CHAPTER 1

Industry and Economic Development

1.1 INTRODUCTION

Industrial development has a necessary and ultimately a large role to play in almost any sound development programme[1]. Industrialisation has come to be regarded as synonymous to economic development and if an under-developed country wants to raise its economic development then of course it must initate programmes of industrialisation. The Soviet delegation to the U.N. Economic and Social council in 1963, stated that industrialisation is a system of economic development in which major part of natural resources are used to develop a technically up-to-date, diversified national industry capable of assuring a high rate of growth for the economy as a whole and of overcoming economic and social backwardness"[2].

As a matter of fact we see that the essential criteria that are being used to distinguish developed economy from an under-developed economy always relates to the proportion of work force engaged in industrial activity, the proportion of national output originating, in industrial sector. No doubt both the terms industrialisation and economic development are used interchangeably. Industrialisation is taken thus as a concomitant of development.

1.2 THE MEANING OF INDUSTRIALISATION

Industrialisation in the Marxist literature is used in two different meanings. In the narrow meaning, it refers to the establishment and development of the production of the means of production. In the broad meaning, it refers to the completion of the industrial revolution and the transfer of the economy to

1. Murray D : *Industrial Development* p. 5.
2. This definition was submitted to the Soviet Deligation to the U.N. Economic and Social Council in 1963 and was quoted by Shirokov, *Industrialisation of India*, P.8.

industrial methods of production. Taken together these meanings imply that industrialisation begins with the setting of the heavy industries for the production of the means of production and that when an adequate industrial production has been created the entire economy is transferred to the industrial methods of production. These two meanings correspond to the initial and concluding stages of industrialisation. This idea of industrialisation owes its origin to the specific character of economic development in the erstwhile U.S.S.R. According to Shirokov, when the Soviet Union initiated the process of industrialisation it had a definite industrial potential including several light and heavy industry, transport and communication, skilled labour and technical know how. As against this the developing countries were faced with a different situation that is; with a backward social and economic system which was not conducive to large scale industrialisation[3].

"Industrialisation in its wider sense is the key to economic progress and higher living standards". "Industrialisation may be defined" as a process in which changes of a series of strategical production functions are taking place. It involves those basic changes that accompany the mechanization of an enterprise, the building of a new industry, the opening of a new market and the exploitation of a new territory. This is in a way, a process of deepening as well as widening of capital"[4]. **Prof. A.H. Hansen** defines the deepening process as one where more capital is used per unit of output while the widening process means that capital formation grows *pari passu* with the increase in the output of final goods"[5]. In other words, this process raises the productivity per worker in the country. Eugene Staley, marks an association between industrialisation and the high productivity which makes high average incomes. "The two are parts of an interlinked process one does not proceed very far without the other. It is equally true to say that (*i*) high productivity produces industrialisation and that industrialisation produces high productivity"[6]. It is in this context that Condliffe and Rosenstein Rodan have viewed industrialisation as an alternative to emigration for solving the problem of over population and of raising the national income in economically less developed areas.

Industrialisation means thus the establishment and development of manufacturing industries along with bringing about a change in the whole economic structure. Industrialisation is thus a process by which the "Centre of Gravity" of the economy shifts from agriculture to industry. It involves two things basically that is adoption of technologically superior technique of production that helps to transform basic raw material and intermediate goods into manufactured goods and secondly leads to the application of modern technique of management and organisation.

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3. P.T. Bauer and B.S. Yamey, *The Economics of Under Developed Countries.*
4. Pei-Kang Chang, *Agriculture and Industrialisation*, p. 69.
5. A.H. Hansen, *Fiscal Policy and Business cycle*, p. 355.
6. E.Staley, *The Future of Under Developed Countries*, pp. 394–395.

Industrialisation as such involves the organisation of production in business enterprises characterised by specialisation and division of labour both within and among themselves, this specialisation is based on the application of technology and on mechanical and electrical power to supplement and replace human effort and motivated by the objective of minimising cost per unit and maximising returns to the enterprise. This leads to realisation of industrial progress and promotion of economic growth rate in the country.

Industrialisation may thus be termed as "a precursor to economic development and social change".

1.2.1 Characteristics of Industrialisation

Certain basic features of industrialisation can be gathered from the definition of industrialisation They are pin-pointed as such:

1. Industrialisation and economic development are synonymous.
2. There is deepening and widening of capital.
3. Development of a new process takes place.
4. Industrialisation is related to take-off stage of development.
5. Mobility of factors of production takes place.
6. Social changes occurs.

1.2.2 Pattern of Industrialisation

Pattern of industrialisation varies from **country to country** (*i*) According to the amount of initiative taken by the government or private enterprises, industrialisation may be individual or private initiated, state initiated, jointly initiated (mixed economy). Infact in the initial stage of industrialisation efforts of both government and individuals are involved. India may be categorised as mixed economy.

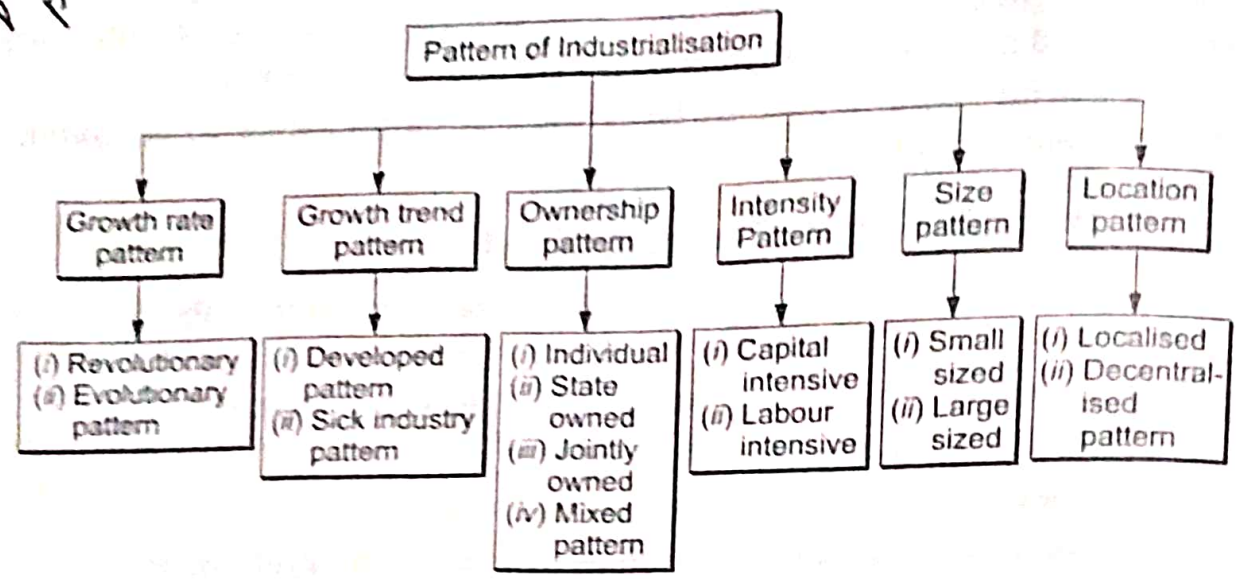
(*ii*) Industrialisation can also be classified as revolutionary and evolutionary. The process of industrialisation undergone in Soviet Russia is described as **'Revolutionary'** to distinguish it from **"Evolutionary"** type as marked in U.K. But these two terms are mutually overlapping. The period of evolution of modern industry in England was designated Industrial Revolution while the revolutionary process of industrialisation adopted by U.S.S.R. was most evolutionary in character as it began with imported technology. To these forces personal freedom along with restrictions are added.

The pattern of industrialisation is also based on intensity *i.e., as labour intensive and capital intensive*. In labour intensive pattern labour is used *viably* as compared to capital in the process of production while in capital intensive pattern capital plays a vital role.

Pattern of industrialisation is also based on *size and location.* on the basis of size it may be large or small and on the basis of location the enterprises may be either localised or diversified in different areas. In localised pattern industry

are located in a particular area while in *decentralised pattern industry* gets diversified into different areas promoting regional balance as such. **The pattern of industrialisation can be viewed with the help of chart (*see* chart 1):**

CHART 1



1.2.3 Agriculture and Industrialisation

It is unreal to consider agricultural development as separate or conflicting. Debates have centered around the relative importance to be assigned to agriculture *versus* Industry. But this dichotomy is often overdrawn. The concern today is to understand the inter-relationship which exist between agriculture and industry and the contribution that each can make to the other.

In the Less Developed Countries more people are engaged in agriculture for their livelihood than in the industrial and other sector. Agriculture growth provided food for the growing non-agricultural labour force and raw material for agro-based industries this domestic demand for industrial goods stimulates increases saving and tax revenue to be utilised for further development, earns more foreign exchange to finance imports of capital, intermediate goods and raw materials for industrialisation and facilitates the development of labour intensive village, small and medium industries in rural and urban areas.

Since agriculture provides employment to more than 70% of the population in the early stages of development, increase in agriculture production and productivity raises rural income. Rising rural incomes have strong multiplier effects in that they increase the demand for domestic non-agricultural goods and services which in turn increases the income of those providing the goods and services. This rise in the demand for industrial goods brings gains in industrialisation.

When there is agricultural progress some of the resources for industrialisation come from agriculture. Infact, increase agricultural productivity implies a large marketable surplus and a redistribution of income in favour of rural sector. Industrialisation requires the reallocation of funds

towards the modern sector along with the rising agricultural income. Rising farm incomes are mopped up through raising land taxes and betterment levies and the mobilisation of rural saving through saving drives and also through such financial institution as cooperative and rural banks. They play an important part in channelising rural saving for industrialisation.

Industrialisation favourably affects agricultural development in a number of ways. *Firstly*, with industrialisation incomes rises rapidly which increases the demand for such agricultural commodities as milk, vegetables, etc. This in turn raises work for rural population and raises income.

Secondly, industrialisation raises the availability of capital for the agricultural sector which helps in modernising agriculture and raising farm output.

Thirdly, industrialisation followed by urbanisation opens vast job opportunities to the rural people who remit money back to the home this is used to buy inputs for farming or raising cattle, poultry, fisheries etc. With the improved means of transportation due to industrialisation markets expand which facilities the sale of such agricultural products in the towns raising their income thereby. *Fourthly*, when urbanisation follows industrialisation it provides larger facilities for education, travel and contact with new things and ideas which widens horizon of the rural people, changing their attitude toward life and leading to modernisation.

Industrialisation provides a wide and expanding range of consumer good which encourages the agriculturist to increase farm produce. This in turn tends to raise their incomes to enable them to buy consumer goods.

Thus, both agriculture and industrial development are intended and each effects the growth of the other. Therefore, harmonious development of both the sectors are necessary for steady growth of the economy. Because of this interdependence of agriculture and industry, we say that they are complementary and not competitive.

1.3 URGE/ROLE OF INDUSTRIALISATION

Industrialisation is a "precursor to economic development and social changes". The effects of industrialisation on the economy of a nation are many and varied. *They can be studied as such:*

1. Structural Changes in the Economy

The most important structural change in the economy introduced by industrialisation is in the occupational pattern. Most of the developing countries are characterised by heavy dependence of their population on the agricultural sector. Incomes in this sector being low the economies of these countries remain stagnant and backward. Industrialisation brings about a marked change in the occupational pattern by opening up new avenues of employment opportunity

in the industrial sector. The pressure of population on agriculture declines and the disguised unemployed people earning only as subsistence livelyhood in agriculture are able to move out to industries where incomes are higher and prospects of progress brighter. Thus, industrialisation brings with it strong forces and dynamism that help the developing countries in breaking the shackles of stagnation.

2. Beneficial Effects on Agricultural Development

Industrialisation helps in accelerating the pace of agricultural growth in a number of ways. For instance, it increases the demand for wage-good of which initially food is the most important. This results in favourable market for agricultural good and tends to break down the relatively stagnant subsistence character of agriculture. The production of each crop is stimulated, the development of agriculture processing industry encouraged and the integration of the rural and urban economies made possible. Industrialisations also makes a wider range of consumer goods available to agricultural worker, raises their level of want and encourages greater productive effort. By encouraging the reorganisation of agriculture on a more efficient, large scale, mechanised basis industrialisation creates conditions which leads to rise in agricultural productivity.

