its FDI flows decline by 15 percent to \$ 12 billion, while flows to sub-Saharan Africa increase by 5 percent to \$ 42 billion. In sub-Saharan Africa, FDI flows to West Africa declined by 10 percent to \$ 13 billion, as Ebola, regional conflicts and falling commodity prices negatively affected several countries. Flows to Southern Africa also fell by 2 percent to \$ 11 billion. By contrast, central Africa and East Africa saw their FDI flows increase by 33 percent and 11 percent, to \$ 12 billion and \$ 7 billion respectively.

FDI flows to developed countries dropped by 28 percent to \$ 499 billion. Inflows to the United States fell to \$ 92 billion (40% of their 2013 level), mainly due to Vodafone's divestment of Verizon, without which flows into United States would have remained stable. FDI flows to Europe also fell by 11 percent to \$ 289 billion, one third of their 2007 peak, while in North America FDI dropped 51 percent to \$ 146 billion. Among European economies, inflows decreased in Ireland, Belgium, France and Spain while they increased in United Kingdom, Switzerland and Finland.

Inflows to transition economies declined by 52 percent to \$ 48 billion, as regional conflict & sanctions deterred new foreign investors. FDI flows to the Russian Federation fell by 70 percent to \$ 21 billion, in part an adjustment from the level reached in 2013 as a result of the Rosneft – BP mega- transaction.

FDI flows to Asia grew by 10 percent to \$ 456 billion in 2014. East Asia, South Asia & South East Asia all saw increased inflows. FDI in China amounted to \$ 129 billion, up by 4 percent from 2013, mainly because of an increase in FDI in the services sector. FDI inflows also rose in Hong Kong (China) and Singapore. India experienced a significant increase of 22 percent to \$ 34 billion. Overall China became the largest FDI recipient in the world in 2014. The following table gives the position of 20 host countries receiving FDI in 2013, 2014.

FDI Inflows: Top 20 host Economies, 2013-2014 (Billions Dollars)

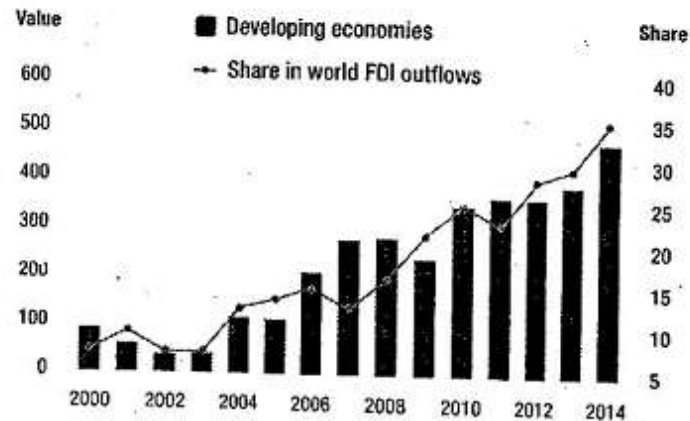
Developing economies: FDI outflows and their share in total world outflows, 2000–2014

(Billions of dollars and per cent)

Source: UNCTAD (2015)

We can see that the large Verizon divestiture in the world, five are down word trend in billion, owing to the

So far as the FDI investor region. In 2014, 468 billion from the previous year. Their 2007. The following



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).
Note: Excludes Caribbean offshore financial centres.

primarily because if in FDI recipients, in Asia continued their 4 percent to \$ 43

the world's largest whole increased to \$ 6 increase from the 13 percent in

In contrast, net investment by developed countries was flat, primarily because a large expansion some developed country MNEs was offset by large divestments by others. FDI outflows from transition economies fell by 31 percent to \$ 63 billion as natural resource based MNEs, mainly from the Russian Federation, reduced their investment abroad. Developing economies now account for more than one-third of global FDI outflows, up from just about one-tenth in 2000.

South-South FDI flows, including intraregional flows have intensified in recent years. FDI from developing economies has grown significantly. The largest outward investing economies include Brazil, China, Hong Kong (China), India, the Republic of Korea, Malaysia, Mexico, Singapore, South Africa and Taiwan Province of China. FDI outward stock from developing countries to other developing economies excluding Caribbean offshore financial Centres, grew by two-thirds from \$ 1.7 trillion in 2009 to \$ 2.9 trillion in 2013. East Asia and South-East Asia were the largest recipient developing regions by FDI stock in 2013. The share of poorest developing regions in South-South FDI is still low, but it is growing.

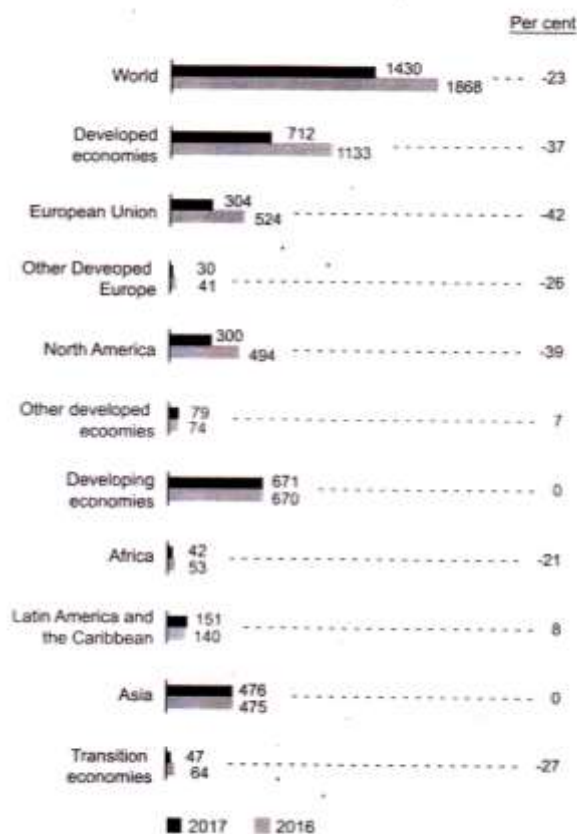
8.3.3. Emerging Scenario and Future Prospects in FDI

Global foreign direct investment (FDI) flows fell by 23 percent in 2017, to \$1.43 trillion from a revised \$ 1.87 trillion in 2016. While other macro economic variables such as GDP and trade saw substantial improvement in 2017. FDI flows fell sharply in developed economies and economies in transition while those to developing economies remained stable. So developing economies accounted for a growing share of global FDI inflows in 2017, absorbing 47 percent of total, compared with 36 percent in 2016.

So far as FDI inflows by regions are concerned, the following diagram presents a clear picture.

FDI inflows to developing Asia were stable at \$476 billions. The modest increase in Latin America and the Caribbean (+ 8 percent to \$ 151 billion) compensated for the decline in Africa (– 21 percent to \$ 42 billion). The slump in FDI flows to Africa was due largely to weak oil prices and lingering effects from the commodity bust, as flows contracted in commodity-exporting economies such as Egypt, Mozambique, the Congo, Nigeria and Angola. Foreign investments to South Africa also contracted by 41 percent.

FDI inflows, by region, 2016-2017
(Billions of dollars and per cent)



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics)

Source : World Investment Report, 2018

Developing Asia regained its position as the largest FDI recipient region. Against the backdrop of a decline in the world wide FDI, its share in global inflows rose from 25% in 2016 to 33% in 2017. The largest three recipients were China, Hong Kong (China) and Singapore. With reported inflows reaching an all-time high, China contributed to be the largest FDI recipient among developing countries and the second largest in the world behind the United States.

The increase in FDI flows to Latin America and Caribbean constituted the first rise in size years. Inflows are still well below the peak reached in 2011 during the commodity boom. Although commodities continued to underpin investment in the region, there is now a shift towards the infrastructure, finance, business services ICT and some manufacturing.

FDI flows to transition economies in South East Europe and the commonwealth of Independent States (CIS) declined by 27 percent in 2017, to \$ 47 billion, following the global trends. This constituted the second lowest level since 2005. Most of the decline was due to sluggish FDI flows to four major CIS economies : The Russian Federation, Kazakhstan, Azerbaijan and Ukraine.

As a result of these regional variations, the share of developed economies in world FDI flows as a whole decreased to 50% of the total. Half of the top 10 host economies continued to be the developing economics.

FDI inflows, top 20 home economies,
2016 and 2017 (Billions of dollars)



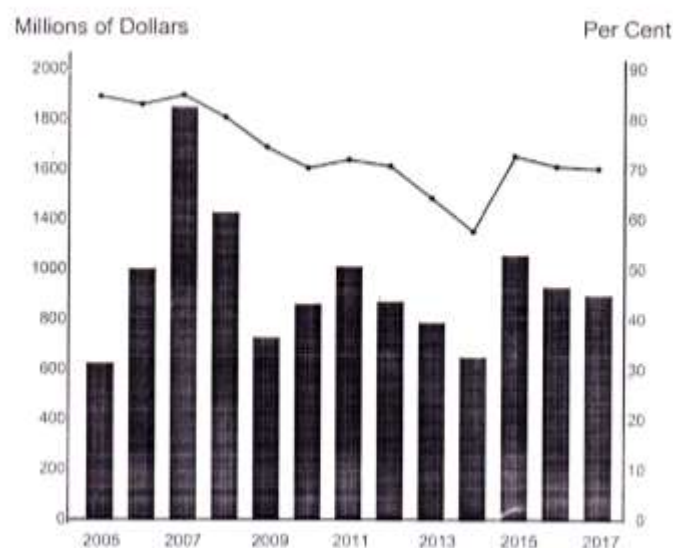
Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics)

The United States remained the largest recipient of FDI, attracting \$275 billion inflows, followed by China, with record inflows of \$136 billion, despite an apparent slowdown in the first half of 2017.

FDI outflows :

MNE from developed economies reduced their overseas investment activity only marginally. The flow of outward investment from developed economies declined by 3 percent to \$ 1 trillion in 2017. Their global share of outward FDI flows was unchanged at 71 percent.

Developed Economies; FDI outflows and their Share in
Total World's Outflows



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics)

Flows from developing countries fell by 6 percent to \$381 billion, while those from transition economies rose 59 percent to \$40 billion.

So far as European MNEs are concerned, outward investment fell by 21 percent to \$ 418 billion in 2017. This was driven by sharp reductions in outflows from the Netherlands and Switzerland. Outflows from the Netherlands – largest source country in Europe in 2016–dropped by \$ 149 billion to just \$ 23 billion, owing to absence of the large mega deals that characterized Dutch outward investment in 2016. As a result, the country's equity outflows fell from \$ 132 billion to a net divestment of \$ 5.2 billion. In Switzerland, outflows declined by \$ 87 billion to \$ 15 billion. Equity flows fell by \$ 47 billion and intercompany loans fell by \$ 42 billion.

In contrast, outflows from the United Kingdom rose from – \$ 23 billion in 2016 to \$ 100 billion in 2017, as a result of large purchases by MNEs based in the United Kingdom.

Investments by MNEs in North America rose by 18 percent to \$ 419 billion in 2017. Most outward FDI from the United States – the largest investing country is in the form of retained earnings. Reinvested earnings in the fourth quarter of 2017 were 78 percent higher than during the same period in 2016, in anticipation of tax reforms.

Investment activity abroad by MNEs from developing economies declined by 6 percent, reaching \$381 billion. Outflows from developing Asia were down a percent to \$350 billion as outflows from China reversed for the first time since 2003 (down 36 percent to \$ 125 billion). The decline of investment from Chinese MNEs was the result of policies clamping down on outward FDI, in reaction to significant capital outflows during 2015-16, mainly in industries such as real estate, hotels, cinemas, entertainments and sport clubs. The decline in China and Taiwan Province of China (down 36 percent to \$ 11 billion) offset gains in India (up 123 percent to \$ 11 billion) and Hong Kong, China (up 39 percent to \$83 billion).

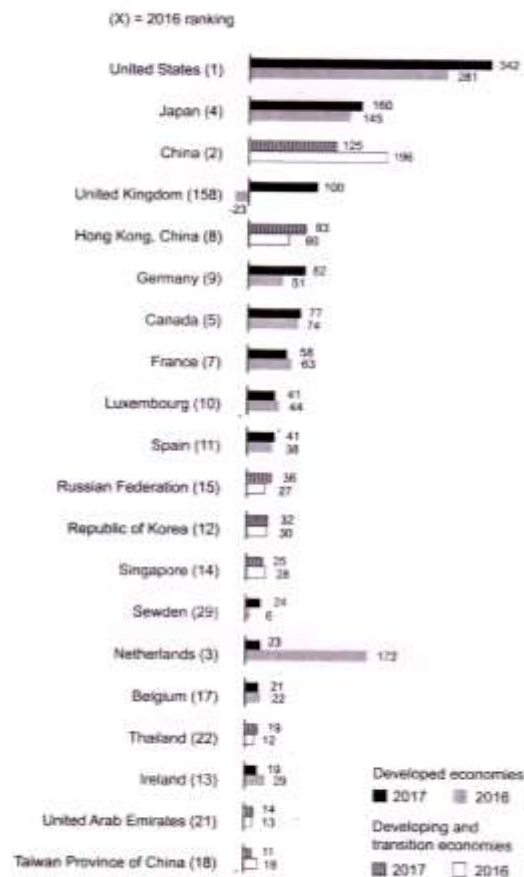
Outward FDI from Latin America and the Caribbean (excluding financial centres) rose by 86 percent to \$17.3 billion, as Latin American MNEs resumed their international investment activity. Yet

outflows remained significantly lower than before the commodity price slump. Outflows from Chile and Columbia – the region's largest outward investors in 2016 – declined by 18 percent in 2017, at \$ 5.1 billion and \$ 3.7 billion respectively. Are equity out flows dried up. Investment from Brazil remained negative at about – \$ 1.4 billion.

FDI outflows from Africa increased by 8 percent to \$ 12.1 billion. This largely reflected increased outward FDI by south African firm (up 64 percent to \$ 7.4 million) and Moroccan firm (up 66 percent to \$ 960 million). South African retailers continued to expand into Namibia, and standard Bank opened several new branches there.

In 2017, FDI outflows from economies in transition recovered by 59 percent, to \$ 40 billion, after being dragged down by recession in 2014–16. This level however, remains 47 percent below the high recorded in 2013 (\$ 76 billion). As in previous years, the bulk of investment from transition economies is by Russian MNEs. In 2017 their investment activity rose by 34 percent, mainly due to two large transactions – Rosnet acquired a 49 percent share in Essar Oil (India) for close to \$ 13 billion and a 30 percent stake in the offshore Zohr gas field in Egypt from the Italian firm Eni for \$ 1.1 billion.

FDI outflows, top 20 home economies,
2016 and 2017 (Billions of dollars)



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics)

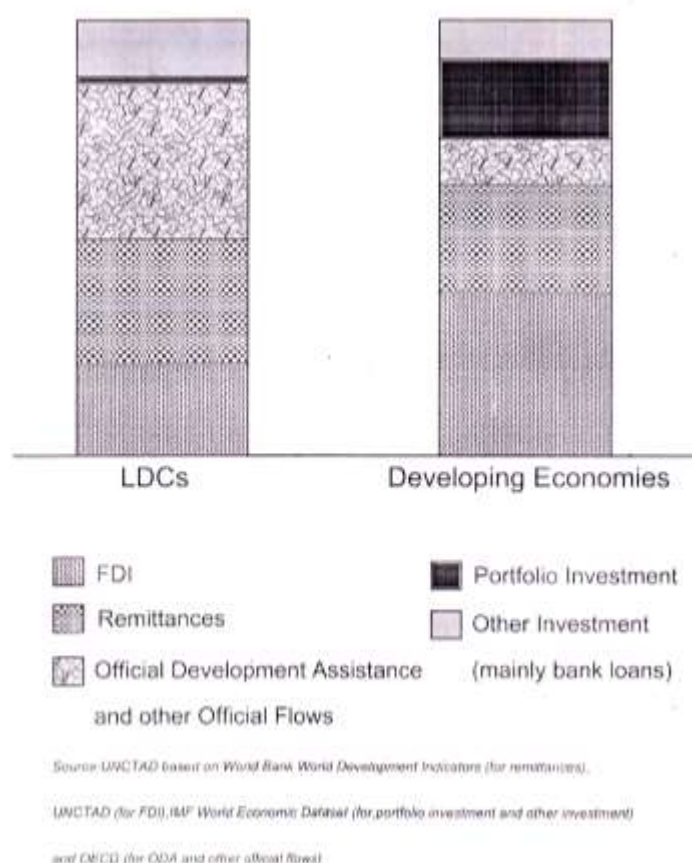
FDI as a component of financing for development :

Developing economies can draw on a range of external sources of finance, including FDI, portfolio equity, long term and short term loans (public and private), ODA, remittances and other official

flows. FDI has been the largest source of external finance for developing economies over the past decade, and the most resilient to economic and financial shocks.

On average, between 2013 and 2017, FDI accounted for 39 percent of external finance for developing economies.

Source of External Finance, Developing Economies and LDCs, 2013-2017 (Per Cent)



For the LDCs, however, ODA is the most significant sources of external finance, at 36 percent of external finance over the same period compared with 21 percent for FDI.

FDI also exhibits lower volatility than most other sources. Debt-related flows are susceptible to sudden stops and reversals. For example, the widespread retrenchment of European Banks' foreign lending in 2015 caused a drop in long-term loans to developing economies. Short term loans declined sharply in the same year, as Chinese firms repaid dollar debt and foreign investors reduced exposure to ren-minbi denominated assets. Portfolio equity flows account for a low share of external finance to developing economies, especially where capital markets are less developed. They are also less relatively unstable because of the speed at which positions can be unwound.

The growth of ODA has stagnated over the past decade. It amounts to about a quarter of FDI inflows to developing economies as a group. Preliminary data indicate that net ODA from members of the OECD Development Assistance Committee fell by 0.6 percent in 2017.

Remittances are becoming an increasingly important component of external finance for developing economies in general and in LDCs in particular. Remittance to developing economies are estimated to have risen by 8.5 percent in 2017, with notably strong upticks in Sub-Saharan African, Latin America and the Caribbean, and transition economies. Owing to higher economic growth in the United States and the European Union. Growth in remittances to South Asia is expected to be weaker because of low oil prices and the tightening of labour market policies in the Gulf Cooperation Council Countries.

Apart from Volatility, there are important differences between types of flows. First, FDI represents not only a source of funds, but also a package of tangible and intangible assets that can help build productive capacity in developing countries. From a host or recipient country's macro economic perspective, FDI and portfolio equity are relatively more expensive types of external finance (i.e. they typically require a higher rate of return), but returns are contingent on profits (i.e. on business success or successful implementation of projects). Short-term and long term debt is cheaper, but interest payments must be made with regularity, and the repayment of interest and principle is independent of profitability. ODA and remittances do not generally create a liability for the recipient-country. ODA is mainly used for direct budgetary support, as opposed to investment, but it can be spent on investment in projects related to the Sustainable Development Goals that might otherwise not be attractive to private sector investors. Remittances are predominantly spent on household consumption, with limited investment in productive assets although there is increasing evidence that remittances are used to finance small businesses.

FDI Prospects

Global FDI flows are projected to increase marginally, by about 5 percent in 2018, to \$ 1.5 trillion. This expectation is based on current forecasts for a number of macroeconomic indicators and firm - level factors.

Overall prospects assessment

The fragile growth of FDI flows expected for 2018 reflects an upswing in the global economy, strong aggregate demand, an acceleration in world trade and strong MNE profits (total profits, which may not reflect the profitability of overseas operations). The improving macroeconomic outlook has a direct positive effect on the capacity of MNEs to invest; business survey data indicates optimism about short term FDI prospects. Also, the expected increase in FDI inflows in 2018 is consistent with project data for the first quarter.

However, the expectation of an increase in global FDI is tempered by a series of risk factors. Geopolitical risks, growing trade tensions and concerns about a shift towards protectionist policies could have a negative impact on FDI in 2018. In addition, tax reforms in the United States are likely to significantly affect investment decisions by United States MNEs in 2018, with consequences for global investment patterns. Moreover, longer-term forecasts for macroeconomic variables contain important downsides, including the prospects of interest rate rises in developed economies with potentially serious implications for emerging market currencies and economic stability (IMF, 2018).

Projections (Table below) indicate the FDI flows could increase in developed and transition economies while remaining flat in developing economies as a group.

FDI inflows, projections, by group of economies and region 2015-2017, and projections, 2018
(Billions of dollars and percent)

Group of economies/region	2015	2016	2017	Projections
				2018
World	1,921	1,868	1,430	1,450 to 1,570
Developed economies	1,141	1,133	712	740 to 800
Europe	595	565	334	~ 380
North America	511	494	300	~ 320
Developing economies	744	670	671	640 to 690
Africa	57	53	42	~ 50
Asia	516	475	476	~ 470
Latin America and the Caribbean	169	140	151	~ 140
Transition economies	36	64	47	50 to 60
Memorandum : annual growth rate (per cent)				
World	44	- 3	- 23	(1 to 10)
Developed economies	91	- 1	- 37	(5 to 10)
Europe	117	- 5	- 41	~ 15
North America	96	- 3	- 39	~ 5
Developing economies	9	- 10	0	(- 5 to 5)
Africa	8	- 6	- 21	~ 20
Asia	12	- 8	0	~ 0
Latin America and the Caribbean	- 1	- 17	8	~ 5
Transition economies	- 36	78	-27	~ 20

Source : UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics)

Note : Percentages are rounded.

- FDI inflows to Africa are fore cast to increase by about 20 percent in 2018, to \$ 50 billion. The projection is underpinned by the expectation of a continued modest recovery in commodity prices and by macroeconomic fundamentals. In addition, advances in interregional cooperation, through the signing of the African Continental Free Trade Area (AfCFTA) could encourage stronger FDI flows in 2018. Yet Africa's commodity dependence will cause FDI to remain cyclical.
- FDI inflows to developing Asia are expected to remain stagnant, at about \$ 470 billion. Inflows to China could see continued growth as a result of recently announced liberalization plans. Other sources of growth could be increased intraregional FDI in ASEAN, in clouding to relatively low-income economies in the grouping, notably the CLMV countries. Investments from East Asia will also continue to be strong in these

countries. In West Asia, the evolution of oil prices, the efforts of oil rich countries to promote economic diversification, and political and geopolitical uncertainties will shape FDI inflows. If trade tensions should escalate and result in disruptions in GVCS, the subsequent effect on FDI would be more strongly felt in Asia.

- Prospects for FDI in Latin America and Caribbean in 2018 remain muted, as macroeconomic and policy uncertainties persist. Flows are forecast to decline marginally, to same \$ 140 billion. Economic prospects remain challenging. Uncertainty associated with upcoming elections in some of the largest economies in the region, and possible negative spillovers from interest rate rises in developed countries and international financial market disruptions might have an impact on FDI flows in 2018.
- FDI flows to transition economies are forecast to rise about 20 percent in 2018, to \$ 55 billion, supported by firming oil prices and the growing macro-stability of the Russian economy. However, they may be hindered by geopolitical risks.
- FDI flows to developed countries are projected to increase to about \$ 770 billion. Based on macroeconomic fundamentals, flows to Europe should increase by 15 percent and to North America by 5 percent. However, the repatriation of retained profits by United States MNEs as a result of tax reforms will have a dampening effect on FDI inflows in Europe, as will uncertainties arising from tensions in trade relations.

8.3.4 Case for and Against FDI in General

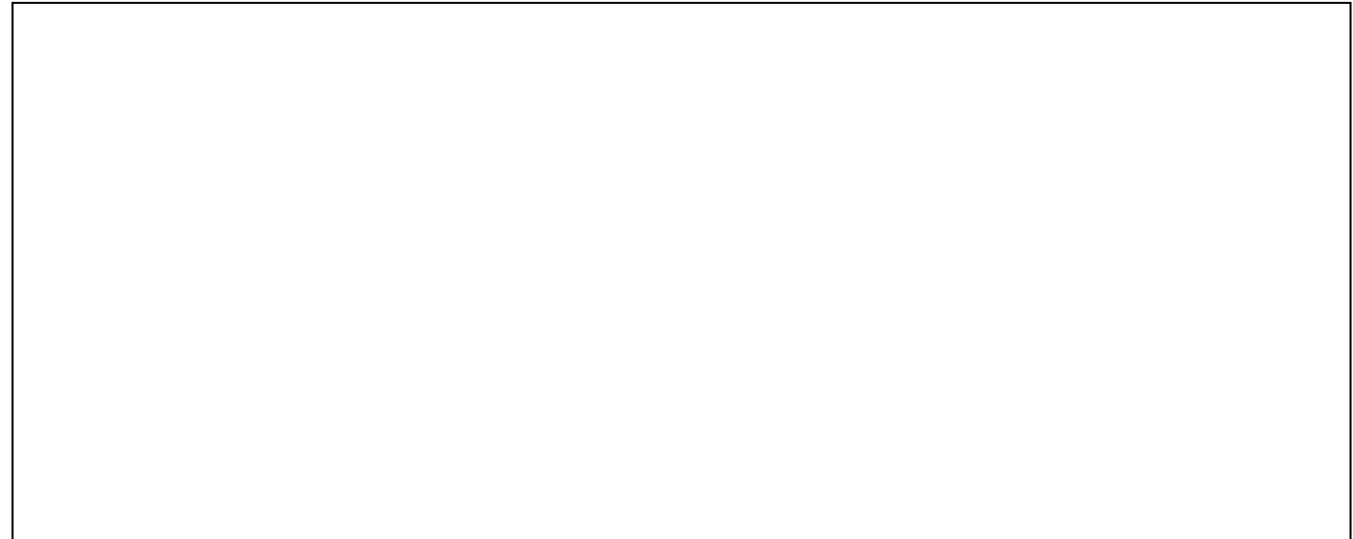
FDI brings many advantages to recipient countries, but there are also many potential dangers and disadvantages from the development point of view. Thirlwall (1999) summarized some of the advantages, (i) FDI raises the investment ratio above the domestic savings ratio, which is good for growth if nothing adverse happens to the productivity of the investment (ii) The investment brings with it knowledge, technology and management skills, which can have positive externalities on the rest of the economy, (iii) Foreign investment in the same or related fields. It requires the training of the labour, which is another positive externality. It is estimated that 20 million workers are employed directly or indirectly by MNCs in developing countries, (iv) A great deal of FDI goes into the tradeable goods sector of the recipient countries, which improves the export performance of these countries and earns them valuable foreign exchange. Research on the relation between FDI and the growth of the GDP reveals a positive one. But there is also evidence of bi-directional causality. While FDI affects growth positively at least above a certain threshold, but growth also affects FDI positively.¹⁵

As it has already been mentioned above that investment by multinational corporations with headquarters in, developed countries involves not only a transfer techniques of production, managerial and marketing expertise, products, advertising and business practices for the maximisation of global profits. But the question is whether such investment contributes to the broader aspects of development relating to the patterns of development and the distribution of Income.