3. Changes in the Social Outlook

The social outlook of the people undergoes a drastic change. The traditional village life with its communal bond is completely transformed as large number of villagers move to cities to work in industries. New progressive ideas changes the outlook of the workers. A new entrepreneurial class in born, capital formation rises, technical innovation takes place and new skills emerge. All these developments have far reaching effect on social relationship and this brings in fact a new modern and vibrant society.

4. Rise in per Capita Income

Due to industrialisation total national income rises rapidly. Progress of industrialisation is accompanied by an increment in national and per capita income. In the industrially developed countries GNP is high in relation to developed economies. The **Table 1.1** reflects the situation in India. It may be noted that the share of manufacturing sector, construction electricity and water supply in 1999-2000, Gross Domestic Product (GDP) rose from Rs. 41,0646 crores to Rs. 707845 crores in 2006-07. (Quick Estimate). In service sector *i.e.*, trade hotel, transport and communication the share surmountly rose from Rs. 387514 crores in (1999-2000) to Rs. 778895 crores in 2006-07 and to 875398 crores in 2007-08 (Quick Estimate).

Table 1.1: Gross domestic product at factor cost by industry of origin

Year	Agriculture, forestry & fishing, mining and quarrying	Manufacturing, construction, electricity, gas and water supply	Trade, hotels, transport & communication	Financing, insurance, real estate and business services	Public administration & defence and other services	Gross domestic product at factor cost (2 to 6)
1	2	3	4	5	6	7
		At 1999-00 prices				
1950-51	127062	30618	25409	17238	23771	224786
1951-52	129301	32008	26097	17635	24485	230034
1952-53	133349	31992	26940	18374	24989	236562
1953-54	143349	34011	27943	18637	25763	250960
1954-55	147657	36952	29738	19318	26686	261615
1955-56	146475	41144	31907	20094	27512	268316
1956-57	154424	44790	34262	20423	28567	283589
1957-58	147941	44217	35392	21194	29858	280160
1958-59	162542	47412	37206	21795	31083	301422
1959-60	161184	50767	39532	22628	32420	308018
1960-61	172433	56143	42885	23096	34012	329825
1961-62	172889	60124	45687	24089	35610	340060
1962-63	170253	63932	48421	24900	38139	347253
1963-64	174276	70729	51833	25670	40642	364834
1964-65	189832	75930	55287	26374	43322	392503
1965-66	170413	78300	56385	27171	45039	378157
1966-67	168275	81077	57880	27648	47116	382008
1967-68	192382	83659	60424	28401	48970	413094
1968-69	192316	87992	63485	29786	51152	423874
1969-70	204555	95024	66613	31024	53976	451496
1970-71	217862	96642	69816	32321	56950	474131
1971-72	214135	99171	71445	33987	59493	478918
1972-73	204288	102603	73226	35301	61439	477392
1973-74	218482	103498	76297	36165	63063	499120
1974-75	215726	104773	81054	36049	66051	504914
1975-76	243462	111336	88357	38534	68384	550379
1976-77	230363	121639	92449	41590	70284	557258
1977-78	252740	130519	98356	43626	72171	598885
1978-79	258605	140668	106338	46708	75290	631839
1979-80	227147	135755	105939	47163	80793	598974
1980-81	256342	141420	111997	48067	84095	641921
1981-82	269309	151968	118888	51972	85895	678033
1982-83	270340	152734	125343	56926	92518	697861
1983-84	296514	165954	131718	62510	95974	752669

1	2	3	4	5	6	7
1984-85	301144	173466	138069	67182	102623	782484
1985-86	302970	180794	149032	73741	108512	815049
1986-87	304012	189987	158041	81510	116666	850217
1987-88	300271	201059	166349	87487	125102	880267
1988-89	347344	217602	176066	96024	132666	969702
1989-90	353038	236017	189043	107962	143119	1029178
1990-91	368907	251868	198770	114670	149357	1083572
1991-92	363245	251633	203897	127079	153219	1099072
1992-93	385685	260668	215271	133999	162400	1158025
1993-94	397916	277143	230141	148962	169654	1223816
1994-95	418084	302872	252876	154751	173493	1302076
1995-96	417378	339845	286232	167276	186244	1396974
1996-97	455458	364725	309328	177627	201241	1508378
1997-98	448241	376071	332580	198423	213902	1573263
1998-99	475201	392170	358014	213902	239123	1678410
1999-00	488109	410647	387515	23549	266707	1786526
			New Series at 1999-2000 prices			
1999-00	488109	410646	387514	233550	266707	1786526
2000-01	487992	438372	415650	243048	279239	1864301
2001-02	516584	450723	453847	260737	290715	1972606
2002-03	486134	481758	496691	281550	302153	2048286
2003-04	531302	519322	556370	297250	318514	2222758
2004-05	535501	574072	615849	323080	340266	2388768
2005-06	566278	635223	690399	359888	364313	2616101
2006-07	591353	706280	778895	409472	385118	2871118
2007-08[Q]	619121	766358	875398	457584	411256	3129717

Source: Central Statistical Organisation.

P: Provisional estimates. Q : Quick estimates.

Note: For the year prior to 1980-81 totals under col. 7 may not add up to totals of individual item under col. 2 to col. 6 due to splicing technique applied independently at the level of each industry and at the total level.

5. Promotes Employment Opportunity

Industrialisation promotes employment opportunity. The sectoral employment share by current daily status reflects that in manufacturing sector the percentage was 11.27% in 1983 and it rose to 12.90% in 2004–05, the share of workforce deployed in agriculture declined from 65.42% in 1983 to 52.06% in 2004–05 while the manufacturing sectors share rose marginally. Trade hotel and restaurant sector contributed significantly higher (from 6.98% in 1983 to 12.62% in 2004–05) to the overall employment than in the earlier year (*see* Table 1.2).

Table 1.2: Sectorial Employment shares by Current Daily Status (CDS Basis)

Industry	1983	1993-94	1999-00	2004-05
Agriculture	65.42	61.03	56.64	52.06
Mining and Quarrying	0.66	0.78	0.67	0.63
Manufacturing	11.27	11.10	12.13	12.90
Electricity, water etc.	0.34	0.41	0.34	0.35
Construction	2.56	3.63	4.44	5.57
Trade, hotel and restaurant	6.98	8.26	11.20	12.62
Transport, storage and communication	2.88	3.22	4.06	4.61
Fin., Insur., Real est., and busi. service	0.78	1.08	1.36	2.00
Comty., social and personal services	9.10	10.50	9.16	9.24
Total	**100.0**	**100.0**	**100.0**	**100.0**

Source: Various rounds of NSSO survey on employment and unemployment/Planning Commission.

6. Industrialisation Resolves Many Problems

Industrialisation is actually an effort to find out solution to the various problems of poverty, insecurity, overpopulation and backwardness etc.

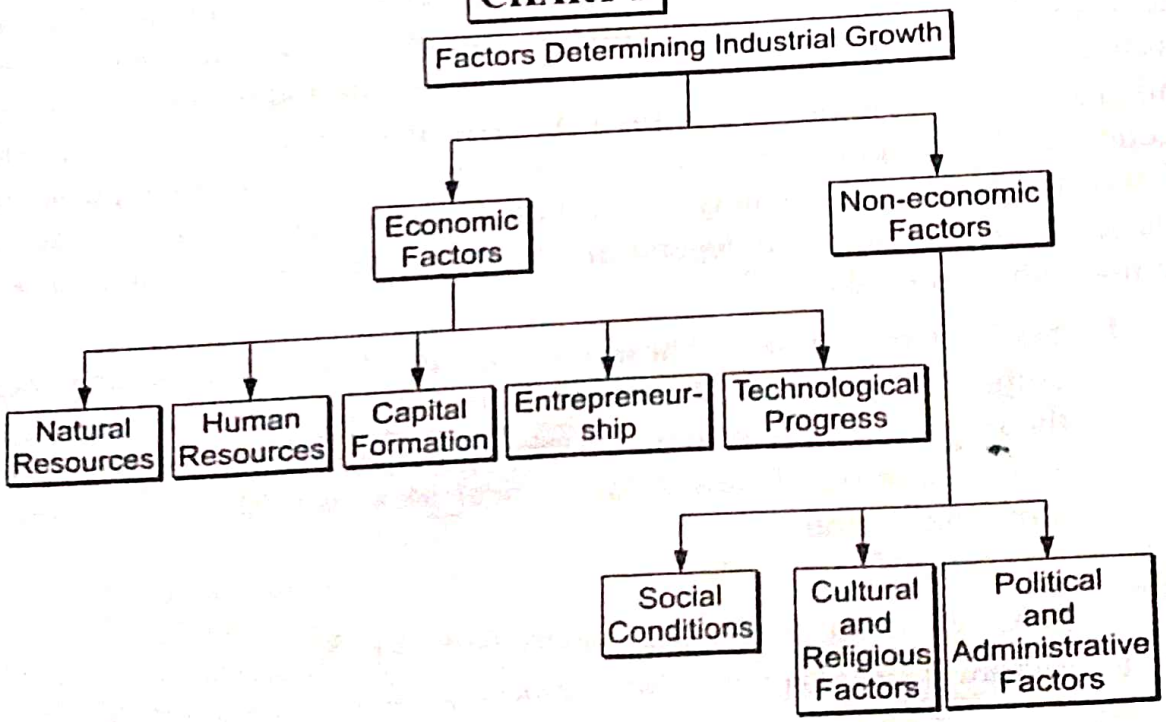
7. Industrialisation and Capital Formation

Industrialisation also helps in boosting capital formation with raising of national and per capita income.

1.3.1 Determinants of Industrial Growth

There are various factors determining industrial growth. They can be classified as Economic and Non-Economic factors (*see* chart 2).

CHART 2



1.3.2 Economic Factors

1. **Natural Resources:** Natural resources play an important role in the process of industrialisation. **W.A.Lewis** stated that other things being equal we can make better use of rich resources than we can of the poor"[7]. A country which is rich in its natural resources has a high impetus to promote development although there are countries like Japan which has added a new dimension to the path of industrialisations despite lack of natural resources.
2. **Human Resources:** If population is less with skilled manpower, literate forces then it would result in promotion of industrialisation since human capital formation is the process of increasing knowledge, skill and the capacities of the people of the country. Good human resources backed by skilled literate personnel leads to promotion of industrialisation.
3. **Capital Formation:** Without adequacy of capital industrialisation lays no where Proper banking facility is also necessary since it enables industries to acquire cheap resources for its development. Capital is therefore an impetus to promote industrial growth.
4. **Entrepreneurship:** A good skillful entrepreneur adds to the promotion of industrial rate of growth. Entrepreneur is the chief pivot of any industry.
5. **Technological Progress:** Good, and efficient technique is a determinant of industrial growth. Efficient technology helps to boost up the rate of productivity and economic progress.

1.3.3 Non-Economic Factors

Industrialisation is determined not only by economic factors but also by non-economic factors. **Prof. Ragnar Nurkse** said that "Economic Development has much to do with human endowment, social attitude and political conditions and historical accidents". **Richard T. Gill** also expressed the fact that "Economic Development is not a mechanical process it is not a simple adding of assorted factors. Ultimately it is a human enterprise and like all human enterprises its outcome will depend finally on the skill, quality and attitude of the man who undertakes it"[8].

1. **Social Conditions:** These include social organisation and social attitude of the people. Replacing old traditional idea by new innovative thought would initate in the process of progress of the economy. Ideas and promotion of new technological ideas would help to promote industrialisation.

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7. W.A. Lewis: *The Theory of Economic Growth* p. 52
8. Richard. T.Gill *'Economic Development'* p. 12

2. **Cultural and Religious Consideration:** This also determines the pace of industrialisation. If the attitude of the people becomes optimistic and is nullified by traditional religious thought then growth will take place speedily.
3. **Political and Administration Set up:** A stable government promotes increament of investment and thereby raises the rate of growth. People willingness to invest in an unstable government is less since nobody wants to bear risk.

Thus, both economic and non-economic factors promotes industrialisation.

1.4. FACTORS INHIBITING INDUSTRIALISATION/ PROBLEMS

Industrialisation as we have seen so far is the most pivot sector which raises income, standard of livings and promotes economic progress.

The LDC are facing many a problem in their effort to promote industrialisation. Hence, it is necessary to focus our attention on the major obstacles which come to the path of industrialisation.

1. **Under Utilisation of Resources:** Plenty of resources available internally alone cannot speed up industrialisation. Proper use of available resources should be there[9]. Infact, in most of the under-developed countries the rate of industrial growth is poor not because of lack of natural resources but only due to under utilisation of the available resources[10]. Without adequate utilisation of natural resources it is highly difficult for an economy to embark upon bigger industrial projects since it is not always possible to import raw material from other countries. Dependence on foreign resources will prove dangerous in time of crisis. Further problem regarding import of bulky and perishable material may also arise. Therefore, under utilisation of resources stands as a crucial problem.
2. **Low Capital Formation:** The under-developed countries are under-equipped with capital in relation to their population and natural resources [11]. In all the under-developed countries the per-capita income and the per capita real income are very low[12]. This low real income

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9. Gerald. M. Meir, *The Problem of Limited Economic Development in Economics of under-development* Ed.A.N Agarwal and S.P. Singh, Oxford University Press, 1966 p. 65, 66.
10. Paul .A. Baran, On *political Economy of Backwardness in Economics of Under-development* p. 81.
11. Atan. B. Mountjoy, *Industrialisation in Under-developed Countries*, Hutchinson University, London, 1968, P.24.
12. Kenneth E.Boulding, *The Skills of the Economist*, Hamish Hamish London 1958, pp.106 - 107.

operates itself in a vicious circle. As such low capital formation hinders the process of industrialisation.

3. **Infrastructural Facilities:** Growth of a network of infrastructure like transport, power, communication etc is an essential pre-requisite for rapid industrialisation. But in case of under-developed countries lack of proper infrastructure leads to slow pace of industrialisation. When infrastructure is sound investment rises in industries.
4. **Market Imperfection:** In an under-developed economy since per-capita income is less therefore standard of living too is low. Most portion of the income is spent on fulfilling the basic needs of life that is on consumer goods and less amount of money is left to be spent on capital goods and as such industrial activity is low. Further, information relating to market, market imperfections stands on the path of industrialisation.
5. **Low Level of Technology:** To promote industrialisation, availability of modern technical know-how is essential[13]. **Dewhurst** writes ; "Technology in fact can be thought of as a primary resource"[14]. There is lack of proper technology in under developed countries. They are more labour intensive in technology. Therefore, technical know-how trained personnels are absent from under developed countries. This is a barrier to promotion of industrialisation. Mechanisation is a requisite for promotion of productivity.
6. **Population Explosion:** An under-developed country is inhabitated by dense population. Therefore, it makes use of labour intensive technology. The productive efficiency in these process tends to be lower than that of capital intensive process. Hence, low rate of industrailisation. Further due to large expansion of population saving resources are utilised more in consumer good industry rather than capital good industry Further the quality of the work force in these less developed countries is also poor and this effects productivity.
7. **Problem Associated with Labourers:** If the laboures are illiterate not trained, they fail then to understand the modern technique of production. Further, due to family bondage, mobility is poor and limited. The people from rural belt are attached to their homeland and therefore this restricts their mobility. Further the labourers are under-nourished due to low per capita income in under developed countries. And this effects the productivity of the labour force. All this processes as a hurdle in the path of industrialisation.

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13. J.A. Schumpeter, *The Theory of Economic Development*, Harvard Cambridge, Massachusetts. 1949. P. 68.
14. J.F. Dewhurst, *America's Needs and Resources: A Survey*, 20th century Fund, New York, 1955 p. 834.

Prof. A. K . Cairncross said that "Development is not a matter of having plenty of money nor is it purely an economic phenomena. It embraces all aspects of social behaviour, the establishment of law and order scruplousness in business dealing, including dealings with revenue authorities, relationship between the family, literacy, familiarity with mechanical gadgets and so on"[15]

8. **Lack of Proper Entrepreneurs:** An under-developed country is backed by illiterate enterpreneur who lacks skillfulness and is unable to take quick decision. This effects the working of industry and thereby restricts the growth rate.
9. **Administrative Hurdle:** Bureaucracy, corruption and red tapism in administration lead to wrong decisions being taken. All of these prove as a hurdle to industrialisation.
10. **Political Instability:** In the absence of political stability industrial production would be affected especially in the initial stages of industrialisation, as the masses are apt to organise for political action in their own interest, rapidly working of industry would not be possible. Industrial growth is handicapped by political instability and political disintegration. The policy framed for industrialisation is actually influenced by the philosophy of the prevailing political party. Due to political instability when parties change their philosophies, this also hinders the policies of industrialisation and industrial progress.
11. **Change Social Attitude:** Industrialisation is influenced by the attitudes of the people in the society. But in U.D.C. people are not so ambitious and whole hearted. The aspirations of the people and their efforts should be such as to achieve miraculous industrial progress. Therefore, change in social mind set is essential to raise industrialisation.
12. **International Hurdle:** International situation is an important factor which affects industrialisation. The global economy has been categorised into advanced countries and less developed conuntries. The decisions taken by advanced countries are basically in their own benefit this affects industrialisation. Dependence upon certain industrially advanced countries for capital equipment also implies certain technical disadvantage for less developed countries because plant design and automatic devices may suit more to the conditions of advanced industrial countries than in under developed countries. Restraints may also be exercised by means of Patents taken by the producing concern in industrially advanced countries. The fiscal policies in capital exporting countries may also exercise a deterrent effect on the outflow of industrial capital to U.D.C. The combination of fiscal and exchange controls has probably militated against the foreign financing of secondary industry in less developed countries.

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15. A.K. Cairncross, *Factors in Economic Development* p. 26.

1.4.1 Measures Conducive to Industrialisation

Several measures and policies have been designed to speed up the process of industrialisation their applicability and effectiveness however depending among other things upon its industrial status, its size and resources, the relative incidence of the obstacle and the extent to which governmental policy can help to remove the obstacles. An effective programme of industrial development is likely to require the adoption and simultaneous carrying out of several of the appropriate polices. The various measures conducive to industrialisation can be examined under two heads (*i*) Domestic, (*ii*) International. Under domestic measures steps can be taken up to solve the problems related to the technological improvement, flow of factor of production, improvement of manpower resources etc. While international measures comprise the attitude of industrially advanced countries and the interest taken by international organisations.

1.4.2 Domestic Internal Incentive Measures

I. Accelerating the flow of the factors of production: The acceleration of the factors of production depends upon:

1. Capital, 2. Entrepreneurial ability, 3. Labour, 4. Raw material and natural resources.

1. **Capital:** Inadequate capital effects the establishment of industry. The shortage of capital is due to low savings and capital formation. Most of the under-developed countries witness inequality in distribution of income. It is essential that every encouragement should be given to institutional developments parallel to industrial development; public debt policy, deficit financing, can help in raising up of income and thereby speeding industrialisation.
2. **Enterepreneurial Ability:** It should be borne in mind that the assumption of the entrepreneurial role to promote industrialisation is a pre-requisite. But in an under developed country the shortage of managerial and entrepreneurial ability is crucial one. Therefore, attention must be given to train the managers and this can be feasible through opening up management institutes and development corporations.
3. **Raw Material and Natural Resources:** Lack of natural resources is an effective barrier to intensive industrialisation. The Government steps to stimulate development of local raw material resources which is likely to facilitate the process of industrialisation.
4. **Labour:** For gearing a labour policy it is essential firstly to promote (*i*) training to labourers and (*ii*) to increase the mobility of workers. Further providing education and making them literate should be extensively be practised. The government can also raise the quality of

the labour force through apprentice training, scholarships and stipends to its trainers. All this would afford good human capital formation. **F.H. Harbinson** said that "Human capital formation refers to the process of acquiring and increasing the number of persons, who have skills, education, experience which are critical for the economic and political developments of the country Human capital formation is thus associated with investment in man and his development as a creative and productive resources[16]". The government therefore needs to establish more institutes to train the labour force in order to promote human capital formation.

1.4.3 Improving the Production Technique

The process of industrialisation can be accelerated by establishing optimum size concerns this involves the problems of adaptation since differences in the size of market entails the differences in the scale of operation. The improvement in the technique of production can resolve the hurdles. Along with inventions and innovations, control of drainage of people to abroad can remove the obstacles.

1.4.4 Change in Governmental Policy

Government policy have played an important role in promoting and encouraging economic activity. No country has made progress without positive stimulus from intelligent government"[17]. The policies comprise of 1. fiscal policy, 2. credit policy, 3. balance of payment policy, 4. tariff policy, 5. industrial planning.

1. **Fiscal Policy:** (*i*) The formulation of a sound fiscal policy is to bring about an investment in both old and new industries, (*ii*) to discourage speculative activities in unproductive activities, (*iii*) to increase the productivity of various factors of production engaged in secondary industry. Industrial development can be stimulated by means of tax concession to industries.
2. **Credit Policy:** The credit policy need to be regulated carefully by the state inorder to avoid inflationary tendencies. Expansionary Credit Policy acts as a stimulus to better utilisation of resources in under developed countries. The government while granting credit should regulate budgetary and balance of payment consideration so that any undue price rising tendencies generated by industrial programme may be restrained or countered. The monetary policy must regulate unproductive expenditures and regulate the money supply in the right direction.
3. **Balance of Payment Policy:** The initial strain on the balance of payment imposed by an industrialisation growth programme may be

16. F.H. Harbinsons, *Human Resources* in *Development Planning* in *Modernising Economics.*
17. Prof. W.A. Lewis, *Theory of Economic Growth.*

eased by foreign borrowings. The capital must be *invested* in industries contributing to *export promotion.*

4. **Tariff Policy:** A proper tariff export and import policy would also promote industrialisation. Promotion of export industries and import substitution would initate industrialisation.
5. **Industrial Planning:** Industrialisation has played a larger part in the policies of centrally planned economic of under-developed countries Industrial planning means (*i*) balanced development of various sectors of the economy, (*ii*) reasonable rate of industrial growth, (*iii*) order of priority in which industries are established, and (*iv*) extent of industrialisation aimed at.

1.5 INTERNATIONAL MEASURES/EXTERNAL FORCES

External forces helping to shape the course and influence the speed of the industrialisation process may be grouped into two classes :

(*i*) The role of international organisations

(*ii*) Industrial countries role to promote industrialisation in less developed countries.

1.5.1 Role of Industrial Countries

The industrial countries can influence industrialisation in under developed countries. Through (*a*) International trade, (*b*) International immigration, (*c*) International flow of capital and (*d*) Technical assistance. *Foreign trade* is one of the chief instruments of industrialisation in the hands of under developed countries. Its value for this objective depends directly on the nature of the commodities exported. The volume of export earnings, the currency in which export earnings are realised, the stability of these export earnings the terms of trade, the nature of goods imported. The value therefore depends upon the degree of monetary stability industrialisation was promoted through.

International immigration, flow of capital and technical assistance: In the industrial sector most of the assistance scheme has been designed to increase productivity in the existing occupation and industries by helping to improve method, raise quality and lower cost and prices. The international organisation play an important role in the industrialisation of the under-developed countries by producing the direct financial or technical aid , by facilitating the exchange of ideas, by disseminating the lessons learnt by the individual countries in the course of their industrialisation programmes and by engaging in comparative research. The establishment of the World Bank (I.B.R.D.), the International Finance Corporation, the International Development Association, the I.M.F and a special united nations fund for economic development deserves special attention in this connection. The bank advanced loans for basic facilities so that industrialisation may begin on a sound base.