Foreign direct investment according to Thirlwall (2005), has the potential disadvantage when compared with loan finance, that there may be an outflow of profits that lasts much longer than the outflow of debt service payments on a loan of equivalent amount. While a loan only creates obligations for a definite number of years, FDI may involve an unending commitment. This has serious implications for the balance of payments and for domestic resource utilizations. If foreign exchange is a scarce resource. In the long run, he says, if profits are repatriated the impact of continuous foreign direct

¹⁵ Ignacy Sachs "Searching for New Development Strategies". EPW, Vol., XXX No. 27, July 8, 1995

investment grows substantially from year to year. This, of course than increases the power and influence of the foreign interests within the country concerned.



8.4 MEANING OF MULTINATIONAL CORPORATIONS (MNCs)

An MNC is that which undertakes foreign direct investment i.e. It owns or controls income generation assets in more than one country, and in so doing produces goods or services outside the country of origin, i.e. engages in international production.

8.4.1 Characteristics of MNCs :- The MNCs are multi-process, multi-product and multi-national composite enterprises. Following are their main characteristics.

- **Giant Size :-** The assets and sales of MNCs run into billions of dollars and they also make supernormal profits. A study at the IMF reveals that MNCs have an estimated \$ 3.4 Trillion invested in about 4,49,000 foreign affiliates. According to the estimates by the Economists worlds top 300 MNCs now control over 25 per cent of the \$ 20 Trillion stocks of productive assets. No size, howsoever big, is perceived to be sufficient. And hence the MNCs keep on growing, even through the route of mergers and acquisitions. A recent example of this kind is Daimler Benz.
- **International Operations :-** In such a corporation control resides in the hands of a single institution. But its interests and operations sprawl across national boundaries. MNCs have become in effect 'global factories' searching for opportunities anywhere in the world. An MNC operates through a parent corporation in the home country it may assume the form of a branch or a subsidiary in the home country. If it is a branch, it acts for the parent corporation without any local capital or managements assistance. If it is subsidiary, the majority control is still exercised by the foreign parent company, although it is incorporated in the home country the foreign control may range any where between the minimum of 51 percent to the full 100 percent. An MNC thus combines ownership with control. The branches and subsidiaries of an MNC operate under the united control of the parent company.
- **Oligopolist Structure :-** Through the process of merger and takeover etc.; in course of time an MNC acquires awesome power. This coupled with its giant size makes it oligopolistic in character.

- **Spontaneous Evaluation :-** MNCs usually grow in a spontaneous and unconscious manner. Very often, they develop through 'creeping incrementalism'. Many firms have become international by accident. At times, firms have also established subsidiaries abroad due to wage differentials and better opportunities prevailing in the home country.
- **Collective Transfer of Resources :** - An MNC facilitates a multilateral transfer of resources. Usually this transfer takes place in the form of a 'package' which includes technical know how, equipments and machinery, raw materials, finished product, managerial services and so on MNCs are composed of a complex of widely varied modern technology ranging from production and marketing to management and finance.

8.4.2 Significance of Multinational Corporations

The MNCs have revolutionary effect on the international economic system. It is so because the growth of international transactions of the MNCs has affected the more traditional flows and international trade for many economies. Moreover, with the retreat of socialism, and failure of aid as an instrument of economic development, there has been a greater realization of the capacity of MNCs to deliver an efficient package of practices. In 1970s MNCs were characterised by alarmists as something of an evil monster-most like muggers on a dusk night waiting to pounce on the innocent passed by. MNCs were seen as perhaps, not serious objects of harm, not instruments for good. These attitudes have changed in the past few years.

With the increase of globalization, which is both cause and the effect of internationalization of world trade, MNC's have become dominant players in the global economy.

Although severely affected by the economic and financial crisis, and expected to fall from \$ 1.7 trillion of 2008 to below \$ 1.2 trillion in 2009, the FDI by MNCs have been paid great importance for high economic growth and strong economic performance in many parts of the world.

Table 7 : Snapshot of the largest 100 MNCs from world wide, 2006-07-08

Variable	2006	2007	2006-07 % change	2008	2007-08 % age change
Assets (\$ billion)					
Foreign	5245	6116	16.6	6094	-0.4
Total	9239	10702	15.8	10687	-0.1
Foreign as % of total	57	57	0.4	57	-0.1
sales (\$ billion)					
Foreign	4078	4936	21.0	5208	5.5
Total	7088	25078	14.0	8518	5.5
Foreign as % of total	58	61	3.6	61	0.0
Employment (thousands)					
Foreign	8582	8440	-166	8298	54
Total	15385	14870	-34	15302	2.9
Foreign as % of total	56	57	0.98	58	14

The growth of assets and sales figures of top 100 MNCs in 2007 slowed down in 2008 while employment numbers have been improved.

In 2014, the top 100 MNEs again increased their degree of internationalization after some years of decline. A series of big deals and mergers that were concluded during the year contributed to growth in foreign assets, while sales of domestic non-core assets led to decreases in total assets (e.g. Deutsche Telekom's sale of German e-commerce company 24 scout for roughly \$ 2 billion). A similar pattern is found for sales and employment, confirming MNEs expansion of operations abroad. The following table shows the assets, sales and employment of 100 MNEs.

Internationalization statistics of the 100 largest non-financial MNEs worldwide and from developing and transition economies (Billions of dollars, thousands of employees and percent)

Variable	100 largest MNEs worldwide					100 largest MNEs from developing and transition economies		
	I 2012	II 2013 ^a	III 2012-13 % change	IV 2014 ^b	V 2013-14 % change	VI 2012	VII 2013	VIII % change
Assets								
Foreign	7942	8249	3.9	8266	0.2	1506	1632	8.4
Domestic	5421	5759	6.2	5581	-.31	4025	4403	9.4
Total	13363	14008	4.8	13847	-1.1	5531	6034	9.1
Foreign as % of total	59	59	-0.5 ^c	60	0.8 ^c	27	27	-0.2 ^c
Sales								
Foreign	5885	6053	2.9	6132	1.3	1690	1806	6.8
Domestic	3072	3263	6.2	3101	-5.0	2172	2415	11.1
Total	8957	9316	4.0	9233	-0.9	3863	4221	9.3
Foreign as % total	66	65	-0.7 ^c	66	1.4 ^c	44	43	-1.0 ^c
Employment								
Foreign	9831	9562	-2.7	9599	0.4	4103	4226	3.0
Domestic	7106	7135	0.4	7211	1.1	6493	6688	3.0
Total	16937	16697	-1.4	16810	0.7	10596	10914	3.0
Foreign as % of total	58	57	-0.8 ^c	57	-0.2 ^c	39	39	0.0 ^c

For developing and transition economy MNEs growth rates of assets, sales and employment, both domestic and foreign, are higher than for their developed country counterparts.

The following table gives the position of top ten MNCs in the year 2008.

8.4.3 Largest Multinationals

In 2008 the top ten largest non financial multinational ranked by total foreign assets (million dollars) were

Ranking	Corporation	Home Economy	Foreign Assets	Total Asset
1	General Electric	United States	401290	797769
2	Royal Dutch Shell	Netherlands/UK	222324	282401
3	Vodafone Group	U.K.	201570	218955
4	BP	U.K.	188969	228238
5	Toyota Motors	Japan	169569	296249
6	Exxon Mobil	U.S.	161245	228052
7	Total Fine SA	France	141442	164662
8	E.on	Germany	141168	218573
9	Electrical de France	France	133698	278759
10	Arcelor Mittal	Woremburg	127127	133088

http://en.wikipedia.org/wiki/multinational_corporation.

Top ten MNCs in the world in 2013

A number of state owned MNEs continued to consolidate their global activities. For instance, GDF suez (France) the fifth largest SO-MNE in terms of foreign activities (foreign sales, assets, and employment, initiated a three year \$ 11 billion divestment programme in 2012 leading to significant sales of assets in Belgium, Italy and other countries. The following table gives the ranking of top ten non-financial state owned MNEs ranked by foreign assets in 2013.

The top 10 non-financial State-owned MNEs, ranked by foreign assets, 2013

(Millions of dollars and number of employees)

				Assets (\$ million)	Sales (\$ million)	Employment			Transatlanticity
SO-MNE	Home economy	Industry	Foreign	Total	Foreign	Total	Foreign	Total	Index
Volkswagen Group	Germany	Motor vehicles	176656	446555	72133	118561	73000	147199	50
Eni SpA	Italy	Petroleum	141021	190125	211488	261560	317800	572800	70
Enel SpA	Italy	Utilities (electricity, gas and water)	140396	226006	109886	152313	56509	83887	67

EDF SA	France	Utilities (electricity, gas and water)	130161	353674	61867	106294	37125	71394	49
GDF Suez	France	Utilities (electricity, gas and water)	121402	219759	46978	100364	28975	158467	40
Deutsche Telecom AG	Germany	Telecommunications	120350	162671	50049	79835	111953	228596	62
CITIC Group	China	Diversified	97739	703666	11127	60586	25285	125215	17
Statoil ASA	Norway	Petroleum	78185	144741	23953	105446	3077	23413	30
Airbus Group NV	France	Aircraft	77614	128474	72525	78672	89551	144061	72
General Motors Co	United States	Motor vehicles	70074	166344	56900	155427	104000	219000	42

Source: UNCTAD, cross-border M&A database for M&As and information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com) for Greenfield projects.

*The Transnationality Index is calculated as the average of the following three ratios: foreign sales to total sales and foreign employment to total employment.

Note: These MNEs are at least 10 per cent owned by the State or public entities, or the State/public entity is the largest shareholder.

A number of other large state owned MNEs from developed countries undertook similar divestment programmes. Policy factors have also negatively affected the internationalization of SO-MNEs. For instance, stricter control of foreign ownership in extractive industries has reduced the access of SO-MNEs to mineral assets in a number of countries, for example, in Latin America. From the home country perspective, some govt. policy measures have also affected the degree of international investment of SO-MNEs.

8.4.4 The Case for Multinational Corporations in Developing Economies

Developing countries do not have a sufficient degree of 'linkage' with other industries. The MNCs usually produce 'linkage effects' in the host country, such linkages may be either backward or forward. Then MNCs help to build up 'knowledge base' and thus serve the development of human resources. They serve as carriers of knowledge and experience. This helps to raise productivity. It is also said that operations of MNCs have a favourable effect on the balance of payments of the host country the process of digital rising information has resulted in distance ceasing to be a barrier to competition. Global firms therefore, adopt sophisticated research to reach the influence consumers. As 'global scanners' they possess a global marketing organization through which they can promote exports from the developing countries. In a situation, where a country is already faced with a heavy debt servicing problem, further borrowing by it may only push it into what may be called the 'debt trap'. So private investment through MNCs will help it get necessary foreign exchange resources, whereas it will help avoid adding to the debt-servicing burden.

8.4.5 The Case Against Multinational Corporation

The activities of multinationals come under attack due to various reasons. It is generally argued that although MNCs provide capital, they may lower domestic savings and investment rates by stifling

competition through exclusive production agreements with host government, failing to reinvest much of their profits, generating domestic incomes for groups with lower saving propensities, inhibiting the expansion of indigenous firms that might supply them with intermediate products by instead importing them from overseas affiliates, and imposing high interest costs on capital borrowed by host government.

Multinational corporations, while introducing their package of capital, managerial skill and technology are generally guided by two basic factors: (i) the maximum of profit with growth and (ii) the programme of integrated production and market strategy. In order to achieve their objective of profit with growth the multinationals do not hesitate to change from one line of activity to another or diversify the area of operation such as inclusion of services within the fore of operation which may be detrimental to the announced programme of balanced regional development of the host government. In this way they can lead to haphazard and unbalanced development.

Multinationals, it is argued, typically produce inappropriate products (which are demanded by a small, rich minority), stimulate inappropriate consumption patterns through advertising and their monopolistic, market power and do this all with inappropriate (capital-intensive) technologies of production. This is perhaps the major criticism of MNCs in light of the growing employment problems of the developing nations. As a result of above stated two points, local resources tend to be allocated for socially undesirable projects. This ultimately leads to inequality.

MNCs bring in their own technology which is usually capital intensive and hence more suitable to advanced parent countries. They make no effort to adopt an appropriate technology suitable to the needs, circumstances and environment of the host country. Charges of what may be called 'technological dumping' are also being levelled against MNCs, implying that MNCs use obsolete technology with the help of turnkey projects shipped down from the principals of other countries. MNCs strive to make industry permanently dependent on overseas expertise and technology. Moreover the transfer of technology proves extremely costly. The MNCs charge exorbitantly in the form of fee, royalty and other charges, which put a severe drain on the foreign exchange resources of the developing economy. They are also being accused of creating a major brain drain in the country, for they whisk away the top skilled man power available in the country.

Multinationals, it is generally argued, use their economic power to influence government policies in directions unfavourable to development. They are able to extract sizeable economic and political concessions from competing rebates, investment allowances, and the cheap provision of factory sites and essential social services. As a result, sometimes the private profits of MNCs may exceed social benefits. Then, a MNC can avoid much local taxation in high tax countries and shift profits to affiliates in low-tax countries by artificially inflating the price it pays for intermediate products purchased from overseas affiliates so as to lower its stated local profits. This phenomenon, known as 'transfer pricing' is a common practice of MNCs and one over which host governments can exert little control as long as corporate tax rates differ from one country to another.

It is rightly observed that MNCs shy away from investment in infrastructure sector. A recent wharton school study cites a survey of 1,500 MNCs that showed that 84 percent of operations initiated in infrastructure sector during the last three years failed to meet their financial targets.

One of the most popular myths is that MNCs welcome competition and free markets. But the fact is that given the choice, they do not. They tolerate competition because they do not have a choice

in a free market, otherwise they prefer to destroy all competition and monopolise the market e.g. Microsoft, which is constantly accused of trying to do so in capitals.¹⁶

Once financial liberalisations are in place and quickly make a developing country bend to its will by destabilising, for example, the currency market and forcing devaluations or withdrawing support to government bonds and endangering the continuance of the East India company syndrome.¹⁷

In developing countries, multinationals can have an impact on international relations by contributing towards placing countries in interdependent or dependent positions from which governments may find it difficult to extricate themselves except at considerable cost. According to Todaro (1983), this results from the fact that the operations of the multinational corporations are controlled from outside the territory of the host country, and that their policies are based on considerations which transcend those of host as well as the home countries. Sometimes the reluctance of governments, to pursue policies in respect of multinational corporations that would be desirable from their national point of view may be due to their concern about the repercussions which may result from the reactions of home governments. According to him, the political aspect of the host country multinational corporations relationship is assuming greater significance as multinational corporations continue to expand, as national independence in many countries has lent immediacy to the issue of sovereignty over natural resources and key industries, and as episodes of disguised or overt political interference have come to light.

Another source of tension lies in the introduction by multinational corporations of foreign cultural values and the dilution of host country's heritage. For instance the introduction machine made goods may contribute to net output but only at the expense of displacing handicraft products. Although this is a common phenomenon in the process of modernization, caused also by domestic enterprises, the outing of local products by the output of multinational corporations and the displacement of indigenous entrepreneurs by foreigners are highly visible and much resented.

In many developing host countries, the suspicion is often expressed that the multinational corporations serve as an alien agent to extend "imperialistic" domination and to perpetuate politico-economic dependence. Even in developed host countries, foreign control of key sectors by MNCs is regarded in many quarters as a serious infringement upon political independence and even sovereignty itself. In spite of such strong reservations, however, the majority of government of host countries have, on the whole, encouraged foreign direct investment through MNCs. In encouraging the entry of MNCs, host governments seem to look upon their contribution as positive, although at the same time, they tacitly attempt to obtain an acceptable trade off between political, economic and socio-cultural costs and benefits.

Todaro (2005) attempts to summarize the debate about multinationals in terms of seven key issues (given in the table below) and a range of questions that surrounded each of them.

TABLE : Seven Key Disputed Issues About the Role and Impact of Multinational Corporations in Developing Countries

	Key Issue		Sources of Dispute
1.	International capital movements (income	a.	Do they bring in much capital (savings) ?

¹⁶ WJ. Hensz and BA. Zelner: How Political Risk Affects Infrastructure investment: Wharton school 1999, Quoted in i.e. Dhingra (2001). India's Economy Sultan chand and Sons, New Delhi

¹⁷ The East Indian company syndrome refer to the fear that foreigners are likely, if given an opening, to take control of a company, the economy or country. For details, see Baldev Raj Nayar, Business and india's Economic Policy Reforms EPW, vol. XXXIII No 38. Sept. 25 1998.

	flows and balance of payments)		
		b.	Do they improve the balance of payments?
		c.	Do they remit "excessive" profits ?
		d.	Do they employ transfer pricing and disguise capital outflows ?
		e.	Do they establish few linkages to the local economy ?
		f.	Do they generate significant tax revenues ?
2.	Displacement of indigenous production	a.	Do they buyout existing import competing industries ?
		b.	Do they use their competitive advantages of drive local competitors out of business ?
3.	Extent of technology transfer	a.	Do they keep all R&D in home countries?
		b.	Do they retain monopoly power over their technology ?
4.	Appropriateness of technology transfer	a.	Do they use only capital-intensive technologies ?
		b.	Do they adapt technology to local factor endowments or leave it unchanged ?
5.	Patterns of consumption	a.	Do they encourage inappropriate patterns of consumption through elite orientation, advertising, and superior marketing techniques.
		b.	Do they increase consumption of their products at the expense of other (perhaps more needed) goods ?
6.	Social structure and stratification	a.	Do they develop allied local groups through higher wage payments, hiring (displacing) the best of the local entrepreneurs, and fostering elite loyalty and socialization through pressures for conformity ?
		b.	Do they foster alien values, images, and life-styles incompatible with local custom and beliefs ?
7.	Income distribution and dualistic development	a.	Do they contribute to the widening gap development between rich and poor ?
		b.	Do they exacerbate urban bias and widen urban-rural differentials ?

Hence, in view of the fact that MNCs do possess a potential that can be gainfully exploited, most of the developing economies have chosen to regulate their activities rather than to dispense with them altogether.

- Threat of nationalisation is an effective tool of regulation. Although nationalization should be resorted to in extreme situations, the very fact that it can be exercised makes the corporations act in a disciplined manner.
- The government may allow collaborations in certain selected industries or certain selected regions where the operation of MNCs is felt highly suitable. Then MNCs may be allowed to invest for specific periods. After the expiry of this period, restrictions may be imposed on foreign holdings, or there may be provision for gradual disinvestment.
- A multi-tax system may be introduced by the govt, and MNCs may be taxed at a higher rate. Then export criteria may also be laid down by the host country.
- Large domestic market can be used as sweetener, to get new technology in areas such as agriculture, bio-technology, infrastructure and export-oriented industries which would be of more lasting benefits to host country than soaps and detergents etc.
- MNCs may be asked to carry out a minimum fixed share of their total research and development activities within the host country.

By adopting these measures, and by laying down very clearly the conditions under which they will accept MNCs investments, they can monitor the companies or corporation', operations so that distorted development and exploitation is avoided.



8.5 PRIVATE CAPITAL TRANSFERRED THROUGH COMMERCIAL BANKS : Comprising direct investment and portfolio capital, private financial resources of developed countries flow into foreign countries through the agencies of commercial banks and other financial institutions. These credit flows, are of medium and short term nature. External assistance of this type may be classified in three (i) participation of commercial banks in the loans of the international bank and of the Export import bank of U.S.A. (ii) export credits granted to foreign buyers by the commercial bank mostly under govt. guarantees; and (iii) direct investment by commercial bank in foreign enterprises.

Commercial banks in some of the advanced countries of the world make foreign loans through participation in the loans of the International Bank of Reconstruction and Development. Export credits granted by manufactures of capital goods in the industrial countries to importers in low income

countries constitute another means for the outflow of private capital. Such export credits are insured in most cases by the governments of the capital exporting countries.

Commercial banks have also separately, or in national and international syndicates, financed capital projects in developing countries. All these commercial banks have undoubtedly added to the financial help which the underdeveloped countries badly need from high income countries for carrying out their development plans.

8.6 SUMMARY

In the lesson, we have studied different types of foreign investment including foreign direct investment and investment made by multinational corporations. So far as FDI is concerned, we have seen that there are three types of FDI i.e. Market seeking, efficiency-seeking and other locational advantages. Emerging trends of FDI show that recently FDI Flows to developing countries have risen by 10%. China emerged as the world's largest recipient of FDI in the first half of 2012. Role of Multinational corporations in economic development has also been discussed in the lesson. We have seen that there are five major characteristics of MNCs Viz (i) Giant Size (ii) International operations (iii) oligopolistic structure (iv) spontaneous evaluation and (v) collective Transfer of Resource. It can also be concluded that comprising direct investment and portfolio investment, private financial resources of developed countries flow into foreign countries through the agencies of commercial banks also.

8.7 GLOSSARY

- Portfolio Investment – In economics, foreign portfolio investment is the entry of funds into a country where foreigners deposit money in a country's bank or make purchases in the country's stock and bond markets, sometimes for speculation
- Foreign Direct Investment – This is an investment made by a company or individual in one country in business interest in another country, in the form of either establishing business operations or acquiring business assets in the other country, such as ownership or controlling interest in a foreign company.
- Sovereign Wealth Fund (SWF) – It is the state owned investment fund that invests in real and financial assets such as stocks, bonds, real estate, precious metals, or in alternative investments such as private equity fund or hedge funds. Sovereign wealth funds invest globally.
- Private Equity – It is the capital that is not noted on a public exchange. It is composed of funds and investors that directly invest in private companies. It is also called management investment fund.
- Multinational Company – It is a corporation or a company which has facilities and other assets in at least one country other than its home country. Such companies have offices or factories in different countries and usually have a centralized head office where they coordinate global management.

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8.10 MODEL QUESTIONS

- Q1. What do you mean by Private Portfolio Investment?
- Q2. How would you explain the term FDI?
- Q3. Explain the recent trends in Foreign Direct Investment.
- Q4. Discuss critically the role of MNCs in developing countries.

FOREIGN AID AND ECONOMIC DEVELOPMENT

Structure

- 9.0 Objectives
- 9.1 Introduction
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9.0 OBJECTIVES

After going through the lesson, you will be able to:

- define the term foreign aid
- outline the necessity for Foreign Aid
- explain the meaning of Official Development Assistance and the trends in it.
- discuss the role of multilateral assistance
- describe the importance of Foreign aid in economic development

9.1 INTRODUCTION

In the last lesson, we studied about one aspect of foreign financing i.e. foreign investment and its role in economic development. We also studied their respective advantages and potential dangers. In the present lesson, we will study the other aspect of foreign financing i.e. foreign aid. In the present scenario of globalisation and economic integration, most of the countries have to depend upon each other for financing economic development. In addition to foreign investment, foreign aid also plays a pivotal role in financing economic development projects. This lesson deals with meaning, rationale, types etc of foreign aid.

The concept of foreign aid (accepted as a flow of financial resources from developed countries to developing countries) has been subjected to considerable semantic jugglery. One extreme definition includes in its orbit anything benefiting the recipient country and this includes the flow of private investment and services. On the other hand, a narrow interpretation takes into account only government grants and loans for economic purposes only. Then loss of real resources suffered by the donor countries is covered by yet another definition.

9.2 MEANING OF FOREIGN AID.

In general Foreign aid refers to transfer of real resources from governments or public institutions of the richer countries to governments of less developed countries (LDCs) in the third world. The flows of foreign resources can be of many types and it is therefore important to know the different elements. Foreign capital flows are generally divided into two broad streams – official and private. The official capital flows are subdivided into bilateral and multilateral flows. Official bilateral flows consist of capital provided by the govt. of donor to govt. of recipient countries. Multilateral flows consist of capital flows from multilateral organisations such as World Bank, the United Nations, the IMF. Both types of the official flow can take the form of grants, loans or grants-like contributions.

Private flows represent normal commercial transactions, prompted by commercial considerations of profits and rates of return, and therefore should not be viewed as aid to the LDCs. Commercial flows of private capital are not a form of foreign assistance, even though they may benefit the developing country in which they take place.

Economists have defined foreign aid, therefore, as any flow of capital to LDCs that meets two criteria, (i) Its objectives should be non-commercial from the point of view of the donor and (ii) It should be characterised by concessional terms, i.e. the interest rate and repayment period for borrowed capital should be softer than commercial terms. According to Todaro (2011)², even this definition could be inappropriate, because it could include military aid, which is both non-commercial and concessional. Normally, however, military aid is excluded from international economic measurements of foreign-aid flows. The concept of foreign aid that is now widely used and accepted, therefore, is one that encompasses all official grants and concessional loans, in currency or kind, that are broadly aimed at transferring resources from developed to developing countries on development, poverty or income distribution grounds.