CHAPTER 5

Industrial Organisation and Ownership Structure

5.1 INTRODUCTION

Industrial organisation occupies a very significant place on the map of business organisation. It is the fundamental tool for growth and diversification of industrial economy. It is an index of industrial development.

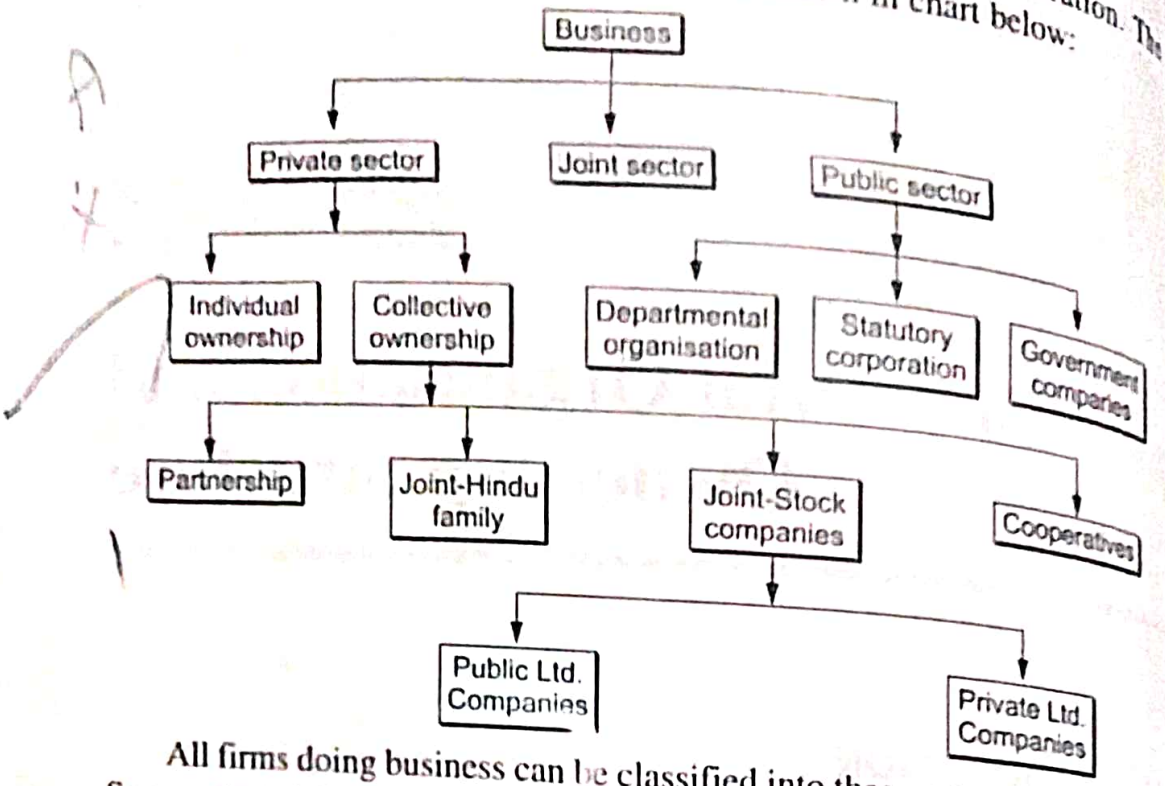
Industrial organisation is a combination of two words industrial and organisation hence, to understand the term industrial organisation, we need to understand the meaning of industry and organisation. *Industry* is a group of productive enterprise or organisation that produces or supply, goods, services or sources of income. This concept was made by the *New Encyclopedia Britannica*.

Organisation was defined by **J.C. Denyer** as : "Organisation is concerned with the arrangement of work, with the division of activities and with the allocation of duties, authority and responsibilities". In this way *industrial organisation* is concerned with organising industrial activities in an *integrated* and *coordinated manner* to gain *industrial goals*. Industry organisation is thus a systematic assemblage of men, machine, material, market money, and management for the achievement of common goals. It may also be thought of as a complex of relationship among human factor and physical factors and work cemented together into a network of systems so that the pre-decided goals can be achieved effectively and efficiently.

5.2 ORGANISATIONAL FORMS

A business firm may be identified on the basis of certain characteristics like the type of ownership and so on. According to this we can classify the firms

in categories like proprietorship partnership, and the corporation. The organisational pattern of firms or business is shown in chart below:



All firms doing business can be classified into these categories: (*i*) Private Sector, (*ii*) Public Sector, and (*iii*) Joint sector firms, (*iv*) Cooperative Sector. *In the private sector* the ownership is exclusively in the hands of the private individuals whereas in the *public sector* central or state government owns the firm. In the case of joint sector, the government, the private entrepreneur and *the public together share of the firm*. Similarly, in a cooperative sector people mark together with common economic objectives organising themselves on the basis of equality for the fulfillment of objectives. The *organisational forms of the* firms in each of *these three categories may be described briefly as follows*

5.3 STATE/PUBLIC SECTOR ENTERPRISES

The state enterprises refer to those business enterprises whose ownership and management are directly in the hands of the government. Such enterprises are directly managed *by the government* **Prof. S.S. Khera** defines it as the industrial commercial and economic activities carried on by the central government or the state government and in each case either solely or in association with private enterprise so long as it is managed by a self-contained management"[1]. For example, Railways, post and telegraph department are the government enterprises. *Encyelopaedia Britannica : defined it as such* "The term usually refers to government ownership and active operation of

1. Khera S.S., *Management and Control in Public Enterprises*, Asia Publishing House, Bombay 1964, p. 10.
2. *Encyclopaedia Britannica*, Vol. 18 Encyclopaedia Britannica Inc. Chicago 1965, p. 738.

agencies engaged in supplying the public, the goods and services which alternatively might be supplied by privately owned profit motivated firms[2]." The definition has laid emphasis on government ownership and absence of profit motive. V.K R.V. Rao stated that " Sectors of economic activity which involves either monopoly conditions of strategic economic power or possession of large resources in private hands should be publicly owned and operated as public enterprises. It also means that it should make it self-available for the building of *economic overheads.* On the *external economics,* like transport, power fuel and basic capital goods without which increase in production of consumption goods and services either on the required scale or necessary economic basis will not be possible. *Without public* enterprises there can *be no private enterprises.* Infact it is in the former that allows full growth of the latter[3].

If we look into the *Evolution* of the *public sector in India,* we would say that prior to 1947 there was virtually no 'public sector' in the Indian economy. The expansion of public sector was undertaken as an integral part of the 1956, industrial policy, which gave the public sector a strategic role in the Indian economy. It was felt that only through government intervention in a big planned way the agricultural and industrial production could be accelerated in a big way, employment opportunities be expanded with reduction of poverty. In other words, the public sector was thought of as the engine for self-reliant economic growth to develop a *sound agricultural* and *industrial base, diversify the economy* and overcome economic and social backwardness.

5.3.1 Characteristic Features of State Enterprises

The characteristic features of state enterprises are as follows :

1. State enterprises are financed by the government.
2. State enterprises are managed by the government.
3. State enterprises are financially independent.
4. The primary objective of state enterprises are to provide services to the society.
5. State enterprises at times are monopoly enterprises such as water, electricity, military equipments etc.
6. State enterprises are helpful in implementing government policies and plans.
7. Autonomous functioning of public enterprises provided sufficient autonomy to manage their affairs.

Thus, public enterprises can be defined as an *activity of the government* whether *central, state or local* involving *manufacturing* or *production of goods including agriculture* or making *available the* services, it has a sound *blending of public.*

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3. *India Economy,* Ruddar Datt and K.P.M Sundharam, p. 190.

5.3.2 Main characteristics

1. **Government Ownership:** The public enterprises should either be wholly owned by the central or state government or local authority or jointly owned by two or more of them. Government ownership means that more than 50% of the equity is held by a public authority. Section 617 of the Indian Company Act clearly specifies that government company means any company in which not less than 51% of the paid up share capital is held by the central government or by any state government or central government partly and partly by one or more state government". Further the public corporations and the departmental undertaking are fully owned by the government. The Government manages the enterprises.
2. **Public Accountability:** The enterprises are provided funds from the public exchequer. It becomes imperative that they should be accountable to the public through the Parliament whose funds are invested to carry on the activities of the enterprises. This goal is achieved through ministers, government, Parliament, audit bodies etc.
3. **Constituent of Political and Administrative Structure:** The establishment and constituent of public enterprises is a political decision and its operation are controlled at strategic points by a system where the politicians have the finals say.
4. **Public Purpose:** In public enterprises social aspects can well precede, supersede and even engulf business consideration. The public interest in various forms and shape provides an under current for all its strategic decisions.
5. **Wide Coverage of Activities:** Public enterprises are found operating in vast area *e.g.*, construction, marketing, agriculture, finance, development mining etc.
6. **Economic Enterprise:** In a public enterprise the price charged for the goods and services is expected to cover the cost.
7. **Autonomous Functioning:** Inspite of the huge investment made by the government, the public enterprises are provided sufficient autonomy to manage their affairs in their own fashion. The self-contained management has the right to manage the affairs on the basis of sound business consideration and prudent commercial practises. The government does not interfere in their day to day activities. *Purpose, public accountability, autonomous functioning and inherent* right to *manage and control* the enterprise *is done by the government*"[4].

5.3.3 Benefits from Public Sector Enterprises

The benefits derived from public sector enterprises are:

1. Economic Benefits
2. Social Benefits

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4. *Narain. L, Principles and Practices of Public Enterprises Managements,* p.48.

I. Economic Benefits

Public Enterprises strengthen the economy by providing the *following benefits*:

1. Public enterprises generate *revenue* for the *government* through various means. Dividends, interest on loans, excise duty, octroi; sales tax, corporation tax are paid to the government by the public enterprises. The revenues generated by the public enterprises has risen in the recent years.
2. Public enterprises *exploit* the *natural* and technological *resources* of the state. This maximizes the social welfare and development opportunities in the economy.
3. Public enterprises save *enormous* amount of scarce *foreign exchange* either by exporting *these surplus* goods and services of the country or by making in vigorous effort in substituting imported products.
4. The public enterprises help to reduce the regional disparities through a planned dispersal of industries. The claims of relatively backward areas are considered by the government in proper perspective.
5. Public enterprises provide infrastructure facilities for the development of the economy.
6. Development of *ancillary SSI units* by *public enterprises* is undertaken to meet the requirements of various supplies. This facilitates the development of subsidiary and incidental industries to the line of manufacture engaged by the public enterprises.
7. Public enterprises also help in reducing unfavourable balance of trade.

II. Social Benefits

Social benefits of public enterprises are an follows:

1. Public enterprises act as model employers. They at a time provide *amenities* like housing, medical, conveyance and other statutory, benefits they show how labour, management, relation is maintained.
2. Public Enterprise protects the interest of the consumers. By adopting discriminatory *pricing policy* they provide goods and services to low income groups at cheaper price they provide goods and make effort to maintain the price line of the goods manufactured.
3. Public enterprises *change the environment* of the society.
4. Public enterprises *generate employment opportunities* directly and indirectly (*see* Table 5.1).
5. Public enterprises helps in reducing *disparities* of *income and wealth*.
6. For adoption of *socialistic pattern* of society the operation of public enterprises is the prime condition.
7. State enterprises are inspired not by profit motivation but by welfare motivation. The consumers therefore are greatly benefitted.