Development Assistance Committee (DAC) defines foreign aid as official development assistance (ODA) and technical aid. The term excludes military assistance. ODA flows must satisfy all three of the following criteria :

- Their primary objective must be developmental, thus it excludes military and private investment.
- They must be concessional i.e. the terms and conditions of the financial package must be softer than those available on a commercial basis. DAC defines as DDA official flows with a grant element of greater than 25% at a 10% discount rate.
- The flows should come from governmental agencies and go to developing country governments.

Hence Official Development Finance comprises ODA plus international flows satisfying only the first and third criteria. Flows from voluntary agencies may also be counted as aid, but do not satisfy the third criterion.

9.3 RATIONALE FOR FOREIGN AID

Economic development involves the increased utilisation of resources for investment purposes; it also requires expanding the supply of consumption goods in order to meet the growing demand for such goods as national income rises. To a large extent the supply of both investment and consumption

goods comes out of domestic resources. But normally as an economy develops, it has to import from foreign countries some investment goods like machines, plants and other capital equipment and also certain consumption goods which it cannot produce out of its own resources to the extent they are required at home. To pay for these imports, the country has to earn enough foreign exchange through its exports. If foreign exchange requirements are greater than the value of transports it means that there is a gap between foreign exchange needs and foreign exchange earnings and this gap is closed by the borrowing of foreign exchange. Thus external resources are earned or borrowed or obtained free in the form of grants or aid. When we talk of external capital used for-domestic capital formation or for promoting economic growth, we have in mind primarily the foreign borrowed capital and also external aid grants.

External capital is required to finance the procurement of real resources from foreign countries. It is clear that even if internal resources are adequate to cover the cost of both the domestic and external components of a programme of development, external assistance becomes necessary in so far as the mobilization of a given amount of financial resources in a country does not guarantee the releasing of an equivalent amount of foreign exchange that is required to carry through an investment programme. Collections through taxation, borrowing and inflation do represent savings of the community which can and are used for investment. As a result of this activity, the community is deprived of a certain amount of real resources which it could have otherwise disposed off. The major part of the financial resources mobilized in this manner might have been utilized for consumption domestic goods and services and a smaller pan for the purchasing of external goods and services. Thus of the total amount of financial resources collected by state, that part alone which could have been used for procuring of foreign goods presents the additional foreign exchange acquired by the state. It is thus obvious that if the foreign exchange requirements exceed this amount, other methods would have to be adopted for example, external borrowings or utilization of past foreign savings in order to acquire the needed foreign exchange.

In reality, the domestic savings available in low income countries are meagre and what is collected by the state through taxation and internal borrowing are insufficient to meet the investment requirements. In such a situation, an underdeveloped country can be freed from the vicious circle, of low income, low saving and low productivity only with the help of resources from outside. These resources are transferred in the form of imports and constitute therefore a direct addition to the available real resources of the less developed country. The use of foreign capital in economic development therefore implies primarily-the supplementing of domestic resources represents for investment by external resources. In theory, such a movement of resources represents a transfer of capital from where its marginal efficiency is low, to where it is high and contributes in this manner to a decrease in the inequality of international living, standards.

In addition to providing foreign exchange directly for financing the imports of capital equipment and also of consumption goods, external capital helps in accelerating the pace of economic progress in many ways. In an underdeveloped country, which is incapable of earning sufficient foreign exchange through its external trade, external assistance by making available foreign exchange enable the starting of the projects which could not have been undertaken. It is likely that in the absence of such facilities an underdeveloped country would have given high priority to projects requiring little foreign exchange of which would be capable of earning large foreign exchange, but which may not be essential from the national economic point of view or help in promoting domestic economic growth. Foreign capital facilitates the mobilization of domestic resources and make it possible to start highly capital-intensive programmes of development, as for instance, the Aswm Dam in Egypt, which the low income countries

left to their own resources would be incapable of achieving. It ensures the speeding up of capital formation which is often necessary because of political and economic reasons quite likely... the authorities of a country may shy away from costly schemes if external capital is not available and if domestic resources alone are not sufficient to ensure the quick execution of the work. Moreover, from the economic point of view, some schemes have necessarily to be undertaken in a big way, involving large expenditure, on a series of complementary investments which have to be taken up simultaneously, or the presence of a rapid growth of population may, necessitate a high speed of development test. A slower tempo of development fails to make any impression in the matter of per capital incomes. It may also be added that through foreign financing it would be possible to give capital formation a longer time range. If the inflow of foreign capital is steady and assured then economy can plan for a number of years and undertake schedules of development which would take a long period of time for completion.

Secondly, the employment of external capital for economic development reduces the strain of the domestic economy which normally an acceleration of investment would cause. Primarily, the burden of economic development in the initial stages in the form of reduced consumption; for obvious reasons in a low income country, any attempt to augment the resources for investment would impinge upon consumption levels. But the influx of foreign capital helps to maintain consumption at higher levels than would otherwise be possible. In a country where the standard of consumption is already very low the fact that foreign resources would help in maintaining or even raising the levels of consumption in the "early stages of growth, is of considerable significance. This may be necessary to ensure social good will, but higher levels of consumption may also add to the economic efficiency of the community and thereby facilitate increased production. In such a case, the expenditure on increasing the supply of consumption goods may be even considered as a form of investment. Moreover, utilization of foreign capital for augmenting the domestic supply of consumption goods through increased imports, contributes to maintaining a certain fairness in the distribution of the burden of development between different generations. To the extent, repayment of foreign obligations at a future point of time and the payment of interest charges would necessitate additional taxation, it would be possible to make future generations bear part of the strain of capital formation and economic development.

9.4 FACTORS DETERMINING THE MAGNITUDE OR QUANTUM OF FOREIGN AID

The magnitude of foreign aid may be decided on the basis of borrowing country's productive requirement or by unproductive requirement or by both. If foreign aid is used for unproductive consumption, the rate of development is bound to be hampered. But this danger may be avoided, if foreign assistance is made conditional. The aid giving authority may impose condition that foreign aid has to be used only for productive purposes. The limitation imposed by wastage, demonstration effect and psychology of dependence has to be tackled by the deliberate efforts on the part of both the aiding and aided countries; especially the latter have to take larger responsibility to counter the limitation.

Another condition is the will and desire of the people to effectively use foreign capital in the country's economic development. If public will, initiative and enterprise are lacking, foreign capital does not become helpful, therefore, along with foreign aid, public enthusiasm has to be developed.

Repayment capacity of the borrowing country is another very important condition for foreign aid. Burden of debt servicing often acts as a barrier to the inflow of funds to poor countries. In the short run, the capacity to repay is dependent on the capacity to generate surplus or foreign exchange earnings. If export surplus foreign exchange earnings is high, repayment capacity also becomes high. In the long run, capacity to repayment is determined by the loan contribution to the addition of productivity in the economy. If the loan is used in an optimum possible productive manner, a country's repayment capacity can be considerably increased.

Another important condition is the capacity to absorb foreign capital foreign capital must be quickly absorbed in productive programmes. If complementary resources are in efficient and the speed of development is very low absorptive capacity becomes limited. According to Higgins, absorptive capacity can be increased by better techniques, better utilisation of excess capacity well constructed development plan, private and public initiative and enterprise, and by a flexible social system which is dedicated to transform the economy from the stagnant traditional set-up to a highly industrial stage.

9.5 OFFICIAL DEVELOPMENT ASSISTANCE-TRENDS

The money volumes of official development assistance (ODA), which includes bilateral grants, loans and technical assistance as well as multilateral flows, has grown from an annual rate of under \$ 5 billion in 1960 to over \$ 100 billion in 2005. Throughout the 1990s, ODA declined from a “high” of a 0.33% of total DAC aid in 1990 to a low of 0.22 % in 1997 despite the commitment in the 1970s to the 0.7 percent aid target and it only started rising since 2001. Between 2001 and 2004, there was a continuous rise in aid, but much of it was due to the geo-strategic concerns of the donor countries such as fighting terrorism. The percentage of developed country GNI allocated official development assistance also increased from 0.23% in 2002 to 0.33 % by 2005. Increase in 2005 was largely due to enormous debt relief for Iraq and Nigeria etc. The total flow of ODA from the DAC countries in 2007 was \$ 103 billion, of which approximately \$ 7.5 billion consisted of grants, including \$ 15 billion for technical assistance. \$ 30 billion was disbursed by multilateral institutions. In 2009, the OECD and many others feared that official aid would decline due to the global financial crisis. They urged donors nations to make aid ‘countercyclical’ and not to reduce it when it is needed most by those who did not cause the crisis. And indeed, for 2009, aid did increase as official statistics from OECD shows. It rose to 0.7% increase from just under \$ 123 billion in 2008 to just over \$ 123 billion in 2009 (at constant 2008 prices). However OECD noted a 6.5% increase in ODA in 2010 over the previous year to \$ 129 billion as shown in the table below.

Table : ODA from Total DAC Countries

Net ODA	Year		Change
	2016	2017	2016/2017 (%)
Current (USD million)	144,920.6	147,160.3	1.5
Constant USD million in 2016	144,920.6	144,707.3	−0.1
ODA/GNI (%)	0.32	0.31	
Bilateral Share (%)	71	72	

The ratio of ODA/GNI is still averaged only at 0.32% of the combined GNI of donor countries—less than half of what had been promised long ago. But they also washed about worrying trends for the future; donor countries are expecting to reduce the rate of increased official aid. The OECD also noted that due to continued failure to meet pledged aid in recent years (although some nations have met these pledges), a code of good pledging practice was to be drawn up, which might be a first step towards better donor accountability.

The recent record of individual DAC countries as provides of ODA is shown in the table ---below together with the flow measured as a proportion of the donor’s GNI. It can be seen that only the Netherlands, Denmark, Norway, Luxembourg and Sweden met the aid target of 0.7 percent of the GNI.

Although the United States remains the largest donor in absolute terms, relative to others, but provides quite a low percentage of GNI-0.20% in 2011 compared to an average of 0.31% for all DAC donor countries and well below the internationally agreed United Nations target of 0.70%.

Net Official Development Assistance by DAC Countries
(Net disbursement at current prices and exchange rates)

Country	ODA											
	US \$ Million						% of GNI					
	2008	2009	2010	2011	2014	2017	2008	2009	2010	2011	2014	2017
Australia	2954	2762	3826	4983	4380	3036	0.32	0.29	0.32	0.34	0.31	0.23
Austria	1714	1142	1208	1111	1230	1251	0.43	0.30	0.32	0.27	0.28	0.30
Belgium	2386	2610	3004	2807	2450	2196	0.48	0.55	0.64	0.54	0.46	0.45
Canada	4795	4000	5209	5457	4240	4305	0.33	0.33	0.34	0.32	0.24	0.26
Denmark	2803	2810	2871	2931	3000	2448	0.82	0.88	0.91	0.85	0.86	0.74
Finland	1166	1290	1333	1406	1630	1084	0.44	0.54	0.55	0.53	0.60	0.42
France	10908	12602	12915	12997	10620	11331	0.39	0.47	0.50	0.46	0.37	0.43
Germany	13981	12079	12985	14093	16570	25005	0.38	0.35	0.39	0.39	0.42	0.67
Greece	703	607	508	425	250	314	0.21	0.19	0.17	0.15	0.11	0.16
Ireland	1328	1006	895	914	820	838	0.59	0.54	0.52	0.51	0.38	0.32
Italy	4861	3297	2996	4326	4010	5858	0.22	0.16	0.15	0.20	0.19	0.30
Japan	9601	9467	11021	10831	9270	11463	0.19	0.18	0.20	0.18	0.19	0.23
Korea	802	816	1174	1328	1860	2201	0.09	0.10	0.12	0.12	0.13	0.14
Luxembourg	415	415	403	409	420	424	0.97	1.04	1.05	0.97	1.06	1.00
Netherlands	6993	6426	6357	6344	5570	4958	0.80	0.82	0.81	0.75	0.64	0.60
New Zealand	348	309	342	424	510	450	0.30	0.28	0.26	0.28	0.27	0.23
Norway	4006	4081	4580	4934	5090	4125	0.89	1.06	1.10	1.00	1.00	0.99
Portugal	620	513	649	708	430	381	0.27	0.23	0.29	0.31	0.19	0.18
Spain	6867	6584	5949	4173	1860	2560	0.45	0.46	0.43	0.29	0.13	0.19
Sweden	4732	4548	4533	5603	6230	5563	0.98	1.12	0.97	1.02	1.09	1.02
Switzerland	2038	2310	2300	3076	3520	3188	0.44	0.45	0.40	0.45	0.50	0.46
United Kingdom	11500	11283	13050	13832	19310	18103	0.43	0.51	0.57	0.56	0.70	0.70
United States	26437	28831	30353	30924	33100	34732	0.18	0.21	0.21	0.20	0.19	0.18

Source – OECD (2012). Aid Statistics, WDI, 2016, 2018

Not only is the United States' ODA-to-GNI ratio quite low among the DAC donors but it has also declined sharply from its level of 0.31% in 1970 to 0.20 in 2011.

In 2012, the OECD noted an almost 3% decline in aid over 2010's aid-the first decline a while. Although this decline was expected at some point because of the financial problems in most wealthy nations, and those same problems are rippling to the poorest nations, so a drop in aid is significant for them. It would also not be surprising if aid declines or stays stagnant for a while, as the things like global financial problems not only take a while to ripple through, but of course take a while to overcome.

More interesting than the total amount of aid is the way in which it is distributed. ODA is allocated in some strange and arbitrary ways. (HDR, 1992 p. 44-45). The following table shows the distribution of ODA in different regions.

Table : Official Development Assistance (ODA) by Region, 2011 & 2014

Region	ODA Per Capita (U.S. \$)	ODA as share of GNI		
		2014	(%) 2011	(%) 2014
East Asia and Pacific	5	4	0.1	0.0
Europe and Central Asia	20	11	0.2	0.0
Latin America and Caribbean	16	16	0.2	0.2
Middle East and North Africa	41	78	0.9	0.9
South Asia	9	9	5.7	0.6
Sub-Saharan Africa	54	48	4.3	2.7

Source : OECD (2012), WDI (2016)

It can be seen that South Asia, where nearly 50% of the World's poorest live, receives \$ 9 per capital aid. The Middle East and North Africa, with well over triple South Asia's per capita income, received more than fair times the per capita aid.

9.6 MULTILATERAL ASSISTANCE

The major source of multilateral assistance to developing countries are the world bank (the International Bank for Reconstruction and Development, IBRD) and its two affiliates, the International Development Association (IDA) and the International Finance Corporation (IFC), as well as the United Nations and Various regional development banks. The total disbursements in 2011 was \$ 86 b. of which \$ 42 b. was on concessional terms. The following table gives the detailed breakdown of the lending by various multilateral agencies from 2007 to 2011.

Table : Concessional and non-concessional flows by multilateral organisations, (USD million, at current prices and exchange rates)

	Gross Disbursements						
	2007	2008	2009	2010	2011	2014	2017
Concessional Flows							
International Financial Institutions							
AFDB	1822	1932	3175	2503	2355	2148	2681
ASDB	1768	2331	2790	1930	1940	2798	2558
Caribbean Dev. Bank	59	83	85	75	72	113	30
EBRD	8	7	-	-	-	-	-
IDA	10829	9291	12793	12123	11703	13759	13976

		188					
IDB (Special Fund)	4452	552	1025	1204	1710	1938	1350
IMF	521	1038	2605	2973	1455	832	1211
Nordic Dev. Fund	74	104	76	65	70	50	43
Total IFIs	19534	15339	22549	20874	19304	21638	21849
United Nations							
IFAD	461	491	399	520	627	538	686
UNAIDS	193	209	243	246	265	239	165
UNDP	439	495	631	613	493	463	352
UNFPA	218	275	348	316	315	340	215
UNHCR	257	278	301	393	441	480	522
UNICEF	982	987	1104	1050	1104	1342	1524
UNRWA	388	473	473	545	608	680	893
UNTA	462	645	-	-	-	-	-
WEP	233	317	293	244	345	309	286
WHO	-	-	437	366	452	471	533
Total UN	3715	4291	4348	4443	4798	5008	5608
EU Institutions	11435	12868	13024	12570	12502	18454	18706
GAVI	936	719	469	772	819	1415	1679
Global Environment Facility	1062	814	711	530	734	606	428
Global Fund	1627	2172	2337	3031	2647	2887	5242
Montreal Protocol Fund	94	76	29	21	10	45	-
OSCE	-	-	-	150	151	131	109
Total Concessional	39155	38068	45295	44254	42565	52356	54806
Non-concessional Flows							
AFDB	1398	1121	3626	2042	3051	3045	5191
Arab Funds	751	1790	1827	1864	1599	2205	2541
ASDB	5234	6472	7898	5212	5626	7600	9188
Caribbean Development Bank	102	101	114	247	83	49	78
EBRD	2227	2759	3606	3629	4034	4283	4374
EU Institutions	5997	4284	833	942	982	868	1358
IBRD	9990	13393	21408	26511	15971	15858	16120
IDB	6715	7158	11415	10352	7187	8789	7557
IFAD	40	53	58	44	43	92	132

IFC	4332	189 5022	4472	4184	4733	-	-
Total Non-concessional	36025	40364	53771	53206	44013	43671	46742

Source : OECD – 2012, 2015 and 2018 (Aid Statistics)

These disbursements by multilateral agencies to developing countries consist not only of the contributions of developed countries but also of funds raised on the international capital market and repayment of previous loans. The table shows that the world bank is essentially a commercial institutions lending on non-concessional terms, and it raises large sums of money on the world's capital markets.

The IDA is the 'Soft' loan affiliate of the World Bank and dispenses loans at very low rates of interest with long repayment periods. It is most important provider of concessional multilateral assistance. In 2011, its total disbursement to developing countries has been \$ 11, 703 million. Only countries with less than a certain level of per capita income are eligible to get assistance from this international institution. Then European Union (EU) has also become a major provider of concessional assistance through the European Development Fund (EDF). In 2011, it dispensed over \$ 12 billion which is more than that of the IDA.

So far as non-concessional assistance in recent years is concerned, the major providers (apart from the World Bank) have been the two regional development Banks IDB (the Inter-American Development Bank, lending to Latin America) and the As DB i.e. Asian Development Bank. International Finance Corporation (IFC) has also been assisting the developing countries to a great extent.

So far we have talked about ODA from the donor's point of view. But so far as the recipients are concerned, the following table shows the list of top 10 recipients of ODA in 2011 and in 2010.

Table : Top Ten Recipients of Gross ODA (USD millions)

Country	2011	Country	2015	Country	2017
1. Afghanistan	5669	1. Afghanistan	3828	1. India	3516
2. Congo, Dem Rep.	4288	2. India	3179	2. Afghanistan	3024
3. India	3277	3. Vietnam	2623	3. Syrian Arab Republic	2524
4. Indonesia	2628	4. Ethiopia	1916	4. Vietnam	2308
5. Pakistan	2594	5. Indonesia	1910	5. Ethiopia	2172
6. Vietnam	2352	6. Pakistan	1883	6. Iraq	2102
7. China	2277	7. Syrian Arab Rep.	1721	7. Jordan	2005
8. Ethiopia	1956	8. Kenya	1693	8. Indonesia	1973
9. Iraq	1909	9. Jordan	1625	9. Bangladesh	1874
10. Haiti	1791	10. South Sudan	1517	10. Pakistan	1765

It can be seen from the table that place of India and Afghanistan and Ethiopia has remained the same while receiving aid. So far as the share of gross bilateral ODA is concerned, statistics from OECD show that top 5% recipients have increased their share from 16% in 2010 to 17% in 2011. The share of top 10% recipients have also risen from 26% to 27% but the share of top 20% recipients have remained the same at 39% (both in 2010 & 2011). The data also shows that whether it has been recent years or throughout the history of DAC countries aid, the poorest countries have received only a quarter of all aid. Even during recent increases in aid, these allocations did not change.

Because foreign aid is seen differently by donor and recipient countries, let us analyse the giving and receiving process from these two often contradictory view points.

9.7 DONOR MOTIVES FOR GIVING FOREIGN AID

There are several motives which inspire financial assistance from public bodies on concessional terms, such as humanitarian, political, commercial, military and economic. Some development assistance may be motivated by moral and humanitarian desires to assist the less fortunate, but there is no significant evidence to suggest that over longer periods of time donor countries assist others without expecting corresponding benefits in return.

(i) **Moral and Humanitarian Motives :-** The objectives of most donors have an ingredient of moral obligation, stressing that social welfare should be promoted in the LDCs so as to decrease the disparity between the two groups. Donor provide aid for moral and humanitarian reasons to assist the poor, like emergency food relief programmes. Other feel obliged to compensate LDC's for past exploration and colonisation. National boundaries are quite artificial constructions, therefore, developing countries accept assistance not only from national government as a part of their regular aid program, but also from many voluntary and charitable organisations, and from emergency and disaster relief funds.

(ii) **Political, Commercial and Military Motives :**

The donor's primary motives for giving aid is political rather than moral and humanitarian. The political purposes have been to obtain strategic advantages and to cultivate the aspirations of the donor such as democracy and communism, among others. The termination of World War II witnessed the gradual emergence of liberated nations who required assistance for progress. The United States also used aid extensively during the cold war to stop the spread of communism and reward friendly countries. The friendly countries are usually those which would help the U.S.A. to protect against the danger of the spread of communism. Soviet foreign aid was also similar the U.S.A foreign aid. Furthermore, as Todaro (1989) said, "the direction of total aid is not always given to the neediest countries. Less than half of the bilateral development aid goes to the forty six countries with the lowest incomes. Most aid based on political and military considerations goes to relatively well-off Third World countries." (Todaro, 1989, p 483). Bilateral assistances are also often reflects political and military objectives. Therefore, it can be said that especially the decision to grant aid to the another country is fundamentally a political decision. In other words, economic aid from the powerful to the powerless countries is an instrument of power politics.

(iii) **Economic Motives :** Two-Gap Models and other criteria. Apart from political and military motivations, there are also some commercial motives for giving aid as they procure economic benefits as a result of their aid programmes. This is apparent as donors are increasingly tending towards providing loans instead of grants. And if the rate of interest on loans is higher than the productivity of capital in the developed donor country and lower than the productivity of capital in the developing recipient country, both parties will gain. As it is stated by Thirlwal (1989)," there are some economic motives for developed countries investing in developing countries, not only to raise the growth rate of the developing countries, but also in their own-self interest to raise their own welfare. (Thirlwal, 1990, p. 320). In this case, international aid can be mutually profitable. Let us examine the principal economic arguments advanced in support of foreign aid. External Finance (both loans and grants) can play a critical role in supplementing domestic resources in order to relieve savings of foreign, exchange bottlenecks. This is the so-called two gap analysis of foreign assistance which is discussed below.

9.8 TWO GAP MODEL OR DUAL GAP ANALYSIS OF FOREIGN AID

In an open economy, domestic savings can be supplemented by many kinds of external assistance. In national income accounting, an excess of investment over domestic saving is equivalent to a surplus of imports over exports. The national income equation can be written from the expenditure side as :

$$\text{Income} = \text{Consumption} + \text{Investment} + \text{Exports} - \text{Imports.}$$

Since saving is equal to Income minus Consumptions we have

$$\text{Savings} = \text{Investment} + \text{Exports} - \text{Imports.}$$

then $\text{Investment} - \text{Savings} = \text{Imports} - \text{Exports.}$

An import surplus financed by foreign borrowing can supplement domestic savings directly or indirectly, by providing foreign exchange to buy imports which could be capital goods or substitutes for domestically produced consumer goods.

Notice that in accounting terms the amount of foreign borrowing required to supplement domestic saving is the same whether the need is just for more resources for capital formation or for imports as well. The identity between the two gaps, the investment-saving (I-S) gap and the Import-Export gap (M-X) follows from the nature of the accounting procedures. It is a matter of arithmetic that if a country tries to invest more than it saves a balance of payment deficit will result. Or, to put it differently, an excess of imports over exports necessarily implies an excess of resources used by an economy over resources supplied to it, or an excess of investment over saving. There is no reason in principle, however, why the two gaps should be equal ex-ante. This is the starting point of dual-gap analysis.

Consider a country with a particular target rate of growth. To achieve that target rate of growth, savings and imports will be required. In the Harrod model of growth it will be remembered that the relation between growth and savings is given by the incremental capital-output ratio (c) which is the

$$\frac{s}{c}$$

reciprocal of the productivity of capital (p) i.e. $c = \frac{s}{g}$ or $g = sp$. where g is the rate of growth and s is the savings ratio. Likewise, the relation between growth and imports is given by the incremental output-

import ratio $\left(\frac{\Delta Y}{M} = m\right)$ and the ratio of investment goods imports to income ($M/Y = i$) i.e. $g = im'$. where i is the import ratio. If p and m' are given, an increase in g requires an increase in s and i . Let r be the target rate of growth. The required savings ratio (s^*) to achieve that target is then $s^* = r \phi p$, and the required import ratio (i^*) is $i^* = r \phi m'$. If domestic saving is 'calculated to be less than the level necessary to achieve the target rate of growth, there is said to exist a savings investment gap equal to $s^* - s$. Similarly, if minimum import requirements to growth target are calculated to be greater than the maximum feasible level of exports, there is said to exist an import-export or foreign exchange gap equal to $i^* - i$. In the absence of foreign borrowings, growth will proceed at the highest rate permitted by the most limiting factor. The biggest gap is the savings investment gap, growth is limited by the availability of domestic savings and is said to be investment limited. If the biggest gap is foreign exchange gap, growth is limited by the availability of foreign exchange and is said to be trade limited. Traditionally, the role of foreign borrowing was to supplement different domestic savings. The distinctive contribution of dual gap analysis to development theory is that if foreign exchange is the dominant constraint it points to the additional role of foreign borrowing in supplementing foreign exchange, without which a fraction of domestic savings might be unutilized, because actual growth would be constrained by the inability to import necessary inputs. That is; if the foreign exchange gap is the larger ($i^* - i$) $m' > (s^* - s)p$, growth

cannot proceed at the rate sp but must proceed at the lower rate im' . If p is given, a fraction of it must go unused.