Public sector

A. By branch

1. Central Government	34.11	33.92	33.95	33.66	32.96	32.53	331.13	32.73	32.61	31.95	31.33	30.27	29.38
2. State Government	71.12	73.37	73.55	74.14	7485	74.58	74.58	74.6	74.25	73.84	73.67	72.22	72.02
3. Quasi-Governments	62.22	65.14	65.2	64.58	65.35	64.61	63.85	63.26	61.92	60.2	59.01	58.22	57.48
4. Local bodies	23.13	22.02	21.97	21.92	22.44	22.46	22.59	22.55	22.61	21.75	21.79	21.26	21.18
Total	**190.58**	**194.45**	**1945.66**	**194.29**	**195.59**	**194.15**	**191.38**	**187.73**	**185.8**	**181.97**	**180.07**		

B. By Industry

1. Agriculture, hunting etc.	5.56	5.45	5.39	5.4	5.33	5.3	5.15	5.14	5.02	4.83	5.06	4.93	4.96
2. Mining and quarrying	9.99	10.15	10.16	9.93	9.78	9.37	9.26	9.24	8.75	8.61	8.47	10.3	10.14
3. Manufacturing	18.52	17.84	17.56	17.38	16.61	16.16	15.69	15.31	14.3	13.5	12.6	11.89	11.3
4. Electricity, gas and water	9.05	9.38	9.46	9.56	9.54	9.62	9.46	9.35	9.23	9.13	8.74	8.6	
5. Construction	11.49	11.67	11.64	11.59	11.34	11.09	11.07	10.92	10.81	10.26	9.82	9.32	9.11
6. Wholesale and retail trade	1.5	1.61	1.62	1.62	1.64	1.63	1.63	1.63	1.57	1.82	1.82	1.81	1.84
7. Transport, storage and communications	30.26	30.84	31.06	30.92	30.92	30.84	30.77	30.42	30.09	29.39	28.15	27.51	
8. Finance, insurance, real estate etc	11.94	12.73	12.83	12.8	13.94	12.88	12.96	12.81	12.3	13.77	14.08	14.08	
9. Community, Social and personal services	92.27	94.78	95.04	95.2	97.47	97.37	97.94	97.71	98.3	97.35	96.09	92.76	92.52
Total	**190.58**	**194.45**	**194.66**	**194.29**	**195.59**	**194.18**	**194.15**	**193.14**	**191.38**	**187.73**	**185.8**	**181.73**	**180.07**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Private sector														
1. Agriculture, hunting etc.	8.91	8.83	8.94	9.19	9.12	9.04	8.71	9.04	9.31	8.55	8.95	9.17	9.83	10.28
2. Mining and quarrying	1.00	1.01	1.03	1.07	0.92	0.91	0.87	0.81	0.79	0.68	0.66	0.65	0.79	0.95
3. Manufacturing	44.81	46.30	47.06	50.49	52.39	52.33	51.78	50.85	50.13	48.67	47.44	44.89	44.89	45.49
4. Electricity, gas and water	0.40	0.40	0.40	0.42	0.41	0.42	0.41	0.41	0.52	0.42	0.50	0.47	0.49	0.40
5. Construction	0.73	0.51	0.53	0.53	0.54	0.74	0.71	0.57	0.57	0.56	0.44	0.45	0.49	0.55
6. Wholesale and retail trade	3.00	3.02	3.08	3.17	3.17	3.21	3.23	3.30	3.39	3.35	3.60	3.51	3.75	3.87
7. Transport, storage and communications	0.53	0.56	0.58	0.60	0.63	0.65	0.69	0.70	0.76	0.76	0.79	0.81	0.85	0.87
8. Finance, insurance, real estate etc.	2.54	2.82	2.93	3.06	3.22	3.41	3.58	3.58	3.70	3.91	4.26	4.58	5.23	6.52
9. Community, social and personal services	14.85	15.85	16.03	16.58	16.44	16.77	17.00	17.23	17.34	17.42	17.56	17.92	18.20	18.78
Total	**76.77**	**79.30**	**80.59**	**85.12**	**86.86**	**87.48**	**86.98**	**86.46**	**86.52**	**84.32**	**84.21**	**82.46**	**84.52**	**87.71**
BY Sex														
Public sector														
Male	167.10	168.80	168.66	167.94	166.31	166.55	166.04	164.57	162.79	158.86	156.76	153.07	150.86	151.85
Female	23.47	25.65	26.00	26.35	27.28	27.63	28.11	28.57	28.59	28.87	29.03	28.90	29.21	30.03
Total	**190.57**	**194.45**	**194.66**	**194.29**	**195.59**	**194.18**	**194.15**	**193.14**	**191.38**	**187.73**	**185.8**	**181.97**	**180.07**	**181.88**
Private sector														
Male	62.42	63.41	64.31	67.20	67.77	67.37	66.80	65.80	65.62	63.83	63.57	62.02	63.57	66.87
Female	14.34	15.89	16.28	17.92	19.09	20.11	20.18	20.66	20.90	20.49	20.64	20.44	20.95	21.18
Total	**76.76**	**79.30**	**80.59**	**85.12**	**86.86**	**87.48**	**86.98**	**86.46**	**86.52**	**84.32**	**84.21**	**82.46**	**84.52**	**88.05**
Public and Private sector														
Male	229.52	232.21	232.97	235.14	236.08	233.92	232.84	230.37	228.40	222.71	220.32	215.09	214.42	218.72
Female	37.81	41.54	42.28	44.26	46.37	47.74	48.29	49.23	49.49	49.35	49.68	49.34	50.16	51.21
Total	**267.33**	**273.75**	**275.25**	**279.41**	**282.45**	**281.66**	**281.13**	**279.60**	**277.89**	**272.06**	**270.00**	**264.43**	**264.58**	**269.93**

Source : Ministry of Labour and Employment, Director general of Employments and Training, Economic Survey, 2008-09, P.A.-52

Note:
1. Coverage in construction, particularly on private account, is known to be inadequate.
2. Employment in private sector relates to non-agriculture establishments in private sector employing 10 or more person. Employment and public sector relate to all establishments irrespective size.
3. Excludes Sikkim, Arunachal Pradesh, Dadra and Nagar Havelli and Lakshadweep as these are not yet covered under the programme.
4. Due to non-availability of data as per NIC 1998, information in respect of J & K, Meghalaya, Mizoram, Daman & Diu not included in totals of 2006.

8. Public enterprises can provide *better work-force by employing* higher *salaries and perks.*
9. Public enterprises due to adequate financial resources can use latest techniques and machines.
10. Suitable only in certain enterprises which can be operated only by public enterprises since they do not generate immediate profits *e.g.*, transport, electricity.

5.4 LIMITATIONS OF PUBLIC ENTERPRISES

Limitation of public enterprises are given below :

1. There is a good deal of *Red Tapism* in government enterprises. The work proceeds slowly in government enterprises. Prompt decisions are not taken.
2. The workers have little or no incentive for hard work in government enterprises, therefore *efficiency* to *work is low.*
3. It is mostly seen that there is only *routine working in government* departments. There is little *spirit of new initiative* being displayed by any employee.
4. In a public enterprises it is often seen that there is lack *of economic motive.*
5. *Favouritism, nepotism reign* supreme in government enterprises. High officials generally appoint their own kith and kin in government departments.
6. Too much interference by ministers and politicians disrupts autonomy in the working of state enterprises.
7. Unnecessary burden on tax payers. Since, if there is any financial loss then the burden is borne by tax payers.
8. In the enterprises, there is lack of concern about cost control, avoidance of waste, improvement of efficiency or increasing the capacity utilisation. Even if they are incurring losses no *special concerted* efforts are made to reduce *that or improve* the *situation.*
9. Public enterprises have poor and weak *labour-employee relation.*
10. Public enterprises suffer *from inefficiency* and *poor profitability as compared* to their counterpart in private sector.
11. *Mounting losses* are seen in public enterprises.
12. *Political factors* influence decision about location
13. In many cases it was seen that inspite of rise in cost, prices may not be increased on non-economic ground. Often this may lead to back-door taxation of the consumers.
14. The public enterprises may perform poorly due to faulty controls exercised over them.

Performance of Public Sector in Indian economy can be viewed in Table 5.2.

Table 5.2: Percentage share of public sector [Rs. Crores]

Item	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Gross domestic product	25.6 Rs(178625)	25.0 (1925017)	25.0 (209726)	25.5 (226145)	24.2 (2538171)	23.3 (287706)	21.7 (3225670)	21.4 (3790063)
Gross domestic saving	–3.2 (484256)	–7.4 (499033)	–8.6 (534885)	–2.5 (647970)	3.6 (821027)	6.9 (1000424)	7.5 (1227348)	9.3 (1441423)
Gross domestic formation	29.3 (493999)	29.9 (493285)	29.2 (536854)	24.7 (605533)	24.5 (712900)	22.7 (954889)	22.8 (1195408)	22.3 (1442634)
Final consumption expenditure	16.7 (1510285)	16.5 (1610671)	16.1 (1752087)	15.8 (1854596)	15.4 (2013844)	15.5 (2186542)	15.3 (2435298)	15.5 (2751116)

Source: *India, 2009 P-131*

5.5 PRIVATE SECTOR

Private sectors or private enterprises refer to all types of individual or corporate enterprises domestic and foreign in any field of productive activity. Private sector enterprises are characterised by ownership and management in private hands, personal initiative and profit motive.

In the 18th centuries private sector units were of *laissez-faire* variety *i.e.*, private sector was completely *free* of *governmental interferences*. Private enterprises were normally small units owned and managed by sole proprietor. He bore the risk of the business According to **L.H. Haney** "The sole entrepreneurships in the form of business organisation on the head of which stands an individual is the one who is responsible who directs its operation, who also runs the risk of failure". Therefore, there is *one owner, who conducts the use of factors of production , and bears both profits and loss*. In sole proprietorship the business and his ownership exists together. There is complete secrecy. Their main motive was to earn profit.

But today, private sector is qualitatively different from corporate industrial units which are owned by the shareholder and managed by professional managers. The latter is not always interested in maximising profit but have other corporate objectives as well such as *expansion, consolidation social conciseness and social welfare*.

5.5.1 Characteristics of Private Enterprise

Following are the characteristics of private enterprise:

(*i*) *Low cost of production*. Since business is exclusively his own, the single entrepreneur works day and night for the success of his enterprise. He allows no wastage of material in his establishment.

(*ii*) Close contact with customers.

(*ii*) Close contact with workers.

(*iv*) Promptness in decision since it is one man's decision.

(*v*) Security of trade secrets.

5.5.2 Disadvantages

Disadvantages public enterprises are an follows:

1. Limited economic resources.
2. Inability to face competition from bigger units due to limited capital
3. No-large scale economics.

The *private sector and public sector* are *distinguished* in some way from each other. The public sector is entrusted with the responsibility of developing heavy and basic industries social and economic infrastructure

Main points of differences	Public enterprise	Private enterprise
1. Motive	Service motive	Profit motive
2. Nature of Industry	Capital intensive and Risky Industries	Comparatively little requirement of capital and less risk
3. Performance	Surplus generation, Cost of production, productivity and contribution to Exchequer	Profitability mainly
4. Secrecy	Except in defence, inother sector, secrecy is not maintained	Secrecy is maintained
5. Autonomy	Comparatively lesser autonomy is given to top officials	They are autonomous units
6. Risk	Risk is not personal in nature	Risk is personal by nature
7. Market	Monopolistic in majority of cases	Competitive in majority of cases
8. Pricing	Administered pricing	Not so
9. Public Accountability	Government and parliament facilitate public accountability	It is not so in this case
10. Audit control	Audit is done	Audit is not a must
11. Social overheads	They have to act as model employer	It is not so in this case
12. Flexibility	Lack of flexibility	There is flexibility
13. Role of industrial policy statement	Prime role	Secondary role

The private sector is given the right to develop consumer good industries, while banks and financial institution, railways, civil aviation, power generation and distribution etc are in the public sector, The whole of agriculture and allied activities, plantation mining internal trade, both retail and wholesale are embraced by private sector. The private sector has indeed come to mean the *corporate industrial sector*. Private sector was suitable to consumer goods industries which involves *limited risk* and short *gestation period*. On the other hand the public sector investment being autonomous was considered more suitable to low profit yielding long gestation and heavy investment sectors. The infrastructure industries were thus reserved for *public sector*.

5.6 JOINT SECTOR

It is known as a *corporate form of business*. A joint stock *company is an association of individual as shareholders, who are authorised by the government to run a particular business*. According to **L.H.Haney,** "A joint-Stock company is a voluntary association of individuals for profit, having capital divided into transferable shares, the ownership of which is the condition of membership". Large scale commercial and industrial enterprises are run under the joint stock company system. This system exists in U.S.A., Japan, Western European countries.

5.6.1 Characteristic Features of Joint-Stock companies

There are an follows:

(*i*) The *capital of the firm is contributed by a large number of shareholders* who are the real owners of the business enterprises.

(*ii*) The *liability of the shareholder* is *limited to the value* of the shares held by him.

(*iii*) The *policy making* job of the firm *is entrusted to a board of directors* who are elected from amongst the shareholders.

(*iv*) The *actual management* of the company is carried on by the paid managers who work under the direct *supervision* of the *Managing Director.*

(*v*) The joint stock company has a separate and distinct legal entity from that of the shareholders.

5.6.2 How a Joint-stock Company is Organised?

An entrepreneur conceives of some new enterprise which in his view is likely to yield good profits, under the Indian companies act such an entrepreneur is required to gather around him six persons who are interested in the new project. These persons are known as *promoters of* these company. These promoters will *draft a memorandum of association* which would include name of the company, its headquarters, the aims and objects, the aggregate share capital to be raised from the public, the types of shares to be issued and the value of each share etc. Besides this another document known as *Article of Association* which contains internal rules and regulations of the company. *Both the documents are submitted to the Registrar of companies*. The Registrar after scrutinising these documents extends his approval in the form of a *certificate known as* the *certificate of incorporation*. With the using of this certificate the company comes into formal existence, the *promoters* sell shares *through newspaper advertisement* to raise the capital *from company.*

The joint stock company raises capital either *through shares* or *through debentures*. Those who purchase the shares become the shareholders or part owners of the company to the extent of the value of the shares. They will

naturally bear the risk involved in the business of the company. They are not owners. They are merely entitled to a *fixed percentages of interest on the amount invested by* them *in debentures*. In case the company meets with failure a prior claim over its assets is enjoyed by debenture holder.

There are two types of joint-stock companies (*i*) private limited company (*ii*) public limited company. The former can have 2 to 50 shareholders. The liability of each shareholder is limited to the value of shares held by him. This type of company is debarred under the law from raising funds from the capital market through debentures. The capital contribution comes from the shareholders alone.

In a public limited company ceiling is *fixed on the number of shareholders. Any number of persons can become the shareholders by contributing* capital *to the funds of the company*. The liability of each shareholder is limited to the extent of shares held by him. The *public limited* company can *invite capital subscription* from the *public through newspaper, advertisement.* It can raise funds through issuing of bonds and debentures. The company has to follow rules of Indian Companies act.

5.6.3 Advantages

(*i*) **Adequacy of capital:** A joint-stock company raises capital on larger scale, through selling shares.

(*ii*) **Economies of large scale production:** Since production is done on a large scale therefore economies of large scale production exists.

(*iii*) **Limited liability:** Under this system the liability of a shareholder is limited to the value of shares held by him. The shareholder thus runs only a nominal risk in buying the shares of the company it is therefore seen that men of small means like to invest their surplus fund in the shares of joint-stock companies

(*iv*) **Specialised management:** Since it has large resources. A joint stock company can provide specialised management

(*v*) **Shares of small values:** It checks the concentration of economic control in the hands of a few rich person.

(*vi*) **Transferability of shares:** in stock exchanges

(*vii*) **Permanent identity of the company:** although directors may change.

(*ix*) **Model of economic democracy:** If the works of director is unfair he can be removed.

5.6.4 Disadvantages

(*i*) **Separation between ownership and control:** The ownership of the company vest in the hands of *shareholders*, while management is in the *hands of managers*, who are paid and do not share profit.

(*ii*) **Delay in decision:** The joint-stock company cannot take quick yielding

5.8.2 Types of Cooperatives

Producer cooperatives, consumer cooperatives marketing, credit society, farming are some examples of this type of organisation the motive of these societies is to provide maximum services to its members and not to make profit.

1. ***Producer cooperatives:***

This type of cooperative organisation was initiated in *France*. Under this type of *cooperative organisation* the *workers make their* own *capital contributions* to *these fund* of *the concern* and are themselves the owners of *the business*. They elect the manager and other office bearers from amongst their own rank. The capitalist is thus displaced under producers cooperation. The worker not only own the business but also manages it themselves through their elected representatives. The profit accruing from business is distributed among the workers.

These cooperative society helps to eliminate class struggle, controls wastages, promotes educational value. The disadvantages it promotes are:

(*i*) Deteoriation in the standard of management.

(*ii*) Inadequacy of Capital and

(*iii*) Government Control.

2. ***Consumers Cooperatives:***

This type of organisation was first introduced in Britain. The consumers belonging to a particular locality get together to organise a cooperative society. They make their own capital contribution. The society buys essential consumer goods and directs them from the producers and sells them at market price to the members as well as to the non-members. The profits made after a year are then distributed among the member according to two criteria. They are:

(*i*) Capital contributed by the members.

(*ii*) Purchase made by members concerned.

Those persons who have made larger purchases will be entitled to large portion of the profit. This has two advantages:

(*i*) It induces the members to purchase from the cooperatives store and not from private trader.

(*ii*) It encourages more people to become member of the cooperative store.

3. ***Credit Cooperatives:***

This type of cooperatives was first started in Germany in the 19^{th} century. Thousands of Cooperative Credit Society have been started in India to meet the credit requirement of the farmers. A number of farmers may join together to form a Cooperative Credit Society. They may make small cash contribution by buying the shares of the society. This is the working capital of the society. The society gives loans to its members against approved security at reasonable

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economic activity to protect the weaker section of the society. Cooperative organisation is a Compromise between Capitalism and Socialism.

The Cooperative has its drawback. It cannot run large scale business enterprise which requires specialised management and large capital investment.

Joint sector: The joint sector implies the participation of both the government and the private sector in the business. Under this organisation, a firm is owned and run jointly by the government and a private entrepreneur. The public and the private sector work together under the same roof and put a mutual checks on each other. The best aspects of these two type of organisations are combined together in the interest of the public. Not more than 50% of equity can be owned by the government and financial institution together A single private investor is not allowed to hold more than 25% of the equity of the government of India. **The advantages of the joint-sector** are (*i*) helps to foster the industrial development with social justice, (*ii*) It checks the growth of monopoly and malpractices in the business, (*iii*) It provides scope for movement financial viability and strengthm, (*iv*) It combines the best of both the systems, (*v*) It makes nationalisations unnecessary.

There are some limitations:

1. There may be conflict between the two parties.
2. It may lead to managerial autonomy making the owner passive in business.

5.9 THE CHOICE OF THE ORGANISATIONAL FORM

The choice of the organisational form is closely related to the objective of the owners. It is very personal issue, the individual investor should be balancing the institutional requirements, economic opportunities and risk and uncertainty factors in his own perspective while making a choice of these organisational form so as to assess the prospects of his business.

before it receives any return. The machines are to be purchased, the factory space is to be purchased or leased, raw materials are to be bought and wages and salaries are to be paid to the employees for their services. Finance is needed to undertake all such activities in business. The money which the firm commits on its business is expected to come back to the firm in the form of return in due course of time. The firm has to wait for this. A farmer ploughs and sows his fields months before he reaps the harvest. A transport company has to buy trucks and motors and pay for petrol, labour, etc., before it gets paid for its haulage services. Similarly, a manufacturer has to produce goods before he can sell them. He can do so only when he has adequate finances for production of his goods. It is true that in some industries goods are sold before they are made but even in such industries the entrepreneurs need finance to equip themselves for necessary facilities of production of the goods and services. Finance is thus a necessary precondition for business both for its initiation and smooth running.

The requirement for finance depends on the type of business or production and the kind of payment for which it is to be used. Large scale production with capital-intensive technology would require huge amount of money for initial investment and for operating expenses. Small scale production with relatively labour intensive technology on the other hand may need less amount of money to start the business and to operate it. The nature of technology and the level of output to be produced are natural determinants of the requirement of finance. In some business, it takes considerably long time to set the plant and to make it operative. In business terminology such length of time is called 'gestation period'. Longer the gestation period, more will be the requirement of finance. Steel mills, refineries, ship-building, power plants, etc., are few examples of such businesses. Apart from the gestation period, the length of operating cycle will have considerable implications for requirement of finance. Operating cycle is the speed with which the working capital completes its round, i.e. conversion of cash into inventory of raw materials and stores, inventory of raw materials into inventory of finished goods, inventory of finished goods into book debts or account receivable from the customers and finally realization of cash from the customers. Longer is the period for such cycle more will be the requirement of finance for business operations. The other factors that influence the requirement of business finance can be cited as terms of purchases and sales, growth and expansion policies of the firm, dividend policy, production policies, business cycle fluctuations and managerial efficiency of the firm. In short, initially finance is needed to establish the business, i.e. installation of plant and other facilities which we call 'fixed capital formation'. Once such facilities are developed then money will be needed for meeting the requirements of working capital. The configuration of technical factors, market and marketing forces and internal managerial decisions and efficiency of the firm will determine the need for finance. The relative importance of individual factors in such configuration is likely to vary across the industries.

11.2 TYPES OF FINANCE

There are basically two types of finance—short-term and long-term. Short-term finance is needed to meet day-to-day requirements of working capital, i.e. making each round of production possible. Long-term finance is needed to meet the requirements of fixed capital formation, i.e. to buy long-life assets which are used repeatedly in the process of production. Normally a firm will not commit long-term finance for short-term purposes. A firm, for example, will not use its equity capital raised from stock-market for meeting the requirements of working capital. There is a great risk of capital loss by doing so, since the money invested in short-term uses is not certain to be realized in the form of return from the business. It is only expected to flow back to the firm in the form of realized sales. Between these two categories of finance, e.g. short-term and long-term, there is a third category which is called 'medium-term finance'. There is no unanimity about what constitutes the 'medium' term; it can be any use of money between, say, one to ten years. The medium term finance has considerable flexibility in its uses. It may be sought for investment in plant and equipment and/or semi-permanent or permanent additions to current assets say long-term buffer stocks of certain inputs

higher purchase requirements or leasing of equipment or other property for use in business. The firm can use term finance for retiring a bond issue or redeemable preference shares.

Short-term finance, used in business, is paid back when the goods are sold. It will be recovered fully when every thing produced with its help is sold to the customers at a reasonable price and the cash from the sales is realized by the firm. After making appropriate deductions for profit, depreciation and other imputed values, the firm uses the balance of the sales revenue to finance the next round of production. There may be deficiency in financing the successive rounds of production when the output of the previous round of operation is not sold fully in the market and thus part of the working capital remains unrealized. The deficiency of funds may also arise as a result of increase in cost of production and upward revision of the production target. In all such situations, the firm would be in need of additional short-term finance which could be arranged by either drawing from the reserves of accumulated retained earnings and depreciation or borrowing from outside. Retained earnings and depreciation reserves are generally used for long-term financing, i.e. for expansion of productive capacity of the firm or replacement of old unserviceable equipment by new one. If such reserves are diverted towards short-term uses then there may be deficiency in financing the long-term expansion plans of the firm. Again it has to go to the market for borrowings to cover up such deficiency. Both the types of finance are, thus, used for different purposes. The firm is likely to face difficulties or complications in proper use of its money if there is overlapping in the uses of short-term and long-term finances. The overlapping is possible of course in the case of medium-term financing.

Besides the requirements of finance for short-term and long-term purposes a firm would need money to meet future uncertainties and business-risks. Fraud, embezzlement, thefts, fire-destruction, etc., are some example of business-risks and uncertainties. Firms generally maintain adequate financial reserves to meet such situations. There is no specific name for this type of financing. Some of the risks are covered through some short-term provisions such as insurance coverage but, by and large, there is no standard procedure to account for them regularly. Each firm will be having its own criterion and judgement to meet the financial requirements for risk-coverage. Its short-term and long-term financial policies will take care of such requirements mostly on probability basis. So, we may still classify the finances into two general categories: short-term and long-term, and add a third one to them which is called 'medium-term finance' as defined and discussed above.