Dual-gap analysis also performs the valuable service of emphasising the role of imports and foreign exchange in the development process. Dual-gap analysis synthesises traditional and more modern views concerning aid, trade and development. On the one hand, it embraces the traditional views of foreign assistance as merely a boost to domestic savings; on the other hand it takes in the more modern view that many goods necessary for growth cannot, be produced by the less developed countries themselves and must therefore be imported with the aid of foreign assistance. Indeed, if foreign exchange is truly the dominant constraint, and consistently in short supply some would say that dual gap analysis also presents a more relevant theory of trade for less developed countries which justifies protection and import substitution. If growth is constrained by a lack of foreign exchange, free trade cannot guarantee simultaneous internal and external equilibrium and the gains from trade may be offset by the underutilization of domestic resources. Let us now analyse the two gaps in a little more detail and consider the role of foreign borrowing in relation to them. It should be stressed from the outset, of course, that since the growth is limited by the larger of the two gaps, foreign borrowing is only required to meet the larger of the two gaps. If the export-import gap is the larger the role of foreign borrowing in supplementing domestic saving is, in effect, superfluous and vice versa. The two gaps are not additive.

The Investment-Saving Gap : Support to start with we assume that the I-S gap is the larger of the two- gaps, so that foreign borrowing must be sufficient to meet the short fall of domestic saving below the level necessary to achieve the target rate of growth. What we wish to consider is the size of the initial gap that must be filled by foreign borrowing and the determinants of the size of the gap to be filled in future years by foreign assistance. If the gap is too narrow and foreign borrowing be terminated, the presumption must be that additional increments to saving out of the increases in national income generated are greater than the increments of investment. For any target-rate of growth r ; the required foreign assistance in the base year (F_0) is,

$$F_0 = I_0 - S_0 = Y_0 Cr - Y_0 S_a = Y_0 (cr - S_a)$$

Where I_0 is investment in the base period.

S_0 is savings in the base period.

Y_0 is the income in the base period

c is incremental capital-output-ratio.

S_a is average savings ratio.

& r is the target rate of growth.

If the rate of savings is expected to rise over time, the savings function may now be written as

$$S_t = S_a Y_0 + s' (Y_t - Y_0) = (s_a - s') Y_0 + s' Y_t \quad \text{II}$$

Where s' is the marginal savings ratio.

Rewriting investment requirements at time t as

$$I_t = Y_t cr \quad \text{III}$$

And combining II & III, we get the net inflow of capital required in time t :

$$F_t = Y_t cr - [(s_a - s') Y_0 + s' Y_t] \quad \text{IV}$$

$$F_t - (cr - s') Y_t + (s' - s_a) Y_0 \quad \text{V}$$

The difference between borrowing requirements in the base year and borrowing in period t is the difference between equations V & I which reduces to

$$\text{or } (Y_t - Y_0) - s' (Y_t - Y_0) \\ \text{or } F_t - F_0 - \Delta\lambda - \Delta S \quad \text{VI}$$

i.e., increments in external capital finance the difference between investment requirements to sustain the target rate of growth and increases in savings generated by rising income. If foreign assistance is to decline (Le. $F_t < F_0$), Δs must be greater than $\Delta 1$. The investment saving gap will disappear, and the phase of investment limited growth come to an end, when domestic saving reaches a level adequate to sustain the target rate of growth.

From (V) the rate of growth that can be achieved with an exogeneously given inflow of foreign capital is

$$r = \frac{1}{C} \left((sa - s') \frac{Y_0}{Y_t} + s' + \frac{F_t}{Y_t} \right) \quad \text{VII}$$

The derivative of r with respect to F is positive, so that a larger inflow of foreign capital can achieve a higher growth rate, provided there is no rise in C-the capital output ratio or fall in s' ,

From (V) we can also calculate the number of years after which a country can generate enough domestic savings to finance its target rate of growth and dispense with foreign borrowing. Equation (V) becomes in the nth year when $F_n = 0$,

$$(cr - s') Y_n + (s' - sa) Y_0 = 0 \quad \text{VIII}$$

$$Y_n = \left(\frac{s' - sa}{s' - cr} \right) Y_0 \quad \text{IX}$$

Since $Y_n = Y_0 (1 + r)^n$

$$\text{Then } (1 + r)^n = \frac{Y_n}{Y_0} = \frac{\left(\frac{s' - sa}{s' - cr} \right) Y_0}{Y_0} \quad \text{X}$$

$$\text{Or } (1 + r)^n = \frac{s' - sa}{s' - cr} \quad \text{XI}$$

from which n can be calculated. We stress again that the essential condition for a country to reduce its external borrowing requirements is that the marginal rate of savings should exceed the required rate of investment i.e. $s' > Cr$ in (XI) above, is obviously highly sensitive to s' & c.

(ii) The Import-Export or Foreign Exchange Gap

Now let us suppose that the M-X gap is the larger of the two gaps. In the base year the foreign assistance required to cover the foreign exchange gap is

$$F_0 = M_0 - X_0 = Y_0 m_a - Y_0 x_a = Y_0 (m_a - x_a) \quad \dots \text{XII}$$

Where M_0 is imports in the base period

X_0 is exports in the base period

Y_0 is income in the base period

m_a is average import coefficient

and x_a is the average export coefficient. If imports in year t equal.

$$M_t = m_a Y_o + m' (Y_t - Y_o) \quad \text{XIII}$$

$$\text{and exports, } X_t = X_o Y_o + x' (Y_t - Y_o) \quad \text{XIV}$$

where m' is the marginal import coefficient & x' is the marginal export coefficient and

$$Y_t = I_t/cr$$

then the foreign borrowing requirement in time t to achieve the target rate of growth is

$$F_t = m_a Y_o + m' (Y_t - Y_o) - X_a Y_o - x' (Y_t - Y_o) \quad \text{XV}$$

Subtracting XII from XV gives

$$F_t - F_o = \Delta M - \Delta X$$

i.e. increments in external assistance finance the difference between imports to sustain the target rate of growth and the increments of exports. If the level of foreign assistance is to decline over time (i.e. $F_t < F_o$), x' must be greater than m' .

The condition for, reduced dependence on foreign assistance is that X' should increase relative to m' .

An alternative approach is to express the minimum import requirement for growth as a proportion of investment requirements, in which case from III we have

$$M_t = m_i I_t = m_i Y_t cr \quad \text{XVI}$$

Where m_i is the import investment coefficient.

The condition that $F_t = M_t - X_t$ gives

$$Y_t m_i cr = X_t + F_t \quad \text{XVII}$$

and the trade-limited growth rate is then

$$r = \frac{I}{m'} \left(\frac{X_t}{Y_t} + \frac{F_t}{Y_t} \right)$$

The export-import gap will become less and less restrictive as time goes on, provided exports increase as a faster rate than national income (i.e. if $x' > x_a$) and/ or if m_i falls which is likely as more and more capital goods are produced domestically.

With respect to policy, the analysis highlights the importance of a greater proportion of resources devoted to exports. The $M-X$ gap will only disappear and trade-limited growth come to an end, when exports rise to a level sufficient to meet the import requirement of the target of growth set. One of the pre-conditions of an end to reliance on foreign borrowing to finance development and to payoff past debts; is that a balance of payment deficit be turned into a healthy continuing surplus through price and income adjustment mechanisms internally.

Thus, the Two-gap models simply provide a crude methodology for determining the relative need and ability of different LDCs to use foreign aid effectively.

Now the agreements on behalf of foreign aid as a crucial ingredient for LDCs development should not mask the fact that even at the strictly economic level, definite benefits accrue to donor countries as a result of their aid programmes. The strong tendency towards providing interest-bearing loans instead of outright grants and towards tying aid to the exports of donor countries has saddled many LDCs with substantial debt repayment burdens. It has also increased their import costs because

aid tied to donor-country exports the receiving nations freedom to shop around for low cost and suitable capital and intermediate goods. About \$ 15 billion of DAC aid to developing countries is tied to the purchase of donor's goods. In this sense, capital inflows are not worth as much as they might be as the recipients have to pay higher prices for goods and services bought with aid money than the prices prevailing in the free market. Aid tying can be of two kinds; restrictions on where the recipients can spend the aid money, the restrictions on how the aid is used. Spending restrictions take the form of tying assistance to purchases in the donor country—so called 'procurement tying'. This reduces the real worth of aid because it prevents recipients from shopping around to find the precise goods they want in the cheapest markets. Restricting the use of aid to particular projects as well as to the donor country's goods amounts to double tying. So tying can be quite expensive. Because if there is double tying, the project for which assistance is given might not fit perfectly into the recipients development programme, the technology might be inappropriate, the donor may raise the import content unnecessarily, the suppliers may engage in exploitation, knowing that they have a captive consumer, and servicing over the life of the investment may be expensive. In 2001, the OECD's Development Assistance Committee endorsed a proposal to untie aid to the LDCs, but even this belated gesture covers only a fraction of spending, excluding food aid and technical cooperation.

9.9 RECIPIENTS' MOTIVES FOR ACCEPTING AID

The first major motive is probably economic. Developing countries have often tended to accept the proposition—typically advanced by developed-country economists and supported by reference to success stories like Taiwan, Israel, and South Korea to the exclusion of many more failures—that aid is a crucial and essential ingredient in the development process. It supplements scarce domestic resources and helps in transforming the economy structurally, so the economic rationale for aid in LDCs is based largely on their acceptance of the donor's perceptions of what the poor countries require to promote their economic development. Hence conflicts generally arise, not out of any disagreement about the role of aid, but over its amount and conditions. According to Todaro (2012), "Naturally, LDCs would like to have more aid in the form of outright grants or long-term low-cost loans with a minimum of strings," (Todaro, 2012, p-736).

Moreover, recipients use aid for commercial reasons as they shift resources from their destined projects or programs to other non-productive purposes. This is known as the 'fungibility of aid' which is a theoretical phenomenon. It means that the govt. of a developing country adjusts its allocation of expenditure, which is equal to domestic resources plus foreign aid, between two goods or sectors to achieve its highest benefits. But unfortunately, sometimes foreign aid inflows are switched from productive purposes to non-productive or wasteful forms of recurrent expenditure. These include enlarging the army, paying-off debts, reducing taxes and reducing borrowing. Moreover, recipient motives are not always directed towards poverty alleviation and benefiting the poor. This is apparent since property interests in developing countries are aligned to governments and thus the benefit of foreign aid goes primarily to the rich. This is a contradiction in the objectives of aid which are primarily to alleviate poverty among the masses and increase growth rates.

In some countries, "as Todaro says," aid is seen by both donor and recipient as providing greater political leverage to the existing leadership to suppress opposition and maintain itself in power. In such instances, assistance takes the form not only of financial resource transfers but of military and internal security reinforcement as well. But the problem with this type of assistance is that once aid is

accepted, the ability of recipient govts. to extricate themselves from implied political or economic obligations to donors and prevent donor govts. from interfering in their internal affairs can be greatly diminished.

9.10 FOREIGN AID AND ECONOMIC DEVELOPMENT

The economic objectives of foreign aid are to induce high growth rates in LDCs which in then will generate additional domestic savings and investments, however, there is much dispute as to whether development assistance to LDCs has been successful in achieving these objectives. Aid antagonists are of the opinion that aid does not promote faster growth but may in fact retard it by substituting for, rather than supplementing, domestic savings and investment and by exacerbating LDCs balance of payments deficits as result of rising debt repayment obligations and the linking of aid to donor-country exports. On the other hand, there are economists who argue the aid has indeed promoted growth and structural transformation in many LDCs. A study conducted by McGillivray (2005) demonstrates how aid in African countries not only increase growth but reduces poverty. A study by Karras (2006) investigates the correlation between foreign aid and growth in per capita GDP using annual data from 1960 to 1997 for a sample of 71 aid-receiving developing countries. This paper concludes that the effects of foreign aid on economic growth is positive, permanent and statistically significant. These results, however are obtained without considering the effects of policies.

But on the other side, one criticism of aid is that it may lead to a weakening of the domestic development effect by supporting a culture of dependency. In particular, it may weaken a country's tax efforts. In many poor developing countries, the value of aid exceeds tax revenue. To cope with this issue, one suggestion by the Oxford economists Adrain Wood (2008), is for the donors collectively to set an upper limit to the aid to tax ratio (say 50%), above which aid would be phased out, but below which donors would give 50 cents more aid for every extra dollar raised in taxes. This would encourage developing countries to raise more taxes, and at the same time encourage govt. to pay more attention to what their citizens want (because they are paying) rather than what donors want the aid used for.

Official aid is further criticized for focusing on and stimulating the growth of the modern sector, thereby increasing the gap in living standards between the rich and the poor in developing countries. Some critics assert that foreign aid has been a force for anti development in the sense that it both retards growth through reduced savings and worsens income inequalities. Some critics say that foreign aid has been a failure because it has been largely appropriated by corrupt bureaucrats, has stifled initiative and has generally engendered a welfare mentality on the part of recipients nations. (Peter T. Bauer and Basil Yamey, "Foreign aid; what is at stake ? Public Interest, summer 1982 p 55-70 quoted in Todaro, 2012).

Then there is a view that aid can have a positive effect on growth and development on average and is conditional on absorptive capacity, good governance and the policies of donor countries. There is also evidence that aid only works in good policy environments, where there is good governance and sound macroeconomic policy-making. Burnside and Dollar (2000) searched the links between aid, policy and growth and found that foreign aid has a positive impact on growth in developing countries with good fiscal, monetary and trade policies but has little effect in the presence of poor policies. Thus the effectiveness of aid, it is argued, however, depends largely upon both the donor and recipients motives and how these may be aligned or conflicting with the objectives of aid. It also depends on the

extent of typing of aid to different capital projects etc. Whether the recipient uses the aid to increase savings and investment rather than switch aid resources to consumption and other non-productive purposes, also determine the effectiveness of aid.

9.11 SUMMARY

To sum up, the lesson describes that in addition to foreign direct investment and multinational corporations, Foreign aid also plays an important role in economic development. Now the question arises, what is foreign aid? Foreign aid refers to transfer of real resources from government or public institutions of the richer countries to govts. of less developed countries in the third world. This aid can be provided by the official as well as private agencies. Generally foreign aid is provided for the development purposes. Then there are some motives both on the recipient side and donors' side. On donor's side, the motives are (i) humanitarian (ii) political, commercial and military motives and (iii) economic motives. On the recipient side the motives are generally economic but sometimes the aid is used for non productive uses also which reduces the effectiveness of aid.

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9.14 MODEL QUESTIONS

- Q.1 What do you mean by the term foreign aid? Explain its types
- Q2. Explain the rationale of foreign aid. What are the factors that determine the Quantum of Foreign aid?
- Q3. How would you establish the relationship between foreign aid and economic development?
- Q4. Discuss in detail the donor's and recipients motives for foreign aid.

ON THE CHOICE OF ECONOMIC SYSTEMS – I

ROLE OF THE MARKET

Structure

- 8.0 Objectives
- 8.1 Introduction
- 8.2 Functions of the Market.
 - 8.2.1 Allocation of given stock of consumer's goods
 - 8.2.2 Allocation of production between commodities
 - 8.2.3 Allocation of factors of production among their various uses
- 8.3 Efficiency of the competitive Market
- 8.4 Market Failure
 - 8.4.1 Causes of Market Failure
 - 8.4.2 Market failure in a dynamic economy
- 8.5 Options for govt. intervention in markets
- 8.6 Summary
- 8.7 Glossary
- 8.8 References
- 8.9 Further Readings
- 8.10 Model Questions

10.0 OBJECTIVES

After going through the lesson, you will be able to:

- conceptualize the term market
- discuss the functions of the market
- understand the concept of efficiency of competitive market
- describe the meaning and reasons of market failure
- analyze the role of govt. in order to cure the market failures

10.1 INTRODUCTION

In the previous lessons, we have studied about the role of international trade and foreign aid in the process of economic development. We came to know that though they play an important role, yet they have their own limitations. Now in the process of economic integration with the world and globalisation, the market and the state in a country also play an important role. Hence, in this lesson and the next, we will analyze economic systems to determine which one is most appropriate to promote economic development. An economic system is defined as an instrumental framework by which competition among the people for the use of resources is coordinated.

In reality, an economic system is expressed as a combination of various economic organizations. Market and state are two major organizations which determine the characteristics of the economic system. There is a difference between 'institution' and 'organization' Douglas North (1994) defined institution as a 'rule in society' and organization as a 'Functional body of group' organized to act for a specific purpose. Theoretically, this distinction is meaningful but in practice, institution and organization are inseparable. The market, for example, is an institution as it consists a set of rules for controlling voluntary transaction under the parameter of prices. At the same time, it is also the functional body organizing various marketing agents, such as retailers and whole sales, to bridge between consumers and producers. Similarly, state is an institution comprised of rules for governance. But it is also a functional body consisting of various agencies and bureaue organized according to these rules. Hence an institution can be defined as a 'set of rules to organize people in to the functional body and organization is defined as 'a functional body organized by a set of rules.' But when we consider both market and state by their roles as agents of actions, they are called 'organizations. It is also legitimate to call them 'institutions': Let us first focus our attention on the market system and its role in an economy and the problems associated with it.

10.2 FUNCTIONS OF THE MARKET

In free enterprise market economy, resources are allocated by Adam Smith's 'Invisible hand' of the market in accordance with the consumer demand. The market is the organizational framework that brings together those who supply and those who demand a product, who then trade at an agreed price. In a completely Free market, the price will clear the market so there are no unsatisfied buyers and sellers. Decision-making about what is produced is decentralized and left to the market, comprising the decisions of myriad private individuals. If the demand for a good increases, the price will rise and producers will be induced to supply more; if demand falls, the price will fall and producers will supply less. Market prices act as signals to producers to supply more or less of a commodity according to the changing profitability of production. The efficiency of markets relies on prices acting as signals, on suppliers responding and on the mobility of the factors of production enabling supply to be forthcoming. The following figure shows how the prices act as signals to adjust demand and supply.

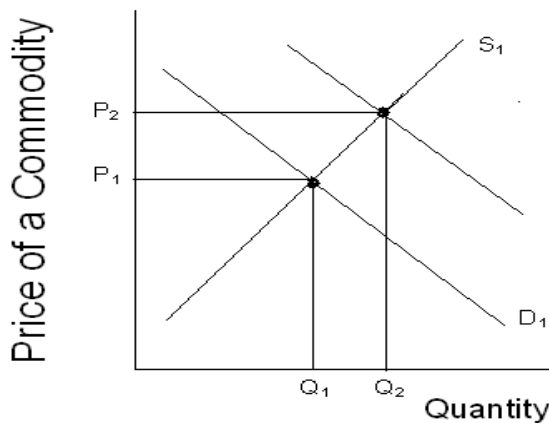


Fig. 1 (a)

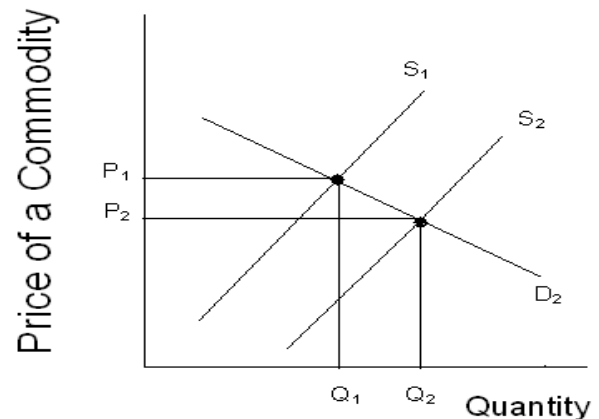


Fig. 1 (b)

In fig 1 (a), higher demand signals to producers to step up production. Total revenue is higher at price P_2 and out put Q_2 . In Fig 1 (b), an increase in supply leads to lower market prices—a signal to consumers that their real income has increased or we can say an increase in market supply causes a fall in the relative prices of the commodity and prompts an expansion along the market demand curve.

Besides this market performs some allocative and creative functions. Which are mentioned below.

10.2.1 Allocation of given stock of consumers' goods.

In an economy based on division of labour, production is rarely done for self consumption. What actually happens is that each person does some specialized work for which he is paid and his earnings help him to get different goods and services. In this process, market plays an important role. All free enterprise economies have markets, where producers look for the buyers of the products. Guided by the profit motive these producers sell their products to those who pay the highest. Obviously in these markets consumers are not treated equality. Their voice depends on the strength of their purchasing power. The relatively poor people are allocated very few consumers goods, while the rich manage to get almost everything they desire to have. Thus the market rations consumers' goods among consumers in accordance with the purchasing power they have. If the given income distribution is not to be questioned, then in a competitive market, distribution of goods among the consumers may be pareto optimal. However, in reality, due to inequality in income distribution, the distribution of consumer goods among the people is invariably discriminatory.

10.2.2 Allocation of production between commodities

With given resources, people in a country can produce a limited number of goods and services and their quantities also cannot be unlimited. There fore, whatever be the nature of the economy, it faces a basic problem as to what goods and services it has to produce. In a socialist economy, decisions are taken by the govt. regarding the pattern of output and the resources are allocated accordingly. But in a capitalist economy, it is not the case. There market directs the allocation of production between commodities according to the criterion of maximum profit. Prevailing prices often reflect the demand pattern and can be rightly used by the producers for decision-making in a free market economy. If a producer ignores this, he will do this only at his own risk. So a careful reading of the market is essential for knowing the scope for new products. If the producers get due from the market as to what prices different products will fetch, they can attempt to maximize their profits in case they undertake the production of any one of these goods with given of even changing cost structure. Though these decisions are difficult to take, but there is no other option.

10.2.3 Allocation of factors of production among their various uses

Since no country has an unlimited supply of the factors of production, their judicious allocation is a problem which every country has to overcome for optimising the socially necessary output on the one hand and for maximizing the factor incomes on the other. In planned economies, the problem of resource allocation is tackled by the state in accordance with the set priorities. Obviously such a thing is ruled out in a free enterprise economy. In this case, markets for different factors of production exist where free play of forces of demand and supply determine factor prices. There factor prices act like guide posts. Producers, in order to minimize their costs, look for factors which are relatively cheap. Since in most cases, technological coefficients are not fixed, it is not difficult for them to substitute a cheaper factor for a relatively dearer factor. Owners of the factors, on the other hand, look for the buyers, who offer the highest price. In this process, factor suppliers maximize their incomes and the factors get employed in production units where their demand is more, so they also earn more.

The allocation role of markets discussed above, however, is only one type of functions of the market mechanism. To use a distinction introduced by Kaldor (1972), the market also had a creative function, to provide an environment for change that expands production possibilities which shifts the production possibility curve outwards from its previous level so as to enable a higher level of utility.

Then an environment for change means all the dynamic forces that lead to technical progress, innovation and ultimately investment. In the early stages of development, the creative function of markets, producing new opportunities for growing, may be just as important as the allocative functions of the market.

Harry G. Johnson¹⁸ and many other conservative economists have forcefully argued that market provides incentives to economic growth. Firstly, it induces the consumer to work hard so as to obtain an increase in his income. Secondly, it provides an opportunity to innovators to benefit from the introduction of new goods and exploitation of technical improvements. Lastly, the market contributes to growth by providing incentive to accumulation of capital both material and human. Johnson concludes his arguments thus, “a properly functioning market system would tend to stimulate both economic efficiency and economic growth. And it is important to note that the market does this automatically, while it requires no big administrative apparatus, no central decision-making and very little policing other than the provision of a legal system for the enforcement of contracts. This assertion apparently looks quite convincing. But is it really so? That is the main question. Because there are many restrictive conditions which are faced by a market (competitive market) in performing its functions and to maximize efficiency.

10.3 EFFICIENCY OF THE COMPETITIVE MARKET

The orthodoxy of economics from Adam Smith and the English classical school to the neo-classical school indicates that competition in a free market results in a socially optimum allocation of resources. Adam Smith clearly recognized that the mechanisms of a free market would guide people towards the promotion of total economic welfare in society. His famous thesis of the ‘invisible hand’ expressed this mechanism succinctly.

Every individual necessarily labours to render the annual revenue to the society as greatly as he can. He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By preferring the support of domestic to that of foreign industry he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many cases, led by an invisible hand to promote an end which is no part of his intention. [Smith, 1776; 423].

On the basis of this theory, Adam Smith advocated removal of trade restrictions in the Mercantile system as a major means of maximizing the wealth (or income) of nations. According to him, removal of trade restrictions would not only improve static efficiency in resource allocation in a single production period but would contribute to economic growth through the dynamic effect of increased division of labour stemming from an enlarged market over time.

On the other hand, free trade advocates, from Ricardo to the neo-classical school were mainly concerned about the proof of static efficiency in the free market, that is, efficiency in the allocation of existing resources in a given period while disregarding accumulation of the resources over time. Here, the neo-classical position will be summarized. [Ricardo’s comparative advantage theory was discussed in lesson 5].

¹⁸ * Harry. G. Johnson, :Market Mechanism as an Instrument of Development” in G.M.Merier (ed), Leading Issues in Economic Development. Oxford university press. 1990, Delhi, p.517.

So far as neo classical theory is concerned, the first step is the mechanism of the market to equate demand and supply of a commodity (or service) through adjustments in its price. A free market has the power to establish a single price. If a commodity is sold at different prices, all the buyers would be attracted to the low priced supplier, bidding up his price, while no one would buy from a high-priced supplier, forcing his price down. The same mechanism continues to operate in adjusting the price to equate demand and supply of the commodity. If the price is too high, demand falls short of supply, piling up of unsold surplus, which will force suppliers to lower the price. On the other hand, if the price is too low and attracts too many buyers relative to supply, the price will go up through competition. If demand and supply are thus equated, waste from unsold surpluses and unproductive efforts of looking up for commodities in short supply can be avoided. So according to the neo classical economics, this equilibrium between demand and supply in the free competitive market represents an efficient resource allocation for the production of a commodity to maximize economic welfare in society.¹⁹ In terms of Alfred Marshall's (1890), 1953) concepts, the demand curve for a commodity in the competitive market is the schedule of decreasing marginal utility for increased consumption, while the supply curve is the schedule of marginal cost for increased production. Therefore, marginal utility and cost are equated at the demand and supply equilibrium, resulting in the maximum, utility to society.

In terms of the general equilibrium theory of Leon Walras (1874) and Vilfred Pareto (1906), the equilibrium reached through transactions in a free competitive market represents an efficient resource allocation in the sense that no participants in market transactions can increase his economic welfare without decreasing others' welfare the so-called 'Pareto Optimality'.

So maximization of efficiency (the achievement of a Pareto Optimum) a market in performing its allocative and creative functions depends upon a number of restrictive conditions such as perfect competition in the product and factor market, reliable information about the present and future price and non price variables, given consumers tastes, attempt by producers to maximize their profits, non-existing increasing returns to scale etc.... These conditions are very stringent and are unlikely to be satisfied in any economy, let alone developing economies. The true benefit of output may not be reflected in price because of externalities; price may not reflect marginal cost because of market imperfections; and many developmental goods and services may not be produced at all because markets are incomplete or missing entirely and therefore cannot perform their creative function. In other words, they are likely to be market failure.

10.4 MARKET FAILURE

If the market can achieve a socially desirable allocation of resources, there should be no need for govt. to coercively intervene in economic activities. However, the market is not able to achieve optimality in all economic activities. Divergence of market equilibrium from the point of Marshallian net utility maximization or Pareto optimality is called market failure. Hence it is the situation where market mechanism fails to allocate resources efficiently. Efficiency includes social efficiency, allocative efficiency, technical efficiency and productive efficiency. Social efficiency is where external costs and benefits are accounted for. Allocative efficiency is where society produces goods and services at minimum cost that are wanted by consumers. Technical efficiency is production of goods and services using the minimum amount of resources. Productive efficiency is production of goods and services at lowest factor cost.

10.4.1 Causes of Market Failure

¹⁹ Yujiro, Hayami and Yoshohira Godo (2005). Development Economics From the poverty to the wealth of Nations. Oxford university press-New Delhi

The circumstances due to which market fails to achieve economic efficiency or maximum social welfare have been called market failures. Competitive markets fail for four basic reasons. (i) the presence of externalities i.e. external economies and diseconomies in production and consumption; (ii) Market imperfections or the market power (iii) the consumption of public goods & (iv) Asymmetric or incomplete information.

- (I) **EXTERNALITIES** – The existence of externalities is an important factor which prevents the achievement of pareto optimality (or maximum social welfare or economic efficiency) and causes the market failure even when perfect competition prevails. Externalities can arise in many ways, but however they arise, their effects are always the same : The actions of a consumer or producer may benefit or harm other consumers and producers.

Externalities are positive if they help other producers or consumers. We frequently observe positive externalities from consumption. For example, when a child is vaccinated to prevent the spread of a contagious disease, that child receives a private benefit because the immunization protects the child from contracting the disease. Further, because the child is less likely to transmit the disease, other children in the community benefit as well. This is a positive externality because one consumer's decision to buy a good improves the well being of other consumers. There are also positive externalities from production. The development of a new technology often benefits not only the inventor but also many other producers and consumers in the economy.

Externalities can also be negative if they impose costs on or reduce benefits for other producers. Production occurs if a manufacturer of an industrial good causes environmental damage by polluting the air or water. Highway congestion is an example of a negative externality.

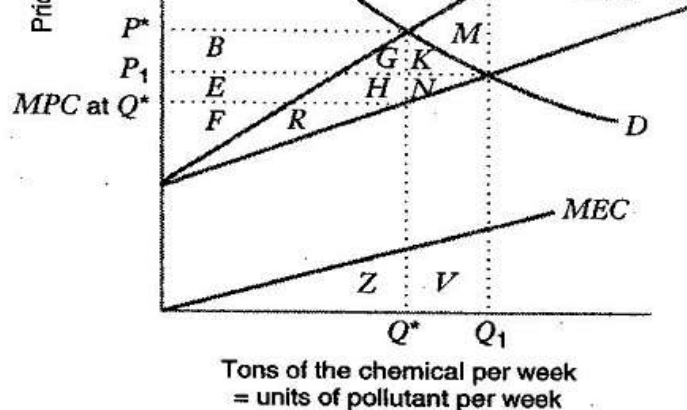
• **Negative Externalities and Economic Efficiency**

Now the question is: In a competitive market when there are negative externalities, why do firms produce too much? Consider what happens when the production process for a chemical product also generates toxic emissions that harm the environment. Let us assume that there is only one technology that produces the chemical and it produces the chemical and the pollutants in fixed proportions. One unit of pollutant is emitted along with each ton of the chemical produced. Each producer of the chemical is "Small" in the market, so each producer acts as a price taker.

Now, if the producers do not have to pay for the environmental damage their pollution causes, each firm's private cost will be less than the social cost of producing the chemical. The private cost will include the cost of capital labour, raw material and energy necessary to produce the chemical. However the private cost will not include the cost of the damage that the toxic waste does to the air or water around the plant. The social cost includes both the private cost and the external cost of environmental damage. The following figure depicts the consequences of externality in a competitive market. With a negative externality, the marginal social cost exceeds the marginal private cost.

With a negative externality, the marginal social cost MSC exceeds the marginal private cost MPC by the amount of the marginal external cost MEC. If firms do not pay for the external costs, the market supply curve is the marginal private cost of the industry MPC. The equilibrium price will be P_1 and the market output will be Q_1 . At the social optimum, firms

would be required
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a deadweight loss



and quantity Q^* .
at $(Q_1 - Q^*)$ and to

	Equilibrium (price = P_1)	Social Optimum (price = P^*)	Difference between Social Optimum and Equilibrium
Consumer surplus	$A+B+G+K$	A	$-B -G -K$
Private producer surplus	$E+F+R+H+N$	$B+E+F+R+H+G$	$B+G - N$
-Cost of externality	$-R-H-N-G-K-M$	$-R-H-G$	$M+N+K$ (external cost savings)
Net social benefits (consumer surplus + private producer surplus - cost of externality)	$A+B+E+F-M$	$A+B+E+F$	M (increase in net benefits at social optimum)
Deadweight loss	M	Zero	M

Source : David Besanco & Ronald Brauthigam (2011) : Micro economics.

The marginal private cost curve MPC measures the industry's marginal cost of producing the chemical. Because the technology produces the pollutants and chemical in a fixed proportion, the horizontal axis measures both the number of units of the pollutants and the number of tons of the chemical produced. The marginal external cost of the pollutant is measured by MEC, which rises because the incremental damage to the environment increases as more pollution occurs. The marginal social cost MSC exceeds the marginal private cost by the amount of marginal external cost : $MSC = MPC + MEC$ i.e. the marginal social cost curve is the vertical sum of the marginal private cost curve and the marginal external cost curve.

Now, if the firms do not pay for the external costs, the market supply curve is the marginal private cost curve for the industry (the horizontal sum of the individual firms marginal private cost curves). The equilibrium price will be P_1 and the market output will be Q_1 . The first column of the table in fig above shows the net economic benefits in equilibrium with the negative externality. Consumer surplus is the areas $A+B+G+K$. i.e. the area below the market demand curve D and above the equilibrium price P_1 . the private producer surplus is $E+F+R+H+N$. i.e. the area below the market price and above the market supply curve. The cost of externality is the areas $R+H+N+G+K+M$ (the area below the marginal social cost curve and above the market supply curve), which is equal to the area $Z+V$. The net social benefits equals the sum of the consumer surplus and the private producers surplus minus the cost of the externality i.e. the areas $A+B+E+F-M$.

Now let's see why the competitive market fails to produce efficiently. In equilibrium, the marginal benefit of the last unit produced is P_1 , which is lower than the marginal social cost of production for that unit. Thus the net economic benefit from producing that unit is negative.

The efficient amount of output in the market is Q^* , the quantity at which the market demand curve and the marginal social cost curve intersect. There the marginal benefit of the last unit produced (P^*) just equals the marginal social cost. The production of any units beyond Q^* creates a dead weight loss because the marginal social cost curve lies above the demand curve.

As shown in the second column of the table, if consumers pay the price P^* for the chemical, net economic benefits would increase. Consumer surplus would fall to A (the area under the demand curve and above P^*). Private producer surplus would be areas $B+E+F+R+H+G$ (the area below the price P^* and above the market supply curve). The external cost is areas $R+H+G$ (the area below the marginal social cost curve and above the market supply curve). The net social benefits equal consumer surplus plus private producer surplus minus the external cost ($-R-H-G$) i.e. the areas $A+B+E+F$.

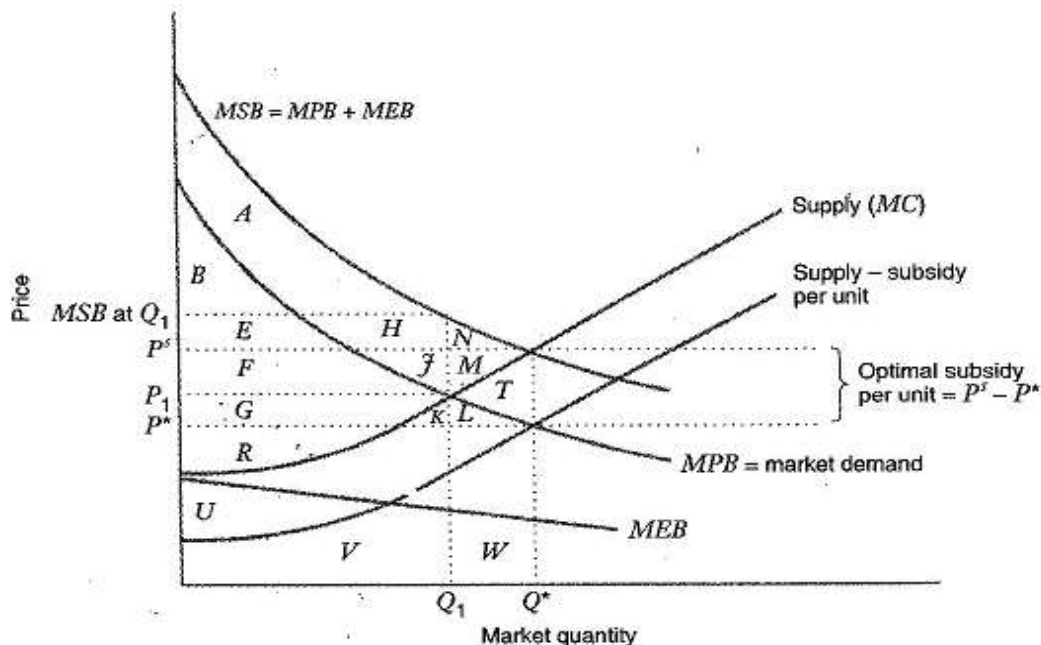
The third column of the table shows the differences between the social optimum and the equilibrium in terms of consumer surplus, private producer surplus and the cost of externality. In terms of the net social benefits, it also shows that the market failure arising from the externality creates a dead weight loss equal to the area M .

Hence, it shows, that the negative externality leads the market to overproduce by the amount $Q_1 - Q^*$. It also reduces the net economic benefits by the area M , the deadweight loss arising from the externality.

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	Equilibrium (no subsidy)	Social Optimum (equilibrium with subsidy)	Difference between Optimum Social and
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			Equilibrium with No. Subsidy
Private consumer surplus	B+E+F	B+E+F+G+K+L	G+K+L
Producer surplus	G+R	F+G+R+J+M	F+J+M
Benefit from externality	A+H+J	A+H+J+M+N+T	M+N+T
-Government cost from subsidy	Zero	-F-G-J-K-L-M-T	-F-G-J-K-L-M-T
Net social benefits (private consumer surplus + producer surplus + benefit from externality – government cost)	A+B+E+F+G+H+J+R	A+B+E+F+G+H+J+M+N+R	M+N

Source : David Besanko, Op. Cit (p. 715)

- **Optimal Subsidy with a Positive Externality**

With a positive externality, the marginal social benefit MSB equals the marginal private benefit MPB plus the marginal external benefit MEB. In a competitive market with no correction for the externality, the equilibrium is determined by the intersection of the demand curve (i.e. the marginal private benefit curve MPB) and the supply curve. The equilibrium price is P_1 and the quantity is Q_1 .

The socially optimal output is Q^* , determined by the intersection of the supply curve and the marginal social benefit curve. The externality leads the market to under produce by the amount $(Q^* - Q_1)$. The social optimum can be reached with a government. Subsidy. The optimal subsidy per unit is the difference between the price received by producers P^s and the price paid by consumers P^* at the efficient quantity Q^* . The optimal subsidy eliminates the deadweight loss (area M + N) that would arise without the subsidy.

If the figure, the market demand curve MPB is the horizontal sum of the marginal private benefit curves of all the individuals in the market. The market supply curve MC is also the industry marginal cost curve. If there is no correction for the externality, the market will be in equilibrium at the intersection of the demand curve and the supply curve, where the price is P_1 and the market output is Q_1 . In equilibrium, private consumer surplus is the area below the MPB curve and above P_1 (areas B+E+F). Producer surplus is the area below P_1 and above the MC curve (areas G+R).

Because of the positive externality, there is also an external benefit in the market as indicated by the marginal external benefit curve MEB. The marginal social benefit MSB exceeds the marginal private benefit by the amount of the marginal external benefit i.e. $MSB = MPB + MEB$. Again at the equilibrium without any correction for the externality (where market output is Q_1), the size of the external benefit is the area below the MSB curve and above the MPB curve (areas A+H+J) which is equal to the area under the MEB curve (area u+v). Thus, at this equilibrium, the net social benefit is the sum of the private consumer surplus, the producer surplus and the benefit from the externality (area $(A+B+E+F+G+H+J+R)$). Now, the question arises : Why does the competitive market fail to produce an economically efficient amount of output? In equilibrium, the marginal cost of the last unit produced is P_1 which is lower than the marginal social benefit for that unit. Thus the net social benefit from producing another unit is positive. The economically efficient market output is Q^* , where the marginal

social benefit equals the marginal cost for the last unit produced. Net benefits would increase if the market expanded production to Q^* . The failure to produce these additional units introduces a dead weight loss equal to areas $M+N$.

How might public policy correct for the economic inefficiency resulting from the underproduction with a positive externality? One possible way would be to subsidize production of the good. A subsidy is like a negative tax and, a subsidy on each unit supplied stimulates production. The question is : how large must the subsidy be to lead the market to produce the efficient output Q^* ? As shown in the figure above, to supply the last unit, producers will need to receive the price P^s . However, the consumers are willing to pay only P^+ for that unit. Thus, there is a gap of $P^s - P^+$ between the price which producers require and the one which consumers will pay. Therefore, if the govt. provides a subsidy equal to $P^s - P^+$, it will induce producers to provide that unit and consumers to purchase it.

Now the table with the figure compares the equilibrium with no subsidy the equilibrium at the social optimum (the equilibrium induced by the govt. subsidy). With the subsidy, private consumers surplus increases by the areas $G+K+L$, producers surplus increases by the areas $F+J+M$, the external benefit increases by the areas $M+N+T$, and the cost to govt. is equal to the areas $F+G+J+K+L+M+T$. Thus, with the subsidy, the net social benefit increases by the areas $M+N$ and there is no dead weight loss.

(ii) Market Power – The inefficiency arises when a producer or supplier of a factor input has market power e.g. monopoly. Now an important complaint against monopoly (and against all forms of imperfect competition) is that it causes misallocation of productive resources and thus hinders the achievement of maximum social welfare. The crucial condition for pareto optimality is that the marginal rate of transformation (MRT) of the community between any two commodities should be equal to the marginal rate of substitution (MRS) between these commodities of every consumer. Now under competition this condition of pareto optimality is satisfied but under monopoly (or in any other form of imperfect competition for that matter), this condition is not satisfied and MRT allocation of resources and services as an obstacle to the attainment of maximum social welfare. The reason is that a monopolist does not equate price of his product with marginal cost of production : he restricts the output and charges the higher price than marginal cost. Assume that there are two commodities, X & Y and further that commodity x is produced under condition of monopoly whereas commodity y is produced under conditions of perfect competition. So in case of commodity x, the price $P_x > MC_x$ of its production. In case of commodity Y, price $P_y = MC_y$ i.e. marginal cost of Y.

$$\therefore MC_y < P_y$$

Since the ratio of marginal cost of two commodities $\frac{MC_x}{MC_y}$ represents the marginal rate of transformation (MRT_{xy}) between them, $\therefore MRT_{xy} < \frac{P_x}{P_y}$

But the consumers to be in equilibrium will equate their marginal rate of substitution between two commodities (MRS_{xy}) with the price ratio of two commodities $\left(\frac{P_x}{P_y}\right)$. This is

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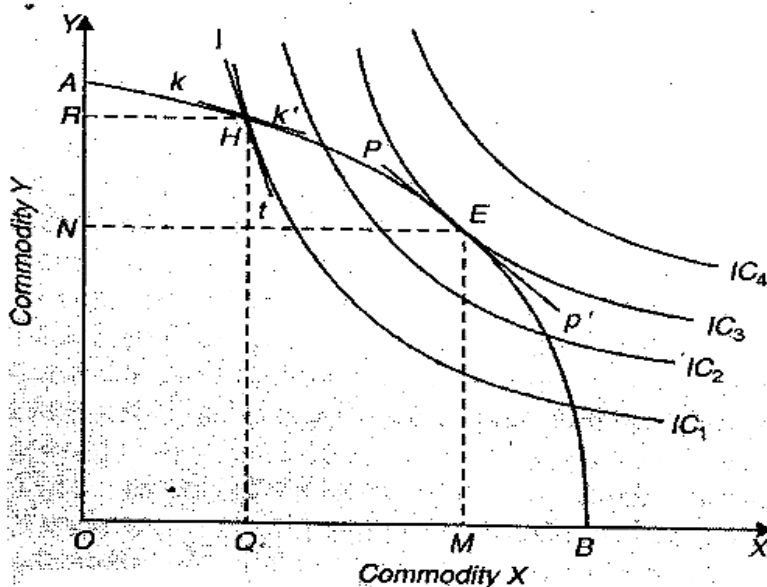


Fig. : Monopoly as an Obstacle to Maximization of Social Welfare

Source : Ahuja, H.L. Advanced Economic Theory

It can be seen from the figure that the transformation curve of the community AB is tangent to the community indifference curve IC_3 at point E. so at point E. MRT_{xy} of the community between two commodities is equal to MRS_{xy} of the community. Thus E represents the maximum possible level of social welfare and the combination of two commodities being produced (i.e. OM of X and on of Y) and hence optimum allocation of resources. But when the commodity x is produced under monopoly conditions, the equilibrium will not be at point E rather it will be at point H. Because under monopoly, producers will be equating MRT_{xy} or ratio of marginal costs $\left(\frac{MC_x}{MC_y}\right)$ with the ratio of marginal revenues $\left(\frac{MR_x}{MR_y}\right)$ and not with the ratio of prices of two goods $\left(\frac{P_x}{P_y}\right)$ since consumers would be equating MRS_{xy} with the price ratio $\frac{P_x}{P_y}$, MRT_{xy} in equilibrium position at H will not be equal to MRS_{xy} . At point H, transformation curve AB and consumer indifference curve IG, are intersecting each other. This implies that slope of the transformation curve AB is not equal to the slope of indifference curve IC, at point H. Rather at point H, $MRS_{xy} > MRT_{xy}$ as the tangent IT drawn to point H on IC, is steeper than the tangent KK' drawn to point H on transformation curve AB. So because the point H lies on lower indifference curve IC, the equilibrium condition under monopoly causes loss of satisfaction or welfare. It implies that monopoly equilibrium is not optimally allocating the resources to the production of commodity x according to the consumers' preferences. At point H, smaller quantity of x commodity i.e. Oq is produced and larger quantity of Y commodity is produced i.e. OR. Thus monopoly has caused misallocation of resources.

(iii) Public Goods and Market Failure

We have seen that even a competitive market fails to produce the socially optimal output when there are externalities. For goods with positive externalities, consumers make purchasing decisions based on the marginal private benefits, which are lower than marginal social benefits. Thus, the market produces a lower quantity than the social optimum. Private benefits may be so low that a good is simply not provided at all, even though production of the good would lead to positive net social benefits. Sometimes there may be another kind of good that will be undersupplied by the market and that is public goods. Now what are public

goods? Public goods benefit all consumers even though individual consumers do not pay for the provision of the good.

Now public goods have two characteristics. They are non-rival and non exclusive. A good is non rival if for any given level of production, the marginal cost of providing it to an additional consumer is zero. For most goods that are provided privately, the marginal cost of producing more of the goods is positive. But for some goods, additional consumers do not add to the cost. Consider the use of a highway during a period of low traffic volume. Because the highway already exists and there is no congestion, the additional cost of driving on it is zero or consider the use of a light house by a ship. Once the lighthouse is built and functioning, its use by an additional ship adds nothing to its running cost. National defense is also a non rival good. When one person in a community receives protection, the amount of protection available to other consumers is not reduced. Finally consider public television, clearly, the cost of one more viewer is zero.

By contrast, most goods in our daily life are rival in consumption. With a given level of production of a rival good, the consumption of the good by one person reduces the amount available to others. For example. If we buy a particular piece of furniture, can buy it. Goods that are rival must be allocated among individuals. Goods that are non rival can be made available to everyone without affecting any individuals opportunity for consuming them.

A good is nonexclusive if people cannot be excluded from consuming it. As a consequence, it is difficult or impossible to charge people for using non exclusive goods; the goods can be enjoyed without direct payment. Examples of nonexclusive goods are abundant, including national defense, public parks, television and radio signals and artwork in public places. Non exclusive goods need not be national in character. If a state or city eradicates an agricultural pest, all farmers and consumers will benefit. It would be virtually impossible to exclude a particular farmer from the benefits of the program.

By contrast an exclusive good is one to which consumers may be denied access. For example, automobiles are exclusive (as well as rival). If a dealer sells a new car to one consumer, then the dealer has excluded other individuals from buying it.

Some goods are exclusive but non rival. For example, in periods of low traffic, travel on a bridge is non rival because an additional car on the bridge does not lower the speed of other cars. But bridge travel is exclusive because bridge authorities can keep people away from using it. A television signal is another example. Once a signal is broadcast, the marginal cost of making the broadcast available to another user is zero ; thus the good is non rival. But broadcast signals can be made exclusive by scrambling the signals and charging for the codes that unscramble them.

Some goods are non exclusive but rival. An ocean or large lake is nonexclusive, but fishing is rival because it imposes costs on others; the more caught, the fewer fish available to others. Similarly hunting in public game areas is non exclusive because everyone has access to the game; however hunters reduce the stock of game left for others when they buy their quarry.

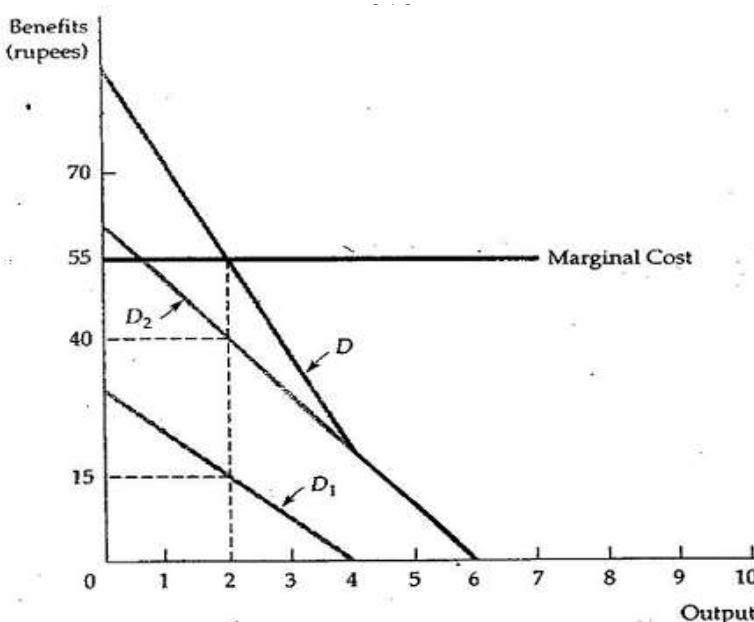
Public goods which are both non rival and non exclusive provide benefits to people at zero marginal cost, and no one can be excluded from enjoying them e.g. public broadcasting and national defense etc.

As we study public goods, to avoid confusion, it is important to keep in mind that many goods that are publicly provided (provided by the govt.) are not public goods, being either rival or exclusive or both. For example, because a public university has a limited capacity,

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- **Efficient Pro**

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Fig. : Efficient Level of Producing a Public Good

Source : Pyndic, Robert S. et. al : Micro Economics

In the fig, D_1 represents the demand for the public good by one consumer and D_2 the demand by a second consumer. Each demand curve tells us the marginal benefit that the consumer gets from consuming every level of output. For example, when there are 2 units of public good, the first consumer is willing to pay Rs 5 for the good, and Rs 15 is the marginal benefit of Rs 40.

To calculate the sum of the marginal benefits to both people, we must add each of the demand curves vertically. For example, when the output is 2 units, we add the marginal benefit of Rs 15 to the marginal benefit of Rs 40 to obtain a marginal social benefit of Rs 55. when this sum is calculated for every level of public output, we obtain the aggregate demand curve for the public good D .

The efficient amount of output is the one at which the marginal benefit to society is equal to the marginal cost. This occurs at the intersection of the demand and marginal cost curves. In our example, 2 is the efficient output level because the marginal cost of production is Rs. 55.