11.3 SOURCES OF FINANCE

A more important inquiry in connection with the financial analysis is to examine the sources of short-term and long-term finances. Where from we get them and at what cost, is a highly relevant question. In this section the first part of this question is being examined leaving the second part for the later section. Sources of finance can be divided into three categories:

(i) Internal or Self-Finances comprising of (a) Retained Earnings, (b) Depreciation Provision, (c) Taxation Provisions, and (d) Other Reserves.

(ii) Short- and Medium-term External Funds comprising of mainly (a) Bank Credit, (b) Hire-Purchase Debt, (c) Trade Credits, and (d) Fixed Deposits.

(iii) Long-term External Funds, i.e. the sale of shares and loan capital.

Internal Sources

Internal funds are generated by the firm itself. The major portion of such funds will be in the form of reserves and surplus which a business firm accumulates annually by retaining a portion of its profits. Apart from retained earnings a business firm makes annual provisions for depreciation allowance, taxation, etc. The accumulated amounts of such provisions constitute the other major element of internal funds. There will be occasionally other miscellaneous items on account of which internal funds are generated such as development

rebate given by the government while determining the taxation liability of the firm. Internal funds are mainly used for long-term purposes. The firm would invest its retained earnings on capacity expansion while depreciation money would be used for replacement of old and unserviceable fixed assets. However, there is no strict rigidity in use of internal funds. If needed, such funds could be used temporarily for short-term purposes. The availability of retained earnings for investment depends on absolute levels of past and current profits, the policy adopted by the firm towards the distribution of such profits (i.e. dividend policy) and scope and need for expansion of the firm. The dividend policy or retained earnings decision of the firm directly affects the current supply of internal funds for long-term uses and indirectly the external funds for such uses, since for a given requirement of long-term funds greater the proportion of internal supply of funds lesser will be the dependency on external sources, other things such as cost of capital, etc., remaining same. The availability of depreciation funds depends on the amount of capital invested on fixed assets, method of depreciation calculation, service-life of the assets, rate of discount, etc. The internal funds available from other sources such as taxation (net of income tax) provision, development rebate, etc., will depend mainly on the government's fiscal and investment policies. Their proportion in the total internal funds will be normally very low or insignificant.

External Sources: Short-term

External funds for short-term uses are raised in various forms such as bank loans, trade credits, commercial papers like bill-of-exchange and other promissory notes, hire-purchase facilities and leasing, etc. Banks are traditional source of short-term finance. They provide credit for industry and trade in the form of loans and overdraft facilities basically to meet the working capital requirements. Such loans mature within a year's time after which they are either returned back with interest or renewed for next year. Banks also provide medium-term loans to meet the requirements of fixed capital formation pending the raising of long-term finance through other sources. Availability of bank finance depends on good banking relations, cost of borrowing, repayment terms, credit-worthiness of the firm, and nature of business whether it is risky or not, etc.

Trade credits is another important form of short-term financing. It refers to the sale of goods on not cash terms. A firm receives trade credits when it pays in arrears for goods and services received from its suppliers; it gives trade credits when it allows its customers time for paying the bills. The firm giving trade credit records it under 'accounts receivable' and the firm on the receiving end records it under 'accounts payable'. Trade credit is given and received by the firms largely in manufacturing and distributing sectors. It is now becoming popular in other sectors of economy also. There are four important factors which determine the volume of trade credits. They are: (1) the nature of product, (2) the seller's financial position, (3) the buyer's financial position, and (4) the terms of sale, i.e. the cash discounts. The nature of product refers primarily to the speed of sales turnover. The products that have faster sales turnover, i.e. sell quickly in the market, are sold on shorter credit terms as the firm giving such credit would not be facing slackness of demand for its products and consequently accumulation of inventories. Where demand prospects are weak, i.e. sales turnover is slower the terms of trade credit will be longer. The seller's and buyer's financial positions jointly determine the availability and terms of trade credits. A seller having strong financial position may offer favourable credit terms for longer period than a seller whose financial position is weak. Similarly a buyer with strong financial position may prefer shorter trade credits as he would like to have benefits of cash discounts while buying the goods. A buyer having weak financial position would not be able to get such cash discounts. His option will be to prefer longer trade credits. Cash discounts will have independent influence on the length of credit. A seller may induce its buyers to reduce the length of trade credit received by them by offering high cash discounts. Trade credits are flexible and readily available sources of short-term finances. However, there will be costs associated from the seller's and buyer's sides in trade credit transactions which are to be properly balanced with the advantages of the system.

Another source of short-term finance is commercial papers which consists of the unsecured promissory notes of large firms sold primarily to other large firms and financial institutions. The 'bill-of-exchange' is

simple example of a commercial paper which is widely used in financial markets for short-term funds. The bill-of-exchange is, in law, 'an unconditional order in writing, addressed by one person to another, signed by the person giving it, requiring the person to whom it is addressed to pay on demand or at a fixed or determinable future time a sum certain in money to or to the order of a specified person or to bearer'. The person to whom the bill is addressed 'accepts' it by signing on its face. The bill-of-exchange then becomes a legal commercial paper and an instrument for short-term financing. The drawer of the bill (i.e. the person who issues it) can hold it himself until it is due for payment or he might be able to discount it with a bank or discount house and get payment at once less interest for the outstanding period and bank's changes for the service. He might be able to use it after endorsement to pay a creditor of his own if the creditor is willing to accept the bill. The use of the bill-of-exchange is restricted now to large firms. Deferred cheques are now preferred over the bill-of-exchange. In India, 'Hundi' is the conventional form of the bill-of-exchange. Being a form of unconditional promissory notes, the success of the bill-of-exchange in credit market depends on goodwill of the business firms. Commercial papers, including the bill-of-exchange, are usually cheaper than unsecured bank loans. The business circles, particularly the large corporations, find them convenient in use.

Recently hire-purchase system has gained the status of an important source of short-term financing. Firms resort to this practice for buying machinery and plants and other durable goods. It is the easiest way of financing since the firm pays in instalments for the goods and the security of loan (i.e. value of goods purchased) resides in the goods purchased as they belong to the supplier till full payment is made for them. This system of financing, though convenient, may be expensive. It is more appropriate for medium-term financing rather than short-term. There are other miscellaneous ways of short-term financing which on the whole may be quite significant. Fixed deposits with companies under the Companies (Acceptance of Deposit) Rules, 1975, in India, for example, is becoming a popular way of financing for short-term, medium-term purposes than borrowing from commercial banks. Public deposits are channelized in business directly rather than through banks, which eliminates bank profits and service charges from the cost of funding. The facility of public deposits is beneficial only to large corporations. Small business firms run by single proprietors or partners would not be resorting to this method of financing. They depend for their short-term finances on the other sources discussed above and even may go to private unorganized money markets for funds.

External Sources: Long-term

Long-term finance is raised from external sources in the form of share or equity capital and borrowings. The issue of shares and thus raising of share capital from outside is regulated by the government. It is, therefore, also called as 'authorised paid-up capital'. The shares are 'sold' in the market in two forms: ordinary or common shares and preference shares. The difference between these two types of shares has already been discussed earlier (see Chapter 3). Mainly, they are distinguished on the basis of the mode of payment of dividend. The rate of dividend on preference share is fixed which is to be paid even though there may be a loss in earnings. The rate of dividend paid to ordinary shares will be fluctuating depending on earnings and dividend policy of the firm. The proportion of preference shares will normally be extremely low or even insignificant in the total number of shares floated by the firm. A public limited company will collect its authorised equity capital from a large number of shareholders directly or through brokers. A private limited company however restricts the number of shareholders to 50 only.[1] Though the share capital is owned by the owners of the firm, i.e. the shareholders, yet it comes under external funds because it is not earned by the firm itself. It comes from the outside sources. Some shares are, of course distributed by the firm from its reserves and surplus stock to its shareholders. Such shares are called 'bonus shares'. The amount of money shown by such shares will, of course, be defined under internal funds.

1 For distinction between public limited and private limited companies see Chapter 3.

Borrowing of capital for long-term purposes is done in various forms, such as bank loans, institutional finances, bonds and debentures. Long-term bank loans will be given for long period at low rates of interest. Commercial banks may discourage such loans as it is risky and uneconomical for them to commit such funds. Institutional finances, i.e. loans from financial corporations such as Industrial Finance Corporation of India, State Financial Corporations, Industrial Development Banks, etc., generally meet the long-term financial requirements of the firms. International sources like the World Bank, Asian Bank, IMF, etc., also provide long-term loans to the firms through the government channels. Foreign aid, particularly in the form of foreign collaboration between companies, is an important source of long-term external finance.

Bonds and debentures are popular debt instruments. A bond is a security to pay a certain number of money units every six months or yearly until it matures. After that time the borrower pays back the principal of the bond at its face value. A debenture is just like an equity share but it is a loan to the company. A person holding debentures gets interest at fixed rate. He cannot participate in the ownership of the firm. The loan specified by debenture is usually, but not necessarily, redeemable in the stated year or within a stated range of years. It is normally secured on the company's specific assets. Such debenture is called 'mortgage debenture'. The debenture may be secured by a general charge on the assets of the company. It is then called 'floating debenture' and when it is not secured at all then 'unsecured debenture'. If debentures are convertible into shares then they are called 'convertible-debentures'. A growing practice in most of the industries is, now, to issue such debentures. Bonds and debentures are alike as far as their functions are concerned. Both, being debt instruments, save corporate income tax. However, a bond is issued for some fixed time but debenture has not such limit of time.

11.4 CONTRIBUTION OF VARIOUS SOURCES OF FINANCE IN INDIAN SITUATIO

A description of various sources of finance has been presented in the preceding section. Let us now go through some statistics to examine the relative contributions made by various sources in Indian corporate sector. Statistics regarding finance and related matters for Indian corporate sector is being collected and analyzed periodically by the Industrial Credit and Investment Corporation of India,[2] the Reserve Bank of India,[3] the Stock Exchange Organizations,[4] newspapers and periodicals,[5] and various associations of investors.[6] The ICICI and the RBI provide industry-wise data on financial aspects of business while the stock-exchange directory gives financial information for individual firms in different industries. For practical purpose these three sources on financial information are adequate enough.

The ICICI selects about 500 to 700 companies every year for financial analysis. In its latest study[7] a sample of 675 public limited companies were included. According to this study, the proportion of internal and external funds in total finances of all companies was on the average 44:51 per cent for the years 1992–93 to 1995–96. The contribution of various internal and external sources of funds has however fluctuated considerably during these years. Depreciation accounted for 8.6 to 16.6 per cent, and reserves and surplus 25 to 46.3 per cent share in total funds. Similarly, paid-up capital contributed 4.2 to 7.1 per cent, long-term

2 The Industrial Credit and Investment Corporation of India (Bombay), Financial Performance of Companies IC Portfolio: for different years (serial publication).

3 The Reserve Bank of India (Bombay), Financial Statistics of Joint Stock Companies in India 1950–51 to 1960– Ibid., 1960–61 to 1970–71; and RBI Bulletin, various issues for the period 1971–72 onwards.

4 Bombay Stock Exchange Association, The Stock Exchange Directory: various issues.

5 See for example The Economic Times, Financial Express, Commerce (Bombay) and Capital (Calcutta).

6 Kothari's Economic Guide and Investors' Handbook (Madras) and Investor's Year Book (Bombay). For a full lis various sources on financial statistics see S.C. Kuchhal, Financial Management, Chaitanya Publishing Hou Allahabad, 1978, Ch. 2.

7 The ICICI (Bombay), Portfolio 1991–92 to 1995–96, March 1997.

borrowing including institutional finance 3.4 to 19.3 per cent, short-term bank borrowing –0.3 to 12.8 per cent, creditors 7.2 to 13.0 per cent, and unsecured loans and deposits 1.4 to 10.3 per cent funds for the companies during the period. Other sources contributed almost negligible shares. There is randomness as far as the proportions of different sources of funds are concerned for the period.