To see why 2 is efficient, note what happens if only 1 unit of output is provided. Although the marginal cost remains at Rs 55, the marginal benefit is approximately Rs 70. Because the marginal benefit is greater than the marginal cost, too little of the good has been provided. Similarly, suppose 3 units of the public good has been produced. Now the marginal benefit of approximately Rs. 40 is less than the marginal cost of Rs. 55; too much of the good has been produced. Only when the marginal social benefit is equal to the marginal cost is the public good provided efficiently.

Now the production of public goods will be advantageous only when these are produced by the govt. because the govt. can assess taxes or fees to pay for it. There are often thousands or even millions of consumers of public goods such as a dam, a public park or public broadcasting. To finance an efficient level of output for a public good, consumers must jointly agree that every one contributes an amount equal to his own willingness to pay. However, since the provision of a public good is non exclusive, everyone benefits once the public good is non exclusive, everyone benefits once the public good is provided. Consequently, individuals have no incentive to pay as much as the good is really worth to them. A consumer can behave as a free rider paying nothing for a good while anticipating that others will contribute.

Now if a private firm produces the public good, due to inability of the producer of a public good, due to inability of the producer of a public good to exclude those who do not pay and want to be free riders, the cost of optimal level of output cannot be covered by a private producer. There fore, in this situation, too little or even none of the public good will be produced though the marginal benefits of additional units (i.e. the value the individuals place on these additional units) exceeds the social marginal costs of producing these units. Thus the private production and functioning of market in case of public goods do not lead to parrot efficiency in the provision of the public goods or we can say that free rider problem makes it difficult for a private market to provide public goods efficiently and the market fails in this regard. It is generally easier to organize effective efforts to collect voluntary funding when the number of people involved in paying for a project is small because each person recognizes that his or her contribution is important. However, when the number of consumers becomes large. It is more likely that many consumers will act as free riders. So public intervention may be necessary to ensure the provision of a socially beneficial public good. The govt. therefore often produces a public good itself or subsidizes the enterprises that produce the good.

(iv) Asymmetric information and market failure

In the perfect competition model it is assumed that the sellers and buyers are perfectly and equally informed about the quality of goods being sold in the market and their prices. But this assumption is valid only if it is either quite easy to verify the quality of goods or it is not costly to ascertain which goods are of high quality and which goods are of low quality. In view of the known differences in quality of various goods, the different prices of the goods will then reflect the quality differences between them.

When it is not easy to know about the quality of goods or it is costly to get information about them and the buyers and sellers of goods are not equally informed about the quality of goods, then there is asymmetric information. Thus asymmetric information means the market situation when buyers and sellers have a different information or incomplete information while making a transaction. This is also one of the reasons for market failure or inefficiency in the market. The important example of market with asymmetric information is the market for lemons. In this market, the buyers and sellers have different information about the quality of goods being bought and sold. The word lemon is used to describe a defective or low quality

product. Let us consider the market for used cars. We assume that the used cars are of different quality. Some of them are of good quality and some are just lemons (bad quality). Now bad quality cars quite often break down and require a lot of repairs. However while the sellers of used cars fully know the quality of their cars, the buyers are uncertain about the quality of these cars due to lack of information. So the market for used cars is having both good quality and bad quality cars (lemons). But due to lack of information on the part of buyers the price of the used cars in the market depends on the average quality of the used cars offered for sale. This is because the buyers being uninformed about the quality of the

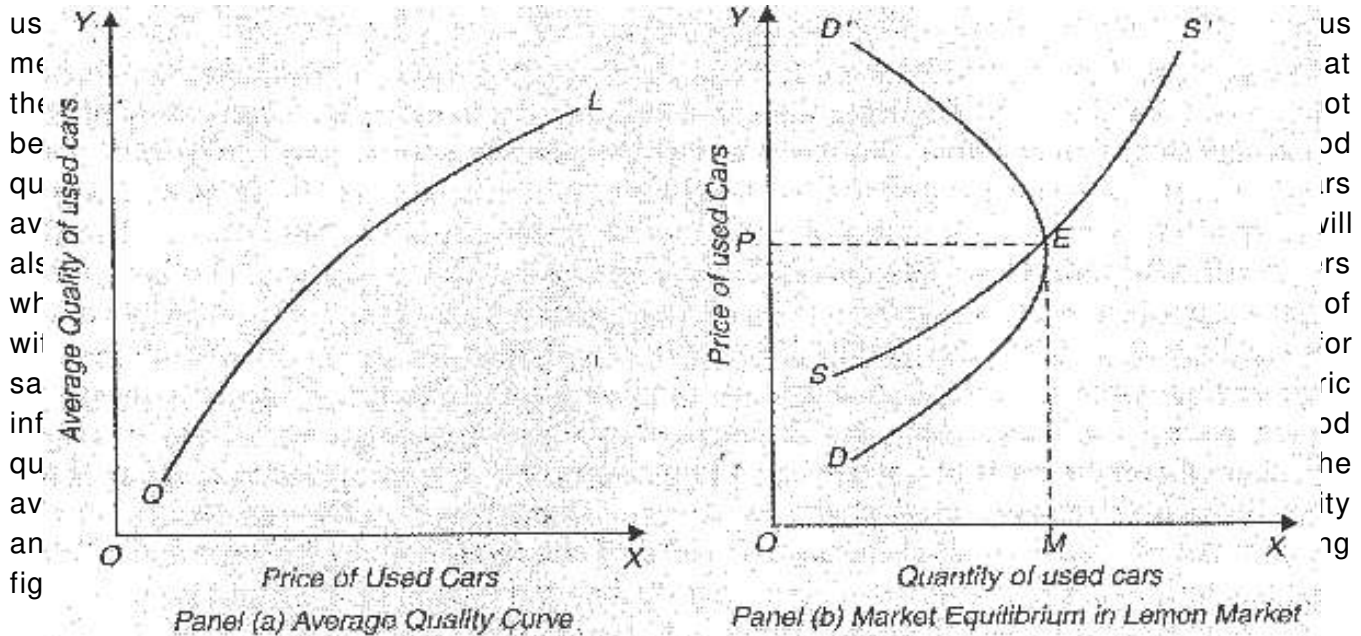


Fig. Market for Lemons

Source : Ahuja, H.L. op. cit, p. 1334

It part A, x-axis measures the price of the used cars and y-axis measures the average quality of these cars. It can be seen as price of used cars increases, the quality also increase. But as price falls average quality also falls because then good quality used cars will withdraw from the market. Therefore average quality curve QL of used cars slopes upwards to the right.

In part B, market equilibrium of the used cars is shown. SS' is the supply curve sloping up words. As price increases the number of used cars supplied in the market increases because good quality cars are also there in the market. DD' is the demand curve for used cars. It has a peculiar shape, sloping up words in the beginning but bends down words after a point. This is because with the price fall, average quality of used cars declines and quantity demanded also declines. This causes the demand curve to bend backward at lower prices of the used cars. Market equilibrium is reached at point E and price OP and quantity OM is determined.

So one consequence of asymmetric information is that there are relatively few buyers and sellers in the used car market. In some circumstances, the market for used cars may cease to exist when there is imperfect or asymmetric information. According to Stiglitz and Walsh, "The used cars market is a thin one, those who for one reason or the other want to buy a used car

always want to drive a better car. But mixed in with these are people who are trying to dump their lemons. The buyers cannot keep lemons apart from good cars. Rather than risk it, they simply do not buy". As a result, demand for used cars declines and so will the price. There is a vicious circle.

Hence Asymmetric information creates the lemon problems and drives good cars out of the market and thereby harms the welfare of the owners of good quality cars who want to sell their cars. Thus externality created by asymmetric information prevents the achievement of Pareto efficiency and creates market failure

Market failure can be corrected by state provision, extension of property rights, taxation, subsidies, regulation, prohibition, positive discrimination and redistribution of income.

However Nicholas Stern (1989) has summarized the reasons for market failure.

- (i) Markets may be monopolized or oligopolistic.
- (ii) There may be externalities.
- (iii) There may be increasing returns to scale.
- (iv) Some markets, particularly insurance and future markets, cannot be perfect and indeed may not exist.
- (v) Markets may adjust slowly or imprecisely because information may prove slowly or marketing institutions may be inflexible.
- (vi) Individuals or enterprises may adjust slowly.
- (vii) Individuals or enterprises may be badly informed about products, prices their production possibilities and so on.
- (viii) Individuals may not act so as to maximize anything, either implicitly or explicitly.
- (ix) Govt. taxation is unavoidable and will not or can not take a form which allows efficiency.

Todaro and Smith (2012) provides three general forms in which market failure can be observed. The market cannot function properly or no market exists, the market exists but implies an inefficient allocation of resources; the market produces undesirable results as measured by social objectives other than the allocation of resources. According to him; market failures can occur in situations in which social costs or benefits differ from the private costs or benefits of firms or consumers. Public goods, externalities and market power are the best known examples.

With public goods, he says. "free riders" who donot pay for the goods cannot be excluded except at high cost; it is economically inefficient to exclude non paying individuals from consuming these goods. With externalities, consumers or firms donot have to pay all the costs of their activities or are unable to receive all the benefits. Market power occurs when firms can influence price by restricting quantity, a power most common under increasing returns to scale.

Capital markets are particularly prone to failure due to their intrinsic connection to information generation and transmittal; Information has public good properties. Then a more equal distribution of income can also reflect a concern for the well being of future generations, who cannot participate in today's economic or political markets. Merit goods, such as health, education and basic welfare, can also be considered public goods or social entitlements guaranteed by government. But concerns about

distribution and merit goods are often treated as separate rationales for policy, because in themselves, their levels are generally viewed as outside the realm of economic efficiency.

10.4.2 Market failure in a dynamic economy²⁰

In general the less developed the economies, the more imperfect the information and hence the more prone they are to market failure. This problem is more serious in the dynamic process of economic development involving capital accumulation and technological progress. Unlike the static economy that is assumed by the neo classical school to prove the efficiency of the competitive market for one production period the dynamic development process over time is characterized by future uncertainty. The more uncertain the future is, the higher the risk is, and hence, the higher the discount rate on future revenues is, so the rate of investment in the market will be lowered. Uncertainty inherent in the development process may thus represent a major bottleneck for development itself. For example, assume that development of a particular industry in a developing economy, with importation of advanced technology, will contribute much to the growth of this economy in the long run. However, if importation of foreign technology and construction of production facilities take a long time and require a large investment, private entrepreneurs may hesitate to undertake such a project because of the high risk involved, despite a high probability of success. Moreover, efficient operation of new plants and machineries may require training of workers, engineers and management staff. A private firm may worry that other firms will recruit its workers, trained with its time and costs. This externality, together with the high risk involved, would make it difficult for private entrepreneurs to develop this new industry under a free market. From the side of investible fund supply, too, the possibility would be low for private financial institutions in developing economies to advance a sufficient amount of credit to such a risky long-term project.

From here emanates the argument of protection for infant industries. The main logic behind this is that it is necessary and desirable for govt. to protect 'infant industries' which have no chance of being established under free market competition at present, but are expected to be major contributors to the national development if they are protected until they grew to 'adults', able to compete in the free market. This infant industries protection can be promoted by such means as tariffs and other forms of border protection on domestic producers, allocations of subsidies and directed credits to target industries from state, owned financial institution, favourable tax treatment, and nationalization of private enterprises.

In fact, the theory of infant industry protection was advanced by Friedrich List (1789-1846) who expanded Ricardo's static theory to a dynamic theory applicable to the long-run development process characterized by major changes in the production cost structure. In other words, the theory of comparative advantage was incorporated into the economics of development by List who recognized the possibility of serious market failure in dynamic economies.

Main opposition to his argument came from Adam Smith's doctrine of free trade. He says, "though List correctly pointed out the possibility that long-term investment in new industries tends to be smaller than optimum in the dynamic process characterized by high uncertainty and externality. This market failure is especially serious in the early stages of development. However it is doubtful that he recognized the possibility that government intervention into the market for the sake of infant industry

²⁰ Yujiro Hayami and Yoshohira Godo (2005), op cit.

protection might produce government failure which could be more serious than market failure. This danger may be called the 'Listian trap.'

10.5 OPTIONS FOR GOVT. INTERVENTION IN MARKETS²¹

There are many ways in which intervention can take place. Below are given some examples.

- **Govt, Legislation and Regulation**

Parliament can pass laws that prohibit, for example, the sale of cigarettes to children, or ban smoking in the workplace. The laws of competition policy act against examples of price-fixing cartels or other forms of anti-competitive behaviour by firms within markets. Employment laws may offer some legal protection for workers by setting maximum working hours or by providing a price-floor in the labour market through the setting of a minimum wage.

The economy operates with a huge amount of regulation. The govt. appointed regulators who can impose price controls in most of the main utilities such as telecommunications, electricity, gas and rail transport. Regulation may be used to introduce fresh competition into a market for example breaking up the existing monopoly power of a service provider. A good example of this is the attempt to introduce more competition for British Telecom and also for the postal service industry. This is known as market liberalization.

- **Direct State Provision of Goods and Services**

Because of privatization, the state owned sector of the economy is now much smaller than it was twenty years ago. The main state-owned businesses in the U.K are the Royal Mail which is still subject to direct price controls and Network Rail state funding can be used to provide merit goods and services and public goods directly to the population. e.g. the govt. pays private sector health firms to carryout operations for NHS patients to reduce waiting lists or it pays private businesses to operate prisons and maintain our road network.

- **Fiscal Policy Interventions**

Fiscal policy can be used to alter the level of demand for different products and also the pattern of demand within the economy.

(a) Indirect taxes- Such as changes in VAT and excise duties can be used to raise the price of demerit goods and products with negative externalities designed to increase the opportunity cost of consumption and thereby reduce consumer demand to words a socially optimal level.

(b) Subsidies to consumers will lower the price of merit goods such as grants to students to reduce the internal costs of staying on in full-time education and subsidies to businesses employing unemployed workers on the New Deal Programme. They are designed to boost consumption and output of products with positive externalities, a subsidy causes an increase in market supply and leads to a lower equilibrium price level.

²¹ Geoff Riley. Etton college. Sep. 2006. Internet w.w.w. tutor 2 u. nets/economics/revision-notes/az-micro-marl.

(c) **Tax relief** – The govt. may offer financial assistance such as tax credits for business investment in research and development or a reduction in corporation tax designed to promote investment and employment.

(d) **Changes to taxation and welfare payments** can be used to influence the distribution of income and wealth for example higher direct taxes on rich households or an increase in the value of welfare benefits for the poor to make the tax and benefit system more progressive.

- **Intervention designed to close the information gap (make it small)**

Often market failure results from consumers suffering from a lack of information about the costs and benefits of the products available in the market place. Govt. action can have a role in improving information to help consumers and producers value the 'true' cost and/or benefit of a good or service. These programmes are really designed to change the "perceived costs and benefits of consumption for the consumer. They do not have any direct effect on market prices, but they seek to influence demand and therefore the level of final output and consumption.

Self Assessment Questions

1. Enlist these functions of the Market.

2. Name four reasons of Market Failure.

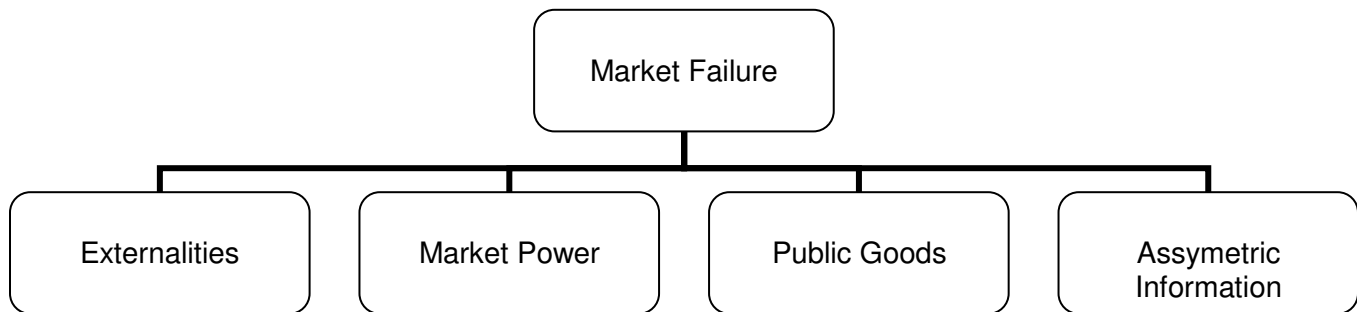
3. Mention any three ways in which govt. can intervene in markets.

10.6 SUMMARY

In this lesson, we have studied about the functions of the market, which can be classified as follows:

- (i) Allocation of given stock of consumer's goods.
- (ii) Allocation of production between commodities.
- (iii) Allocation of factors of production among their various uses.

In addition to this, we came across the concept of market failure which means a situation where market cannot function efficiently. The reasons for such types of situation can be summarized as follows:



Moreover, we studied about the correction of the market failure by state provision, extension of property rights, taxation, subsidies, regulation, prohibition, positive discrimination and redistribution of income. In the end of the lesson, we also studied about the state intervention in the market for removing the market failures.

10.7 GLOSSARY

- Competitive Market – It is the one in which a large number of producers compete with each other to satisfy the wants and needs of a large number of consumers. In this type of market, no single producer, or group of producers, and no single consumer or group of consumers can dictate how the market operates.
- Market Failure – In economics, it is a situation in which the allocation of goods and services is not efficient. That is, there exists another conceivable outcome where at least one individual may be made better off without making someone else worse off.
- Externalities – A cost or benefit arising from any activity which does not accrue to the person or organization carrying out the activity. Negative externalities cause damage to other people or the environment, for example by radiation, pollution or noise. Positive externalities are effects of an activity which are pleasant or profitable for other people who cannot be charged for them.
- Subsidies – Payments by the govt. to consumers or producers which makes the factor cost received by producers greater than the market price charged to consumers. Subsidies may be given on grounds of income distribution, to improve the income of producers or the welfare of consumers.
- Public Goods – A good that no consumer can be excluded from using if it is supplied, and for which consumption by one consumer does not reduce the quantity available for consumption by any other. The first property is referred to as non-excludability whereas the latter is termed as non-rivalry.
- Asymmetric Information – It is a situation where some participants in an economic transaction have access to more, or better, relevant

information than other participants. It is a source of market failure. Agents with superior information will attempt to gain advantage from this and inefficiency will result.

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10.10 MODEL QUESTIONS

- Q1. What do you mean by Market? How does it work?
- Q2. What are the important functions of markets?
- Q3. Explain the concept of market failure. What are the main reasons behind it?
- Q4. Do you think that govt. intervention is necessary for the market to work efficiently?

ON THE CHOICE OF ECONOMIC SYSTEM –II (ROLE OF THE STATE)

Structure

- 11.0 Objectives
- 11.1 Introduction
- 11.2 Role of the State
- 11.3 Government Failure
- 11.4 Reemergence of interest in markets
- 11.5 On the choice of Economic Systems
- 11.6 Optimum Solution
- 11.7 Washington consensus on the Role of the State
 - 11.7.1 Criticism of Washington consensus
 - 11.7.2 Poverty reduction as an immediate objective
 - 11.7.3 The Post-Washington consensus prospect
 - 11.7.4 Growth versus Equity
- 11.8 Recent Developments
- 11.9 Summary
- 11.10 Glossary
- 11.11 References
- 11.12 Further Readings
- 11.13 Model Questions

11.0 Objectives

After going through the lesson, you should be able to:

- describe the role of the state in an economy.
- explain the meaning of the term Govt. Failure and the reasons for it.
- give the reasons for reemergence of interest in the market recently.
- discuss about the choice of economic system in case of state failure.
- evaluate details of the Washington consensus about the role of the state.
- explain the recent controversy about the role of the market and the state.

11.1 INTRODUCTION

In the last lesson, we have studied about the role of the market mechanism in economic development and the conditions where markets fail. All these market failures in the past, particularly the Great Depression of the 1930s shook the confidence of the people in the market mechanism. This led development economists, governments of recently independent developing countries and many western countries facing reconstruction after world war II saw a major role for the state in the production process. The success registered by the planning experiment in the erstwhile soviet union and other socialist countries also strengthened the belief that state plays an important role in economic development. Consequently, underdeveloped countries, launching upon their programmes of economic development in the post-World War II phase, placed high emphasis on the state participation. In these countries, govt. produced plans for the sectoral allocation resources and took on more and more functions. Hence this lesson deals with the different aspects of the role of the state in economic development.

11.2 ROLE OF THE STATE

Since the origin of modern development economics in the 1950s. thinking about the state and economic development has gone through there phases. The first, most optimishic phase viewed the state as an essentially benevolent leader of the state as an essentially benevolent leader of there development process, an “omniscient social-welfare maximizer. The second most pessimistic phase views the state as a major obstacle to economic development, acting on behalf of narrow interest group or on behalf of politicians and bureaucrats rather than for the greater good. The third phase identifies wide variations in state performance and seek to explain them, focssing in particular on institutional determinants of “state capacity”, so that economic policies can be formulated and implemented without any corrupting influences. While today few specialists in development believe in a benevolent and omniscient state, no one doubts the value of knowing what the state should do if its main goal is to maximize social welfare. Nicholas Stern²² identifies five groups of arguments for state intervention in the economy.

- (i) Market failure – It may arise from many possible sources including externalities, missing markets, increasing returns, public goods and imperfect-information. All these are termed as market imperfections which can lead to market failure.
- (ii) A concern to prevent or reduce poverty and/or to improve income distribution.
- (iii) The assertion of rights to certain facilities or goods such as education, health and housing.
- (iv) Paternalism (relating, for example to education, pensions and drugs etc) and
- (v) The rights of future generations (including some concerns relevant to the environment)

Now so far as market imperfections are concerned, they refer to three important phenomena.

- (a) Market-prices may provide a very imperfect guide to the social optimum allocation of resources because they donot reflect the opportunity costs to the society of using factors of production, or the value to the society of the production of commodities. Monopolies, tariffs, subsidies and other imperfections in the market all distort free market prices upon which private producers base their production decisions (b) both positive and negative externalities exist in

²² Nicholas Steen, “Public Policy and the Economic of Development”. European Economic Review. 35 (1990); 250-51.

the market which means that some goods may be overprovided and the others underprovided from a social point of view because negative and positive externalities are not reflected in the market price. (The point is already discussed in the last lesson). So govts. Can curb negative externalities through regulation or taxation and promote positive externalities through subsidies or providing the output itself as with education and health care. (c) there may be incomplete or missing markets. In case of public goods, markets may be missing because of the inability of suppliers to exclude 'free riders'. i.e. to exclude the people from consuming the good that is provided in the market. Then high transaction costs can prevent markets from developing particularly in developing countries, where poor communications make information costs high and there is an absence of future markets to compensate for risk in conditions of uncertainty. (d) Incomplete and asymmetric information is another market imperfection which refers to the imbalance of knowledge in a market between buyers and sellers (already discussed in last lesson). So all these market imperfections can lead to market failure and the state can only remove all these market imperfections.

- Public goods are those goods which have certain characteristics that make it difficult, if not impossible to charge for them and therefore private suppliers will not provide them. (Thirlwal, 2011). There are two characteristics of these goods, according to him. Firstly, consumption by one user does not reduce the supply available for others i.e. the good is non-rival and secondly, users cannot be prevented from consuming the good i.e. the good is non-excludable. So the state can provide these goods. Then there are other goods which are very important from the economic development point of view. Such as defence, law and order and the provision of basic infrastructure ie. roads, railways, power supply, sewers and clean water etc. These are called the basic goods also. These goods have to be provided by the state because providers in the market either will not provide at all these goods due to high fixed costs involved in it or they will underprovide them despite the positive externalities contained by these goods.
- So far as removal of poverty and equity is concerned, the state has a very important role to play in protecting the vulnerables and ensuring an equitable distribution of income between people, across the groups and across the regions. For removal of poverty, two types of programmes i.e. employment programmes and programmes for the upliftment of the rural poor are devised and implemented by the govts. Removal of poverty is quite essential because there is not a moral case for the state to help those in absolute poverty, but also a strong political and economic one (Thirlwal, 2011, p,310) because poor, vulnerable and dissatisfied people can cause civil unrest and political instability which results in low investment and growth. Since there are extreme income inequalities in developing countries, widescale state intervention becomes quite essential.
- Moreover, most of the countries of the world are faced with the problem of regional imbalances and regional inequalities. Even the most advanced nations of the world, viz. USA has not been able to solve this problem and there are glowing regional disparities in the levels of development between the northern and southern states. In most of the other developed countries as well, regional inequalities and imbalances are present in substantial proportions. In underdeveloped countries, the problem in many of them has assumed such a magnitude that their very political and economic stability is threatened. What differentiates the problem of underdeveloped countries from that of the developed countries is the fact that whereas in the latter all inhabitants have an assured minimum level of subsistence and the concern of lagging regions is just to

'catch up' with the leading regions, but in the former the question before the lagging regions is a more basic one, ie. How to provide a minimum level of subsistence to their teeming millions. So to solve the twin problems of reducing regional disparities in economic development and providing a minimum level of subsistence to the people of backward regions, it becomes imperative for the state to devise and execute appropriate economic policies.

- Because of increasing social awareness in the present day world and the responsibilities of the state in promoting the socio-economic welfare of the masses the governments in the Third World countries are spending an increasing amount of resources on education, public health and family welfare measures. And since the private sector is always motivated by the profit motive, the expenditure has to be made by the state only. Effective steps have been taken by the governments in developing countries to increase the literacy rates and encouraging education at primary secondary and tertiary levels. For example, the Govt. of India introduced a minimum Needs programme (MNP) in the Fifth Plan. It was aimed 'to establish throughout the country a network of certain essential services on a coordinated and integrated basis' so that facilities like elementary education, rural health, nutrition, drinking water, provision of housing sites, slum improvement, rural roads and rural electrification could be provided in all states. Moreover, in the wake of population explosion which is taking place in most of the developing countries, family planning assumes paramount importance. And this type of programmes can only be undertaken by the state because additional number of children are considered an asset rather than a burden in these countries. So poor people do not try on their own to reduce the family size. So state has to step in and control the growth rate of population by giving certain incentives to the poor or by educating them in this regard.
- The state is also essential for providing the appropriate institutional environment for markets to flourish and operate efficiently. Now capital availability is a serious problem in the way of economic development but capital alone is not sufficient. This can be seen in the case of Middle-East-countries. Where capital resources are available in plenty but they continue to remain underdeveloped due to lack of the institutions required for economic development. Their social structures and attitudes are traditional. Institutional structures are characterized by rigid stratification of occupations, reinforced by traditional beliefs and values etc.
- So the state is playing an immense role in Third world countries to bring a qualitative change in backward social systems and traditional attitudes of people. In addition is spreading education and transport and communication facilities to improve mobility of factors of production etc. the state is making important contribution in developing banking institution, savings organizations and LICs etc. so that savings and investments in the economy can be taken to a higher level and rate of growth of the economy can be enhanced.
- Role of the state in strengthening the industrial base and agricultural base of the economy can also not be undermined. Because both these sectors require lumpy investments and the private sector neither has the resources nor the willingness to invest in these sectors, so state becomes responsible for their development (For details see Misra & Puri, Economics of Development and Planning, 2012).
- Finally, it is also important for the state to keep an eye on the welfare of future generations which may require altering the balance between consumption and investment in the present. There are a number of ways in which governments can intervene to discourage present

consumption and raise the level of investment for higher future consumption; viz, taxation, subsidized interest rates and public investment on society's behalf.

The above discussion brings out clearly the role and importance of state participation in the process of economic development in developing countries. But according to the world Development Report 1997 (dedicated to the topic 'the state in a changing world'), many developing countries are not performing their core functions properly. They are failing to protect property, to ensure law and order and to protect the vulnerable, all of which causes unrest and leads to a lack of govt. credibility. A survey of 69 countries carried out by this report shows that govt. credibility is higher in South and South East Asia and lowest in sub-saharan Africa and the states of the former soviet union, Investment and growth are positively related to credibility. The report says of Africa that many countries are 'trapped in a vicious circle of declining state capability and thus declining credibility in the eyes of their citizens-leading to increased crime and an absence of security affecting investment and growth.' It refers to a 'crisis of statehood' in Africa and a lower 'state capability' than 50 years ago. In contrast, it praises the countries of south East Asia because they have paid attention to the institutional framework for markets to fulfil their various roles in allocating and augmenting resources. State credibility is particularly important if developing countries are to attract private foreign investment.

So the world Bank outlines a two-pronged strategy for governments to increase both their credibility and effectiveness of the state: (a) governments must match the role of the state to its capabilities and not try to do much and (b) they must try to improve capabilities by reinvigorating state institutions. So far as the former strategy is concerned, state should concentrate on getting the basics right. These basics are; Law and order, maintaining macro economic stability, investing in basic social services and infrastructure, protecting the vulnerable and protecting the environment. But it is not necessary that all infrastructure and social services have to be provided by the state only. These activities can be privatized but with state supervision. In the recent times, as it is seen, privatization has gathered momentum throughout the world. And the main reasons behind this are generally poor economic performance of state-owned companies, the large deficits of public enterprises, and the promotion of competition to improve the delivery of services. After providing basics. If the state has the capability, it may intervene strategically in industrial policy as the Asian Tiger economies have done successfully. In these economies (Hong Kong, Singapore, Taiwan South Korea) success depended on the state and the private sector working in harmony with each other.

Latter strategy, outlined by the World Bank of improving the capabilities of the state and reinvigorating state institutions, the task is to provide incentives for public officials to perform better and reduce the scope for arbitrary action that could lead to poor decision-making and corruption. Which is a serious issue in many developing countries. A corruption perception index, based on surveys of business people, risk analysts and perceptions of the general public, is prepared by Germany based organization called Transparency International. It ranks countries on a scale 0 to 10 (the lower the index, the more is the corruption). Its 2008 report prepared for 180 countries shows that Denmark has the index value of 9.3 ranking 1st and showing the least corruption. Singapore stands at 4th position (9.2), Canada at 9th position (8.7) and U.S.A with index value of 7.3 stands at 18th position. So far as India is concerned, it stands at 85th position with index value of 3.4 only. Somalia is at the bottom, with index value 1.0 and with 180th position. As a whole, developing countries are the most corrupt which is affecting severely the functioning of these economies.

Corruption is defined by the World Bank as the abuse of public office for private gain. It includes three things-bribery, threats and 'Kick backs'. These are all aspects of rent-seeking behaviour that arise primarily because decisions over the allocation of resources are in the hands of politicians and govt. officials. The existence of licences, permits, regulations, subsidies and of course, taxes offer all scope for corruption which leads not only to inefficiency-particularly the discouragement to investment-but can undermine the legitimacy of government itself. (Thirlwal, 2011). According to him, by removing unnecessary regulations and bureaucracy, by increasing transparency and by paying higher salaries to the officials, scope for corruption can be reduced.

After discussing all this, a summary statement of the functions of the state as prepared by the World Bank Report (1997) is presented in the figure 1 given below.

Figure 1.

Functions of the State

	Addressing market failure			Improving equity
Minimal Functions	Providing pure public goods: Defence Law and order Public health Macroeconomic management			Protecting the Poor: Anti-poverty Programmes Disaster relief
Intermediate functions	Addressing externalities: Basic education Environmental protection	Regulating Monopoly: Antitrust Policy Utility & regulation	Overcoming Imperfect Information: Insurance Financial Regulation Consumer protection	Providing Social insurance: Redistributive Pensions Family allowance Unemployment insurance
Activist Functions	Coordinating private activity Fostering markets Cluster initiatives			Redistribution: Asset redistribution

Source: The World Bank, World Development Report 1997 (New York: Oxford University Press, 1997). Table 1.1.

According to the Report, the role of the state should match its capability. If capability is low, the state should confine itself to the basic functions i.e. pure public goods law and order & macro economic stability etc. If more capability, intermediate functions should be emphasized such as control of monopolies and management of externalities and finally with a strong capability, state can undertake more activist functions such as promoting new market through active industrial and financial policy as has been done in East-Asian economies.

Lately, Ghani and Lockhart (2008)²³ in their powerful book 'Fixing Failed States', outline ten key functions that the state should perform if its citizens are to survive and thrive.

- (i) To make laws, and to enforce the rule of law, to allow all sections of society to live in harmony.
- (ii) The control of violence.
- (iii) The appointment of uncorrupt administrators to oversee public bodies.
- (iv) The sound management of public finances.
- (v) Investment in human capital.
- (vi) The creation of citizens rights through social policy to ensure equal opportunities for all.
- (vii) The provision of infrastructure services.
- (viii) The creation and expansion of markets.
- (ix) The management of public assets, such as land, water rights and other natural capital.
- (x) Effective public borrowing

In case these functions are performed well, a virtuous circle of growth and development becomes possible but in case, some functions are performed badly, a vicious circle is generated which makes the sustained growth very difficult and leads to the state failure. According to Thirlwall (2011), there are 50 to 60 countries in the world, many in Africa, that hardly perform any function because their institutions and the rule of law have broken down. These are called failed states. Their economies have collapsed, people are entrapped in vicious cycle of poverty, and there is lack of even most basic services and protection.

11.3 GOVERNMENT FAILURE

Now the principal economic arguments for planning or role of the state given earlier i.e. Market failure divergences between private and social valuations, resource mobilizations, investment coordination and the like have often turned out to be weakly supported by the actual planning experience. Tony Killick²⁴ has noted that. "It is doubtful whether plans have generated more useful signals for the future than would otherwise have been forthcoming; governments have rarely, in practice, reconciled private and social valuations except in a piecemeal manner; because they have seldom become operational documents, plans have probably had only limited impact in mobilizing resources and in coordinating economic policies." To take the specific case of the market failure argument and the presumed role of governments in reconciling the divergence between private and

²³ Ghani, A and Lockhart c (2008). Fixing Failed states," A Framework for Rebuilding a Fractured world. Oxford university press.

²⁴ Tony Killick (1976). "Possibilities of Development Planning." Oxford Economic Papers. 41; 163-164.

social valuations of benefits and costs the experience of government policy in many LDCs has been one of often exacerbating rather than reconciling these divergences-government failure rather than market failure. (Todaro, 2012. p. 543).

Moreover, since the supply of public goods is determined through a political process, there is no guarantee at all that their supply will be socially optimal. It is true that short supply of public goods represents a major bottleneck to the growth of developing economies, but the danger of over supply of public goods also should not be overlooked. The supply of public good entails costs which are ultimately financed through taxation. If a government activity to correct a market failure entails higher budgetary cost than social gain from the corrective measure, it represents an over-supply of public goods. The problem is that government is an organization inherently prone to oversupply those public goods of relatively low social demand at the expense of those public goods vitally needed for economic development (Hayami & Godo, 2005). According to them, what matters to political leaders or politicians is to maximize their likelihood of staying in office. Towards this goal, budget allocations among various public goods are based not so much on considerations of their contribution to social economic welfare, but on calculations on the strength on enhancing political support. Hence, a public good, such as basic scientific research, which benefits society as a whole much greater than its cost, is likely to be undersupplied. Because its great benefit will be distributed widely among a large number of people in the future, it is unlikely that a strong pressure group will be organized for such public goods. In contrast, construction of local public infrastructure may be lobbied for very strongly, likely to result in an oversupply if it is expected to produce a large profit for a few contractors and/or a relatively small number of residents in a narrow local community.

Moreover, government is a monopolist of legitimate coercive power and has no danger of bankruptcy. In this organization, therefore, a strong incentive prevails to expand the organization for the sake of increasing the power and positions of bureaucrats. Since they command a large body of information, which ordinary citizens find difficult to access, they can easily manipulate the information to inflate the value of public goods they want to supply (such as exaggerating the danger of national security to increase the military). Also, government organizations are usually less efficient in the absence of profit incentives and bankruptcy incidence). These forces combine to produce oversupply of unnecessary public goods (Buchanan and Wagner, 1977).

Because bureaucrats and pressure groups are strongly resistant to any reduction in vested interests, it is not easy to shift budget allocations from one category of public goods to another in response to changes in social needs. As the result, it is common to find that oversupply of unnecessary public goods coexists with sheer undersupply of public goods critically needed for economic development. Such inefficient budget allocations that results in reduction in net social welfare can be called 'government failure.'

The govt. failure is not limited to misuse of budget, but arises from under regulations to bias resource allocations. There are many regulations that made positive contributions to such purposes as pollution control and safety when they were instituted, but later had socially negative effects. For example, the compulsory regular checking of automobiles by authorized garages in Japan made a high social contribution towards the safety of drivers and pedestrians as well as the control of noxious gas emissions when automobiles made in Japan were low in quality and prone to trouble. However, since the quality of cars has greatly improved, this has become a system to protect the vested interests of the authorized garages at the expense of automobile users. The danger is that the governments regulation tend to become entrenched when those with vested interests seek 'institutional rents' or excess profits

from regulations. Such rents are consumed for the sake of preserving the regulations. (Tollison, 1982)²⁵. Firms protected by a regulation raise funds and ballots to support politicians in exchange for their support on the preservation of this regulation. It is also common for firms to employ retired officials from regulating agencies. Through rent-seeking activities by bureaucrats and politicians as well as protected firms, socially negative regulations continue to be maintained and reinforced. Moreover generally, regulations are the source of corruption defined as use of public office for private gain (Bardhan, 1977: 1321). And this corruption at times is also responsible for the govt. failure.

Self Assessment Questions – I

1. Name three types of functions of the Govt.

2. Mention any three reasons for govt. failure.

11.4 REEMERGENCE OF INTEREST IN MARKETS

In recent years, there has been some disillusion with planning and the role of the state has come under increased scrutiny for a number of reasons. (a) there was the collapse of the former state planned communist countries of the soviet union and Eastern Europe. (b) State has faced the failure, in many developing countries to provide even the most basic public goods such as law and order and property rights and necessary social capital and infrastructure. Such as education and health etc. (c) In many African countries, civil strife has caused the collapse of the state thus leaving markets to operate in an institutional vacuum.

As a result of this disenchantment with planning and the perceived failure of government intervention many economists, some finance ministers in developing countries and the heads of the major international development organizations advocated increased use of the market mechanism as a key instrument for promoting greater efficiency and more rapid economic growth. U.S president Ronald Reagan made a famous reference to the “magic of the market place” in a 1981 speech at Cancun, Mexico. He says, If the decade of the 1970s could be described as a period of increased public sector activity in the pursuit of more equitable development, the 1980s and 1990s witnessed the reemergence of free-market economics as part of the ever changing development orthodoxy. (Todaro, 2012, p 545).

Among the early converts in the 1970s were some Latin American countries, including Chile, Uruguay and Argentina, although the state retained an active economic role. Others have since jumped on the free-market bandwagon, ranging from traditionally more market-oriented countries such as Kenya, Peru etc. to formerly socialist-inclined countries such as India, Sri Lanka, Jamaica etc. These countries have sought to reduce the role of the public sector and encourage the greater private sector activity under their domestic market liberalization programmes. In the international economy, they have sought to improve their comparative advantage by lowering exchange rates, promoting exports and eliminating trade barriers.

International organizations such as IMF and the World Bank have also advocated for free market approach. The IMF is requiring substantial market liberalization programmes and policies to

²⁵ Tollison. R. (1982); “Rent Seeking; A Survey.”, *kyklos* 35 (4)

improve comparative advantage and promote macroeconomic stabilization as conditions for access to its higher credit windows. On the other hand, World Bank also carefully scrutinizes its project lending to ensure that the projects proposed could not otherwise be undertaken by the private sector.

However Nicholas Stern (1989) gives a sum-marized view of some problems relating to state intervention in developing countries. These problems are listed below.

Some Problems of Government Intervention in Developing Countries

- Individuals may know more about their own preferences and circumstances than the government.
- Government planning may increase risk by pointing everyone in the same direction—thus making bigger mistakes than markets.
- Government planning may be more rigid and inflexible than private decision making because complex decision making machinery may be involved in government.
- Governments may be incapable of administering detailed plans.
- Government controls may block private sector individual initiative if there are many bureaucratic obstacles.
- Organizations and individuals require incentives to work, innovate, control costs, and allocate efficiently, and the discipline and rewards of the market cannot easily be replicated within public enterprises and organizations. Public enterprises are often inefficient and wasteful.
- Different levels and parts of government may be poorly coordinated in the absence of the equilibrating signals provided by the market, particularly where groups or regions with different interests are involved.
- Markets place constraints on what can be achieved by government; for example, resale of commodities on black markets and activities in the informal sector can disrupt rationing or other nonlinear pricing or taxation schemes. This is the general problem of “incentive compatibility”
- Controls create resource using activities to influence those controls through lobbying and corruption-often called rent seeking or directly unproductive activities
- Planning may be manipulated by privileged and powerful groups that act in their own interests, and planning creates groups with a vested interest in planning, for example, bureaucrats or industrialists who obtain protected positions.
- Governments may be dominated by narrow interest groups focused on their own welfare and sometimes actively hostile to large sections of the population. Planning may intensify their power.

But just as market failure does not always justify public intervention, so too government failure is not necessarily an argument for private markets. For example, in South Korea, the pohang steel. Company was publicly operated and highly efficient until its privatization in 2000, whereas steel Authority in India, also publicly owned and operated, has been a model of inefficiency. Similarly subsidized interest rates exist in both last Asia, where growth accelerated, and in Latin America, where it stagnated. In the same way, unproductive rent seeking activities can just as easily be found in poorly functioning private markets as in inefficient state operations. So simple judgements about the relative merits of public versus private economic activities cannot be made outside the context of specific countries and concrete situations.

11.5 ON THE CHOICE OF ECONOMIC SYSTEM

For several decades a debate has been raging in development economics on the relative virtues of free market as opposed to state intervention. With the help of analytical models of a market economy, the interventionists demonstrate what they consider serious instances of “market failure”-that is, the inability of a market economy to reach certain desirable outcomes in resource use. The protagonists of free markets, on the other hand, compile impressive lists of ill-conceived and counter productive policy measures implemented by the govts of different countries at various times, leading to wasteful use of resources in their economies.

With perfect markets and income distribution concerns set aside, there is a theoretical presumption in favour of the minimalist state. The assumptions required to generate the efficient market outcome are stringent, however and the very real possibility of market failure restores the case for interventionism. Indeed, much of the academic debate concerning dirigisme has been framed in terms of market failures. (A list of some of the market failures has been given by Stiglitz (1986), explained in the last lesson).

As a result of some of these market failures, the state's involvement in certain, well defined areas of economic management is widely accepted. For example, public goods arguments justify governmental provision of infrastructure, education and basic scientific research, while the existence of market power supports the case for competition policy. By the same token, other imperfections may not require offsetting action because their costs are outweighed by their benefits. These could include distortions associated with increasing returns to scale and technological growth. (World Bank, 1992).

Imperfect market arguments are equally applicable to developed and developing economies. There is however, a presumption that the extent of the failures may be greater in less advanced nations. This belief notwithstanding, it is important to realize that the existence of market failure does not necessarily provide a case for interventionism. This is because of the often more pernicious existence of ‘government failures’. Indeed, the greater potential for beneficial intervention in developing nations could be offset by the possibility of more widespread government failure.

The most recent and persuasive, arguments against activist economic policy have been cast in terms of likely government failures. Instead of correcting market imperfections, governments have been charged with introducing “distortions”, defined as departures from optimality as a result of the intervention. Indeed, Lal has gone so far as to claim: “Most of the serious distortions in the current workings of the price mechanism in the third world countries are due not to the inherent imperfections of the market but to irrational government interventions---” (Lal, 1983) quoted in Killick (1989)²⁶

As is the case of market failure, government failures can arise through a variety of circumstances. Each of these imply some departure from the notion of the benevolent state, favoured by early development theorists, which uses appropriate information, knowledge and policy instruments to intervene in an optimal fashion from society's view point. Most fundamentally, the application of “public choice” theory to economic policy making suggests that state bureaucrats will act to further their own interests rather than those of wider society. Though politicians and bureaucrats are agents for citizens they must endeavour to do their best to serve the welfare of the nation, yet it is common that these agents yield to the temptation of placing higher priority on their own profit than on the people's or even their own nation's welfare. Such ‘moral hazards’ are not uncommon in the agency contracts in the

²⁶ Killick T. (1989). “A Reaction Too Far: Economic Theory and the Role of the state in Developing countries.” Overseas Development Institute.

private sector, such as financial agents managing entrusted funds for their own profit not for customers profits. These moral hazards, characterized by information asymmetry, can be a major source of market failure. (Hayami and Godo, 2005). This problem is even more serious as a source of governmental failure, according to them. In principle, they say, that citizens should be able to discharge politicians and bureaucrats who commit moral hazards (through voting etc). But politicians and bureaucrats cover up their moral hazards often in collusion with private firms under their patronage, by manipulating information under their monopoly. Contrarily, cost is usually very high for an ordinary citizen to detect moral hazards in govt. agencies, though gains to the nation as a whole from his activities may be much larger than the cost involved. So activities required to prevent moral hazards in govt. are significantly smaller than is socially desirable. In contrast, political activities by small groups seeking institutional rents from socially negative controls and regulations are intensive. As a result, social loss arising from govt. failure often exceeds that from the market failure.

11.6 OPTIMUM SOLUTION

As has been seen that both the market and the state are indispensable for allocating resources. The major task in choosing an economic system is to find the proper combination of markets and state by clearly recognizing possible failures of these two organizations. (Hayami & Godo op cit).

Although the market operates inadequately in many spheres, it performs an important function disciplining producers against wasteful use of resources. Then, in a changing world, the required institutional changes in the markets do not always take place automatically. The state can play an important role in promoting and supporting the right kind of market institutions. Moreover, principal function of a market organization is to institute rewards and penalties around economic activities. It is important to remember that any economic system must have such schemes of rewards and penalties to guard against wasteful use of resources. Therefore an activist government needs to strengthen the market institutions so that it can influence the behaviour of economic agents effectively. In those spheres where market signals alone are not effective guides to desirable actions, appropriate non-market/government institutions are required to be created. Thus, the market-versus-government dichotomy is a fake one.

At the same time, the potential danger of government failure in designing and implementing appropriate development policy is also widely understood. The World Bank (1992), in fact, has argued that the recent record of industrialization in developing countries is replete with examples of government failure. This, in turn, has led to a more practical approach to determining the desirable extent of intervention. Thus, the existence of a market failure no longer implies on a priori case for corrective action. Instead a comparative advantage or cost-benefit method has been recommended that compares the relative merits of state and market-led solutions. Killick has produced a good summary of this argument: "since the essence of the problem is one of balancing market failures against state failures, of calculating the costs of state inaction against the costs of state intervention the solution which suggests itself is that the respective roles of the public and private sectors should be determined by the comparative advantages of each (Killick, 1989).

Talking about the high performing East Asian economies, he says, "what distinguishes the use of state power in these economies is that government intervened in accordance with market opportunities, national economic management was independent of interest groups, govt-was capable of undertaking an entire set of appropriate policies (especially monetary and fiscal as well as industrial), govt and business had close consultations and policy instruments were used promotionally rather than restrictively.

From the experience of the high-performing economies, we can conclude that the most important questions about the role of the state are not how large should be the public sector or how much govt. intervention there should be, but rather what kind of intervention. What can govt. do best? And in what types of policy instruments does govt. have a comparative advantage? Answers don't point to a minimalist state, but rather to a shift from policies of planning and control to policies that work through markets. (Tony, Killick, 1990).

A similar interpretation of market friendly interventionism is given by Christopher Colclough and James Manor²⁷. They say that the problem is not "too much government" but too much of government doing the wrong things." The task is to dismantle the disabling state-and-establish the enabling state."

So far as the developing economies are concerned in particular, World Development Report (1991) also endorsed this point of view and suggests that governments need to do less in those areas where markets work, or can be made to work, reasonably well. But in those areas, where markets cannot be relied upon, the govts should continue to work and work more effectively. Above all, this implies, "investing in education, health, nutrition, family planning and poverty alleviation; building social, physical, administrative, regulatory and legal infrastructure of better quality; mobilizing the resources to finance public expenditure; and providing a stable macroeconomic foundation, without which little can be achieved." The Report also emphasizes the role of governmental intervention in protecting the environment. This would require appropriate policies such as proper pricing of resources, clearer property rights and resource ownership, taxes and controls on pollution and investing in production alternatives. This approach to the role of the state is clearly reflected again in the World Development Report-1997. The report states, "the state is central to economic and social development, not as a direct provider of growth but as a partner, catalyst and facilitator." (WDR, 1997. p 128)

According to Hayami and Godo (2005), "market failures, in the less developed economies are pervasive and serious, thereby apparently demanding strong govt. action to correct them. However in these economies, the citizens educational level is low and mass media for public opinion formation is underdeveloped. Correspondingly, the civic tradition of political participation and sense of national integrity are not well established among people. Under such social conditions the possibility is greater for govt. failure to become more serious than market failures. With the recognition of this possibility the choice of an optimum combination between market and the state under given historical conditions is most fundamental in the design for development.

Now, markets in developing countries are subject to widespread imperfections and thus special concerns for economic development. Thus market mechanism can fail. But this does not mean that these countries should not rely more on market to allocate their products and resources. (Todaro, 2012). He says, "no central planning agency is capable of regulating the vast-array of goods and services, nor would this be desirable. Rather it means that greater and more effective cooperation between the public and private sectors is required. It also means that govt. must seek to determine in which areas the market can most efficiently operate and in which areas the govt. itself can achieve the best results given its own limited human resources."

Hence from the foregoing arguments it becomes clear that both markets and the state have their own advantages and reasons for their failures as economic systems. So a judicious mix of both

²⁷ Christopher Colclough and James Manor (eds) – State or Markets? (1991) p. 276-77 quoted in G.M. Meier & J.E. Rauch (ed) 2006, Leading Issues in Economic Development.

the systems is desirable so as to achieve successful of economic development but functioning of both the system has to be improved.

11.7 THE WASHINGTON CONSENSUS ON THE ROLE OF THE STATE

During the 1980s debt crisis, it was argued in Latin America that most of the problems in the region developed due to their refusal to embrace what was regarded as motherhood and apple pie in the developed countries. As a result of this, during the second half of the 1980s policies began to change in one Latin American country after another, With the overcoming of this debt crisis about fourteen years ago and as the Berlin wall came down, a historically unusual degree of consensus emerged about the main elements of the policy agenda that Latin American countries needed to pursue just like the OECD countries. It was argued that Latin American countries needed to stabilise, to open up their economies to trade and FDI, and to liberalise.

The term 'Washington Consensus' arose as a by product of that change. This consensus, encapsulated by John Williamson, reflected the free market approach to development followed in 1980s and early 1990s by the IMF, World Bank and the key U.S. government agencies. It contained ten points which are mentioned below.

(i) Fiscal Discipline : This related to those countries which were characterised by large deficits that led to balance of payments crisis and high inflation that hit mainly the poor because the rich could park their money abroad.

(ii) Reordering Public Expenditure Priorities : This suggested switching of the expenditure in a pro-growth and pro-poor way, from things like non-merit subsidies to basic health and education and infrastructure.

(iii) Tax Reform : Constructing a tax system that would combine a broad tax base with moderate marginal tax rates.

(iv) Liberalising Interest Rates: It could lead to financial, liberalisation with prudential supervision.

(v) A Competitive Exchange Rate : This implies an intermediate regime; in fact Washington was already beginning to edge towards the two-corner doctrine which holds that a country must either fix firmly or float 'cleanly.'

(vi) Trade Liberalisation: Though there was difference of opinion on the point how fast it could be achieved but there was general agreement that it was the appropriate direction to move.

(vii) Liberalisation of Inward Foreign Direct Investment: It did not include comprehensive capital account liberalisation because that did not command a consensus in Washington.

(viii) Privatisation : This was the area in which what originated as a neoliberal idea had won broad acceptance. The main question here is: How privatisation is done. It can be a highly corrupt process that transfers assets to a privileged elite or a fraction of their true value, but the evidence is that it brings benefits when done properly and the privatised enterprise either sells into a competitive market or is properly regulated.

(ix) Deregulation: This focussed specifically on easing barriers to entry and exit, not on abolishing regulations designed for safety or environmental reasons.

(x) Property Rights: This was primarily about providing the informal sector with the ability to gain property rights at acceptable cost.

The ten points of the Washington Consensus as discussed above had to face criticism because it was argued that it did not make any mention of shared growth or of the central need to focus on eliminating absolute poverty to achieve development in any meaningful sense or of reducing inequality, as central ends in themselves as well as instruments of economic growth. According to Todaro & Smith "Driving the several components of the consensus was the conviction that government was more likely to make things worse than better. It was also viewed that poverty would be taken care of by growth and was not a major obstacle in itself to growth and development while this view is no longer considered adequate by most development specialists.* He says the list of Washington, consensus is striking in its free market approach even in fields in which market failure is prevalent, such as the financial sector. Then it is having limited applicability to the most successful cases of economic development, South Korea and Taiwan because these cases represent not only the highest rates of economic growth over the past half century but also have often been cited as example of shared growth, in which absolute poverty was eliminated early and lower income groups have continued to benefit from the development process despite an upturn in inequality since the late 1990s. According to them the historical record for high growth in China is shorter, but in any case is not a paragon of the free market. So it can be concluded that the state has had a broader role in the most successful experiences than encapsulated within the Washington consensus.

11.7.1 Criticism of the Washington Consensus

Washington consensus was understood as an economic doctrine in support of SAP under the guidance of the IMF and the World Bank. The early success of SAP in containing the Latin American Debt crisis elevated the consensus to the status of a paradigm but its credibility was sharply reduced by the failure of the IMF in applying SAP to the recurrent crisis in Argentina and to the Asian Financial crisis. It is said that if IMF had guided the Argentina Govt. according to the principles of Washington Consensus, especially numbers 1 & 5 the tragedy in 2001 would have been avoided. Thus failure of the Washington Consensus as the guiding principle of international development assistance should not be inferred from the failure of the IMF led structural adjustment policy in the late 1990s and early 2000s. On the contrary, if adherence to the consensus in pursuit of SAP had been more faithful and complete, perhaps more adequately adjusted for country specific cultural and social conditions, then middle-income economies in Asia and Latin America would more satisfactorily have been set on track towards genuinely sustainable economic, development.

A more valid criticism of SAP is its apparent inability to promote growth and reduce poverty in low-income economies, particularly in the areas of sub-Saharan Africa. From 1987 to 1996, in the hey day of the SAP, the number of people living below the poverty line of one US dollar per day in sub-Saharan Africa increased by one-third and nearly half of the total population continued to live below this poverty threshold. In South Asia the region home to the largest population below the poverty line, the share of the people living on less than one dollar per day decreased but the absolute number continued to increase (World Development Report; 2000/2001). Even in some middle-income economies, mass poverty persists, especially in the country-side remote areas. The rapid pace of globalization has made the problems of these areas visible to all. The sustained poverty revealed has inevitably become a major public concern, hurting the humanitarian conscience of affluent people and escalating the frustration of the poor people to levels of desperation and violence. The disappointing performance of SAP in achieving economic growth in low-income economies at speeds sufficiently rapid to reduce poverty significantly cast doubt on its relevance as a strategy of international development.

Serious doubt has also been cast on the basic premise of the Washington consensus, improvement in economic efficiency through the mechanism of the free market, and on the SAP

approach which it supported. Sheruru Ishikawa (1994) and Joseph Stiglitz* (2002), among others, argue that while the SAP approach may be effective in middle-income economies with relatively well-developed market organizations it is ineffective in 'customary economies' characterized by an underdeveloped market, where markets are highly imperfect or even non-existent under severe information imperfection. The SAP reforms of liberalization, deregulation, and privatization not only fail to improve such economies but often make them less efficient with an increased incidence of market failure. For this reason, contrary to the SAP prescription, active govt, intervention in resource allocation, including the promotion of infant industries by such means as border protection, subsidies and state enterprises, is essential for the development of these economies.

The general perception, conveyed under the influence of the Washington Consensus, that the free market system is broadly and universally efficient in enchanting economic growth has also wanted. A major contributing factor is emphasis being placed on the critical importance to economic development of appropriate institutions, institutions which differ across economies on different historical paths. Some illustrative examples in this regard are available viz. Malaysian escape from the Asian financial crisis by strengthening Govt. regulations on international capital movements and remarkable economic growth performances of some transition economies such as China and Vietnam, under much stronger govt, command and guidance than in traditional market economies.

These arguments and examples have made the development assistance community increasingly aware of the need to incorporate into the design of development policy country- specific institutions base on a proper understanding of cultural values and social norms as well as development stages. This awareness of the critical importance of institutions in recipient countries has become one of major pillars of a new paradigm of international development assistance, characterized by Joseph Stiglitz as the 'post-Washington Consensus'.

11.7.2 Poverty reduction as an immediate objective

Another major pillar of the post-Washington Consensus is the identification of poverty reduction as an immediate objective of development assistance rather than a consequence of the economic growth, the assistance is designed to stimulate. By nature, market competition is a strong instrument for increasing economic efficiency but not an instrument for improving equity. If poverty reduction is considered an overarching immediate objective, non-market instruments may have to be used to redistribute market-produced income in favour of the poor. Moreover, if poverty is viewed not simply as receipt of a less than socially allowable minimum subsistence income, but also as a restriction in human capability in the sense used by Amartya Sen (1999), then social services such as education, health and social safety nets must be delivered to the poor through non-market channels. Linking these two pillars brings to the fore the importance of non- market institutions such as govt. and civil society.

The Washington Consensus did recognize the important role of government in supplying social services such as education and health care. However, the post-Washington Consensus went even further in recognizing also the possibility of govt. corruption and collusion such that poor people would be excluded defecto from access to these services. To counter this possibility the new paradigm emphasizes strengthening the voice and power of poor people (empowerment) and maximizing the initiative of aid-recipient communities (ownership) in the design of development assistance.

Under the SAP regime poverty reduction continued on the agenda of the World Bank, realizable through the instrumentality of economic growth. But as SAP and the Washington Consensus ebbed, poverty reduction ceased to be an adjunct of growth and became an immediate goal, in itself. The shift can be seen in a comparison of the World Bank's World Development Report 1990 subtitled "Poverty"

and The World Development Report 2000, subtitled “Attacking Poverty”. The former, while highlighting poverty reduction and spotlighting the importance of people, still just prosed poverty reduction with growth.

According to the report, an effective poverty reduction strategy would consist of (a) making production system as labour intensive as possible for increasing labour employment and income; (b) increasing govt. expenditure on training and education to increase the capacity of the poor to participate in the economy; (c) providing social safety nets for those who cannot be productive. On the other hand, World Bank Report 2000 put poverty reduction in human development terms and stressed the development of pro poor institutions that could promote opportunity, facilitate empowerment and enhance security.

The Banks’ operational shift to the post Washington Consensus was officially endorsed by James Wolfensohn, appointed president of the World Bank Group in 1995. He declared the Bank motto to be ‘our dream is a world without poverty’ and began to purpose ‘pro-poor’ development. He re-oriented the organization towards poverty reduction under three axioms (a) the overarching goal of development assistance is poverty reduction; (b) poverty is more than lack of purchasing power but include a range of economic, social and political deprivations; (c) poverty reduction will not be possible in the absence of viable institutions through which people can participate in and take ownership of the development process. By adopting this platform, social and political ramifications, which the Washington Consensus had avoided, were embraced by the Post- Washington Consensus.

The methodology for implementing the post-Washington Consensus was an array of interlocking, mutually reinforcing processes. Collectively they have come to be referred to as the PRSP process. RSP stands for poverty reduction strategy paper’ which is a comprehensive, detailed document prepared by a developing country explaining its own plan for reducing poverty. The strategy is prepared with full participation by the govt. and is expected to engender a sense of ownership and commitment to the objectives. So govt. has to play the lead role in PRSP preparation, a factor which was ignored by SAP, but is given due weightage in this PRSP process. Though the process has been initiated by the World Bank, it has been widely accepted at all levels of development effort and most of the aid agencies have incorporated it or otherwise made it compatible with their own programmes.

The four core elements which must be included in the PRSP process are (i) a description of the country’s participatory process; (ii) a poverty diagnosis (iii) targets, indicators and monitoring systems; and (iv) priority public actions, which should be summarized in tabular form for a three-year time horizon. PRSPs are the basis for confessional assistance from both the IMF and the Bank, including debt relief under the HIPC (Heavily indebted Poor Country) initiative so that its acceptance by the joint World Bank/IMF assessment committee is very important. That step involves an examination by the committee, which looks at a number of items according to the particular country including such considerations as : adequacy of poverty data; medium and long term poverty reduction goals; provision of adequate monitoring systems; a macro economic framework that it does not undermine the private sector but is consistent with the poverty, reduction, only the policy environment, allowance for a safety not fiscal choices and the financing, plan (domestic and external flaws, including aid).

The dramatic shift in the orientation of the World Bank’s activities has been reflected by changes in other international organizations with mandates for international development assistance. In the mid- 1990s, the Organization for Economic Cooperation and Development (OECD) formulated a list of quantified goals to be met by a set date, the International Development Targets (1DTS). In 2000, the United Nations adopted essentially the same list as its Millennium Development Goals (MDGs) as follows:

- (i) Eradicate extreme poverty and hunger Halving between 1990 and 2015, the proportion of people whose income is less than one dollar a day and the proportion of people who suffer from hunger.
- (ii) Achieve universal primary education - ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.
- (iii) Promote gender equality and empower women-eliminate gender disparity in primary and secondary education, preferably by 2005 and to all levels of education no later than 2015.
- (iv) Reduce child mortality, - Reduce by two-thirds, between 1990 and 2015, the under live mortality rate.
- (v) Improve maternal health - Reduce by three-quarters between 1990 and 2015, the maternal mortality ratios.
- (vi) Combat HIV/AIDS, malaria and other diseases. - Have halted by 2015 and begun to reverse the spread of HW / AIDS and the incidence of malaria and other major diseases.
- (vii) Ensure environmental sustainability Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources; halve by 2015 the proportion of people without sustainable access to safe drinking water; and by 2020 have achieved a significant improvement in the lives of at least 100 million slum dwellers.
- (viii) Develop a global partnership for developments.

All the goals specified above are related to quality of life and no target is stipulated for economic growth, reflecting the current mode of the development assistance community to set poverty reduction as the immediate goal rather than the consequence of economic growth. These goals have been incorporated into the PRSP by the World Bank under an initiative termed “MDG+” so that achievement of the goals will be provided for in the programme that the PRSP details Nonetheless, with the scarce data on human resources of developing economies, it is extremely difficult to design and implement various projects consistently within an integrated poverty alleviation programme at the national or regional level.

11.7.3 The post-Washington Consensus prospect

By the first years of this millennium the post-Washington Consensus has become firmly established as the principal guidepost to policies for developing economies. In the context of theory, while the Washington Consensus was confined rather narrowly to standard neo-classical economics, relying on market competition for efficient resource allocation, the post-Washington consensus broadened the scope to include non-market factor such as social norms and power balances, drawing heavily on the recent achievements of institutional economies. As such, the Post-Washington Consensus may appear to be a better recipe for developing economies characterized by underdeveloped markets. But is it really so?

Ishikawa (1994) and Stiglitz (2002) criticized the SAP reforms by saying that reforms to reduce govt. control and intervention will be ineffective or even damaging in low-income economies. According to. them, market failures arising from such reforms will inevitably be very large where the market is highly imperfect under the severe information imperfection. But their argument, though theoretically

valid, has been refuted on the grounds that in the economies characterized by high degrees of information imperfection, govt. failures may be even more damaging than market failures.

The Washington Consensus emerged as an antithesis to the import substitution industrialization strategy. It aimed to correct the govt. failures that loomed large under the ISI regime. Similarly, the post-Washington Consensus is an antithesis to the SAP strategy, aiming to correct the failures of liberalized markets by increasing the govt. role in resource allocation. So whether to increase the role of govt. relative to market or vice-versa is an eternal topic in debates over policy choice for development. The net social gain from the replacement of one strategy by another is the sum of differences both govt. failures and market failures associated with the two strategies, a sum which varies country by country depending on social tradition and development stage. Thus in contemplating the strengthening of govt. role for any developing economy along the guidelines of the post- Washington Consensus, corresponding changes in the respective failures must be assessed very carefully and objectively. If the decision is based on an ideological preconception, it will prove to be devastating.

11.7.4 Growth Versus equity

So far as growth and equity are concerned, the two consensus are different. By identifying poverty reduction as an immediate goal instead of a consequence of economic growth, the post-Washington Consensus advocates that a greater share of public resources be allocated for the delivery of social services to the poor rather than for strengthening the productive capacity of the economy. The MDGs stipulate no target for increased production or productivity of any sort. Though not explicitly stated, it appears that programmes in the post-Washington Consensus context are strongly oriented toward improving the quality of life of the poor through redistribution of social income in their favour.

There is nothing wrong with this equity orientation if it is consistent with the social preference of the world community. There is a risk, however, that strong emphasis on social services might result in under-investment in the productive capacity of the sectors from which the poor earn their livelihood. Typically, the majority of the people live mainly on returns of their labour applied in agriculture, small scale manufacture and petty trade. If the productivity and profitability of these sectors are not increased, how can poverty reduction be sustainable? The wide diffusion of primary education and health care, as emphasized in MGDs and other pro-poor development plans, is of course an indispensable foundation for upgrading the productive capacity of people. However, vitally important vocational education and training to support the development of agriculture, small scale manufacture, and commerce are being neglected or - receiving insufficient attention. The critical need for public investments in production-oriented infrastructure in general is not being properly emphasized. This is true, for agricultural, for industrial research and extension to produce and disseminate profitable technologies to small farmers and manufacturers, for irrigation and rural electrification to make water and power available to them, and for roads and communication systems by which producers and traders in remote marginal areas can have access to wide markets. All such investments generate economic growth while at the same time contributing directly to the reduction of poverty. Here there is no trade-off between growth and equity.

It is important to recognize that significant decreases in development assistance on production infrastructure and services did not begin with the post Washington Consensus but began under the Washington Consensus. With this strong belief in the efficiency of the market mechanism, the Washington Consensus advocated leaving investments in production infrastructure to private funds mobilized by the market, which was considered possible so long as the proposed investment projects could be expected to yield high economic returns. Correspondingly, investments in hard infrastructure, such as roads, railways and electricity, were largely removed from the list of development assistance

projects. Even agricultural research and irrigation investments, which are vital to billions of poor farmers, were curtailed. The advocacy for leaving production infrastructure to private initiative was a reasonable corrective to the bias of ISI strategy of concentrating development resources in large-scale, capital intensive industries, but it is critically flawed when applied to infrastructure critical to small farms, cottage industry and petty trade. Their production scale is too small to internalize gains from any infrastructure project adequate to pay its cost. And they are too numerous to effectively organize collective actions for producing their own infrastructure. As such the public good characteristics of production infrastructure and services are no weaker than those of social services to them. Therefore, the supply of production infrastructure critically need for the support of their economic activities cannot rely on private markets alone.

As most clearly elucidated by Schultz, broad-based growth of low income economies is possible only when public programmes supply profitable production opportunities for poor people. Indeed, the failures of both ISI and SAP in supplying sufficient support, to these production activities is believed to underlie their failures in achieving both economic growth and poverty reduction in low income economies over the past half century. The success of East Asia, on the other hand, in supporting the production activities of the poor people, is considered to distinguish it from the other regions such as Africa and underlie its economic miracle. At the same time, the importance of delivering social services to the poor for improving the quality of their lives cannot be over emphasized. However, if poverty reduction programmes under the-influence of the post Washington Consensus are so structured that public resource allocation for the supply of social services becomes so disproportionately large that it results in under investment in production oriented infrastructure and services, then such programmes are likely to prove counter productive to the goal of poverty reduction itself. Unless this risk is duly recognized and avoided, the current bond wagon of poverty reduction may well replicate the fate of the equally enthusiastic Basic Human Needs approach which was adopted almost three decades ago.

11.8 RECENT DEVELOPMENTS

Washington consensus has witnessed a major change in recent years not only in Washington but elsewhere also. This change in the views has been referred to as the 'New Consensus' or "Santiago Consensus" by world Bank President James Wolfensohn and others. Emphasis has been given to the positive role of the state in this consensus. The broad elements of this consensus are mentioned below,

- (a) Development must be market based but there are large market failures that cannot be ignored.
- (b) In general, there should not be direct intervention of the government in business of direct production.
- (c) Government can certainly play an eclectic role in the following fields.
 - (i) providing a stable macro environment;
 - (ii) infrastructure, though in the fewer sectors than thought necessary in the past;
 - (iii) public health, education and training;
 - (iv) technology transfer (including R & D for advanced LDCs).
 - (v) ensuring environmentally sustainable development and ecological protection;
 - (vi) providing export incentives;
 - (vii) helping the private sector to overcome coordination failures;

- (viii) ensuring “shared growth, reduction of poverty and inequality and substantial share of the poor in benefits from the growth of the economy;
- (ix) more moderate regulation and support in financial sectors;
- (x) provision of fundamental public goods, such as legal structure, including the protection of property rights

According to this consensus, poverty alleviation is mainly the responsibility of the government and one reason for this renewed focus (which was previously there in 1970s also) is that free-market policies of the 1980s and early 1990s were viewed as inadequately helping the poor. But this New Consensus appears to, reflect a growing sentiment that the goal of poverty eradication is finally achievable, especially given recent progress in health and education. (Todaro and Smith, 2003; p 705).²⁸ According to them, health and education are critical to successful development. The ability of a society to make effective use of the market depends on the capabilities of its citizens. They have quoted example of China and India. Both countries have had restraints on the market in the past. But China invested heavily in basic education and health.

When China liberalized, in 1978, it started with a literate and numerate and at least relatively healthy, adult population and the result has been high growth. When India began to liberalize around 1991, nearly half the adult population was still illiterate and many were still lacking in nutrition and basic health care. This could be one explanation according to Sen, for China’s better growth outcome with market liberalization than India’s. Whereas the New Consensus borrows some lessons from the Washington consensus so far as -the role of government in development is concerned, the stress on market based development and limiting government’s role in direct production continues to be the consensus view.

It has been argued that New consensus also does not include some features which have been considered by many commentators as significant to East Asian success viz, an active industrial policy - picking winners to overcome coordination failures, but because they are controversial. In spite of such drawbacks, it is argued that the new view has provided a renewed recognition that governance if poor, can often be improved but once markets fail, their failure can be even worse than govt’s failure. Hence a key part of governments role is to help secure the foundations for economic development by ensuring that the requirements for an effective market - based economy are met.

John Williamson, who first prepared the common agenda consisting of policy reforms required for Latin America and known as ‘Washington consensus’ is of the view that outcomes in Latin America viz, repeated crises, low growth and a continuation of high poverty - have disappointed in the last decade, including many countries that have stabilised, liberalised and opened up. This created the need for having another look at the policy agenda of the region. Keeping this in view the Institute for international Economics assembled a group of economists, (most of them Latin Americans), who were supposed to suggest where countries ought to be heading in each of the main areas of economic policy: reform of the state, social policy, fiscal policy, the financial sector, exchange rates and monetary policy, trade, education, labour market and political economy. The results of the deliberations of this group have been summarized by Kuczynski and Williamson (2003) in their book ‘After the Washington Consensus: Restarting Growth and Reforms in Latin America.’ This new reform agenda has been classified by Williamson into four big themes; crisis proofing; completing the ‘first-generation’ liberalising reforms that constituted the core of the Washington consensus; complementing them with, ‘second

²⁸ Todaro, Michael, P & Stephen C. Smith (2003) Economic Development.

generation' (institutional) reforms; and broadening the reform agenda to include a concern with income distribution. Though they have focussed mainly on Latin America but also try to examine whether these thoughts could be of any relevance to the outside world as well.

So far as crisis-proofing is concerned, it is argued by them that since Latin American economies are prone to such crises²⁹, the main objective of the new agenda should be to reduce the variability of the countries of this region to such crises. They suggest some Measures in this regard viz, achieve budget surpluses in the time of prosperity, sufficiently flexible exchange rate to allow external competitiveness and complementing this flexible exchange rate with a monetary policy focussed on targetting a low rate of inflation, increase domestic savings so that investment can rise without under dependence on capital imports etc. In order to being fiscal discipline, public debt/GDP ratio should be in the tolerable limit³⁰. Regarding the relevance of these thoughts to Indian economy, they are of the view, that it is quite dangerous for India to allow large budget deficits to persist year after year and the public debt to continue to escalate. It can lead to the collapse similar to that in Argentina in early 1990s.

Regarding First Generation reforms, it is argued that though a lot has been done by many economies but the process is still incomplete in many dimensions. Labour market has not become more flexible. Process of trade liberalisation is not complete. Privatisation, according to them, is by far the most unpopular of the first generation reforms with the Latin American public, but the evidence simply does not support the view that privatisation has not brought benefits to the general public. Even in the financial sector, there remain countries where the process of liberalisation is not complete. So far as Indian economy is concerned, there is more scope than Latin America for this sort of liberalising reforms.

So far as second-generation reforms are concerned, it has been argued that the major thrust of development economics in the 1990s was recognition of the crucial role of institutions in permitting an economy to function effectively. The importance of institutional reforms in complementing first generation reforms in Latin America was first emphasised by Moise's Naim (1994), who dubbed these second generation reforms. According to a recent paper by Ross Levine and William Easterly (2002)³¹ concludes that the state of institutional development furnishes the only variable that reliably predicts how developed a country is, And one major needs for institutional reforms, according to Williamson, is in the financial sector what is needs here, in addition to the strengthening of prudential supervision, is a whole series of apparently minor changes like improving transparency, upgrading accountancy, strengthening the rights of minority creditors, facilitating the recovery of assets pledged as collateral, and developing credit registries. While such reforms, he says, may appear minor, in fact they are of fundamental importance but quite difficult to implement.

Finally, emphasis has been given on income distribution, a topic of major importance. in Latin America, which has the most unequal distributions in the world. Now there are two ways through which poor people can become less poor. One is to increase the size of the economic pie from which everyone in society draws their income. The other is by redistribution of a given sized pie, so that the rich get a smaller proportion and the poor get a bigger proportion. Progressive taxes are considered to

²⁹ It was in the last five years, according to them, with a succession of crises that started in Mexico, then brought east Asia low, and then moved on via Russia to infect Latin American countries like Argentina, Brazil, Equador, Uruguay, and Venezuela, that percapita growth turned negative from positive again and poverty, which was decreasing, started rising again.

³⁰ For details of all the four themes, see ,John Williamson "The Washington Consensus and Beyond." EPW, April 12,2003.

³¹ Rose Lavine & William Easterly (2002) quoted in John, Williamson ; The Washington Consensus & Beyond. Op. cit.

be the classic instrument for redistributing income. An effort should be made on collecting more from direct taxes rather than giving emphasis to indirect taxes, as has been done in Latin America under the tax reforms. Hence emphasis should be given on:

- (a) the development of property taxation as a major revenue source;
- (b) the elimination of tax loopholes, which not only can increase revenue but can also simplify tax obligations and thus aid enforcement;
- (c) better tax collection, particularly of the income earned on flight of capital abroad, which will require the signing of tax information sharing arrangements with at least the principal havens for capital flight,

This increase in tax revenue should be devoted to spending on basic social services, including a safety net as well as education and health, so that the net effect will be a significant impact in terms of reducing inequality, particularly by expanding opportunities for the poor. But since what is achievable through the tax system is limited, the significant improvements in distribution will come only by remedying the fundamental weakness that causes poverty, which is that too many people lack the assets that enable them to work their way out of poverty. Hence an effort should be made to give the poor access to assets that will enable them to make and sell things that others will pay to buy. This will help them to come out of the clutches of poverty.

Self Assessment Questions – I

1. State any two problems of Govt. Intervention.

2. Name ten points of Washington Consensus.

3. State any two fields where Govt. can play an active role.

11.9 SUMMARY

In this lesson, we have studied about the functions of the state and its allied problems. To sum up, it can be stated that govt. has to play an important role in an economy. It has to perform particular functions which cannot be left to the markets e.g. providing education, health, security etc. to the citizens. Then it has to provide institutional environment for markets to flourish and operate efficiently. But when corruption enters the system, the govt. cannot perform its duties efficiently. Budget allocations are done but it is misused and all this leads to govt. failure ultimately. Thus in the recent times, there has been reemergence of interest in the markets in many developing countries. So what should be done? The whole controversy regarding the role of the state and market concludes that markets should be allowed to work efficiently but wherever necessary, govt. intervention must be there. So a judicious mix of both the systems is desirable so as to achieve successful economic development but functioning of both the systems has to be improved.

11.10 GLOSSARY

- Institutional Environment – It is the appropriate situation under which markets can flourish and operate efficiently.
- Failed States – A failed state is a political body that has disintegrated to a point where basic conditions and responsibilities of a sovereign government no longer functions properly. Failed states can no longer perform basic functions such as education, security or governance usually due to extreme poverty.
- Washington Consensus – It is a set of ten prescriptions considered to constitute the “standard” reform package promoted for crisis-wrecked developing countries by Washington, D.C. – based institution such as the IMF, World Bank, and the U.S. Treasury Department. The team was first used in 1989 by English economist John Williamson.

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11.13 MODEL QUESTIONS

- Q1. Explain in detail the functions of the state
- Q2. What do you mean by govt. failure. Explain the main reasons behind it.
- Q3. Why has the reemergence of interest in the markets has developed?
- Q4. Write a short note on the choice of an economic system

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