The Reserve Bank of India takes a larger sample of companies than of the ICICI for financial analysis. The facts about sources and uses of funds of 1700 selected public limited companies compiled by the RBI for the latest years (1992–93 and 1993–94) are given in Table 11.1. The pattern of financing shown by the RBI data is almost similar as revealed by the ICICI study. The contribution of the internal sources of finance was 26.5 and 29.4 per cent for the sample of companies in 1992–93 and 1993–94 respectively. The remaining, i.e. 73.3 and 70.6 per cent contribution was made by the external sources for the two years respectively.

Among the internal sources the major contribution has been made by depreciation provision (16.9%) for 1992–93 and by reserves and surpluses (14.8%) for 1993–94. These two sources of internal finance contributed 11.5% in 1993–94 and 8.18% in 1992–93 respectively. The other internal sources of finance contributed almost negligible share in the total finance. It is clear from the table that industries depend more on external sources for finance. The contributions made by various external sources in the total finance for 1992–93 were in decreasing order as: borrowings 38.3% paid-up capital 22.3% and trade dues and other current liabilities 12.6%. For the year 1993–94 the contributions made by these sources were as: paid-up capital 33.5%, borrowing 19.6% and trade dues etc. 17.4%. Debentures was important source of funding in both the years. Bank borrowings and institutional finances were important for the year 1992–93 but not for the year 1993–94.

Coming to the uses of funds, we find that 52.57% and 48.71% of funds were spent by the companies on gross fixed assets in 1992–93 and 1993–94 respectively of which major portion went to plant and machinery, 45.39% in 1992–93 and 28.94% in 1993–94, followed by buildings around 4% for both the years. The other items had very little shares. The working or current assets had 47.43% and 51.39% share in uses of funds for the two years. Loans and advances was the most important category of expenditure comprising of 25.07% and 22.4% share in 1992–93 and 1993–94 respectively. Inventories was the second most important category (15.8%) for 1992–93 and investments (20.27%) for 1993–94. The relative positions of other categories of current uses of funds for the two years are given in the table.

As far as the utilization of funds for fixed assets formation is concerned we find consistent pattern for 1992–93 and 1993–94. The current assets however had shown varying pattern of fund utilization for these two years.

The RBI data on sources and uses of funds in the years 2005–06, and 2006–07 for 1431 large public limited companies is given in Table 11.2. We may compare the pattern of financing of the companies in these two years with the pattern of financing in 1992–93 and 1993–94 as summarised above. The contribution of internal sources of funds in 2005–06 and 2006–07 increased to 44.02% and 30.29% respectively as compared to 25.66% in 1992–93 and 29.3% in 1993–94. Consequently the share of external sources have shown declining share over these years. Reserve and surplus have shown a rising trend. The share of paid-up capital in external finance declined. Borrowings for 2005–06 have shown a declining share (26.59%) and for the year 2006–2007 a rising share (30.98%) as compared to 1992–93 and 1993–94 respectively. The other sources of internal and external financing have shown by and large constant or little variations over the years 1992 to 2006–07.

The uses of funds over the years 1992–93 to 2006–07 have shown mixed pattern. The share of gross fixed assets formation declined from 52.57% in 1992–93 and 48.61% in 1993–94 to 25.93% in 2005–06, and 36.70% in 2006–07. This decline has come because of declining share of plant and machinery over these years. The percentage share of inventories has shown lower value (11.98%) in 2005–06 as compared to 15.8% in 1992–93 but higher value (10.38%) in 2006–07 as compared to 4.01% in 1993–94. The share of loans and advances was down by about 5% in 2005–06. Investment percentage also declined slightly over these years except as compared to 1992–93, it increased.

The above mentioned trends in sources and uses of funds over time, are giving us some idea about the changing pattern of company finances in India but they are not enough to generalize further on these aspects unless full time series data is not analysed.

Table 11.1 Sources and Uses of Funds of 1700 Selected Public Limited Companies, 1992–93 and 1993–94

(Rs. Crores)

Items	1992–93	1993–94
SOURCES OF FUNDS	(25.66)	(29.36)
Internal Sources	7,060	9,228
A. 1. Paid-up capital	261	243
B. Reserves and surplus	2,166	4,663
2. Capital reserve	(8.18)	(14.8)
	−650	−815
3. Investment allowance reserve	−29	−249
4. Sinking funds	572	757
5. Other reserves	2,273	4,970
C. Provisions	4,632	4,322
6. Depreciation	4,485	3,613
7. Taxation (net of advance of income-tax)	(16.9)	(11.5)
	−126	−64
8. Dividends	254	724
9. Other current provisions	−14	28
10. Non-current provisions	34	21
External Sources	19,425	22,198
	(73.34)	(70.64)
D. Paid-up capital	5,905	10,541
	(22.3)	(33.54)
11. Net issues	1,541	1,848
12. Premium on shares	4,364	8,693
E. 13. Capital receipts	42	59
F. Borrowings	10,147	6,147
	(38.3)	(19.6)
14. Debentures	2,279	3,110
15. Loans and advances	7,940	2,698
(a) From banks	3,067	−865
(b) From other Indian Financial Institutions	(11.58)	
	3,599	979
(c) From Foreign Financial Institutions	(13.29)	(3.0)
	421	921
(d) From Government and semi-Government bodies	225	208
(e) From companies	142	82
(f) From others	486	1,373
16. Deferred payments	−78	−74
17. Public deposits	7	412
G. Trade dues and other current liabilities	3,333	5,458
	(12.6)	(17.4)
18. Sundry creditors	3,006	3,088

19. Acceptances	−693	270
20. Liabilities to companies	−39	16
21. Advances/deposits from customers, agents, etc.	788	505
22. Interest accrued on loans	369	168
23. Others	−98	1,411
H. 24. Miscellaneous non-current liabilities	−3	−7
25. Total	26,485	31,426
USES OF FUNDS		
I. Gross fixed assets	13,923	15,276
	(52.57)	(48.61)
26. Land	152	218
27. Buildings	1,092	1,215
	(4.12)	(3.9)
28. Plant and machinery	12,022	9,094
	(45.39)	(28.94)
29. Capital work-in-progress	106	4,101
30. Furniture, fixtures and office equipments	242	340
31. Others	309	308
J. Inventories	4,184	1,281
	(15.8)	(4.01)
32. Raw materials, components, etc.	511	815
33. Finished goods	2,056	−321
	(7.761)	
34. Work-in-progress	682	481
35. Stores and spares	781	71
36. Others	153	224
K. Loans and advances and other debtor balances	6,641	7,037
	(25.07)	(22.4)
37. Sundry debtors	4,149	3,140
	(15.66)	(9.99)
38. Loans and advances	1,745	3,248
	(6.59)	(10.34)
(a) To subsidiaries and companies under the same management	450	123
(b) Others	1,295	3,125
	(4.90)	(9.94)
39. Interest accrued on loans	51	109
40. Deposits/balances with Government/others	514	164
41. Others	183	375
L. 42. Investments	604	6,371
	(2.3)	(20.27)
M. 43. Others assets	−9	347
N. 44. Cash and bank balances	1,143	1,115
	(4.31)	(3.55)
45. Total	26,485	31,426

Figures in brackets are percentages of the total.
Source: RBI Bulletin Jan. 1997.

11.5 CHOICE OF FUNDING: INTERNAL vs EXTERNAL SOURCES

Once alternative sources of financing are available to a firm it has to make the choice from them. Particularly, the decision is to be taken whether money is to be raised from internal or external sources. If external sources are to be tapped then the obvious question arises about the form in which funds should be raised. A firm may float more shares in the market, it may raise money through debentures and bonds or simply borrow from banks and/or financial corporations or even approach the government or its own friends for help. The choice of the form in which finance is to be raised is not very easy. Let us examine some of the issues involved in making such choice.

As the choice between internal and external finance is concerned, firms in general prefer the former one. There are some advantages from this. It will be easy for the firms to take risks with internal, i.e. own money than with someone else's. The firms will be having flexibility in the use of internal funds. They will not be subjected to the control and pressure of 'outsiders' in the company's affairs which is an inherent difficulty of external finance. The firms pay high 'price' by surrendering control, or a part of it, to the outsiders by taking external finance. Further, the firms need not be under constant pressure of increasing their profits to meet the cost of funding effectively. They may be contented with some 'satisfactory' level of profits with internal money. Whatever be the advantage of internal financing, economists suspect it as conducive to an inefficient use of resources since companies relying on entirely internal funds are subjected to no checks on the relative profitability of their investment, such as imposed by competition for funds in the market. With external funds, a firm becomes more conscious of the cost of financing. It attempts to maximize its profits through efficient management of the funds and their utilization. It is, thus, subjected to the test of the market which makes it more efficient with external funds. It is not of course a necessary condition that external funds make firms more efficient. Firms relying on internal funds, particularly the small firms who find it difficult to borrow or raise money from outside may be as efficient as the firms which are subjected to the market test through external finance provided their management is efficient. Most of the firms go to the market for money when internal sources are not enough. A firm retaining high proportion of its profits for internal financing is likely to lose its wealth as low rate of dividend affects the value of shares adversely. On the other hand if the firm approaches the market for funds frequently in the absence of sufficient internal funds, it has to pay higher rate of interest to cover the creditor's risks due to its high indebtedness. The extreme situations of financing, i.e. hundred per cent internal or external finances are unlikely. The common practice observed in business circles is that firms maintain some appropriate proportion between internal and external funds. The proportion of the funds depends on factors like purpose for which funds are required, profitability of the firm, dividend policy, stability of earnings, relative cost of funds, availability of funds, nature of business, structure of firm's assets and liabilities, ownership pattern of the firm, future expectations and the regulatory policies of the government. Such factors are also relevant to decide about the pattern or structure of a firm's external finance exclusively. Firms are not allowed to raise equity capital beyond a certain limit by floating shares. Similarly, they are not free to issue bonds or debentures beyond the sanctioned limit. Considering all constraints imposed by the government and/or market, firms will take decisions about the financing pattern of their business. The principle of opportunity cost of funds will be the basis for financial decision-making. If opportunity cost of internal funds is high, the firm will use external funds in greater proportion and vice-versa.

In taking financial decisions a firm has to keep in mind that there should not be either under-capitalization or over-capitalization of its business. Under-capitalization is a situation when funds are inadequate for the work they intend to do. If there is such situation, the firm will face several consequences. It will be too much cautious in its uses of funds. It will be foregoing spot bargains, economies of bulk buying and cash discounts due to shortage of finance. It will be dependent on markets for short-term finance. Frequent borrowings by the firm from outside may be viewed as a red signal about the soundness of the firm. Creditors may therefore raise the rate of interest for such firm in order to cover the risks of

defaults. The current operations and growth of the firm are likely to be affected adversely due to under-capitalization. The suppliers of the firm do not get their payments in time. Because of this they slow down the deliveries of materials, etc. This hampers production and consequently long waiting for goods by the customers and eventually a loss of revenue and further deterioration in the financial position of the firm. If production, and hence earnings are maintained effectively (which is unlikely, of course) then under-capitalization makes the profit-rate high. Because of high profit-rate there may be demands from workers for more wages, customers plead for lower prices and the firm is subjected to public criticism for higher profits. This puts the firm in embarrassing situation. If the firm responds to all such demands then its financial position will worsen further.

Over-capitalization is the reverse situation, i.e., funds are more than required. It helps the management in the early stages in bringing the stability in earnings and growth of the firm. However, too much money in the hands of managers is a temptation to waste and inefficiency. This may lead to low income-capital ratio which, in turn, reduces the rate of dividend. Low dividends due to over-capitalization, eventually put unfavourable effect on the market valuation of the firm's shares which implies a loss to the firm. The external financing in such situation becomes more difficult or expensive forcing the firm to rely more on internal sources. If this is so, the firm has to make adequate provision for internal finance to meet its current requirements by increasing retained earnings. This reduces the rate of dividend further which puts the firm in troubles in the share markets. To avoid such possibility the firm may be led to inflate its income by dubious methods in order to show high profitability on cards, though it increases her tax liability. But, to maintain its goodwill in the stock-market the firm has to make some sacrifice. In practice, a rational, i.e. efficiently managed firm, would never allow itself to be in such a trap.

Both, under-capitalization and over-capitalization are undesirable symptoms of business. They are to be avoided. For this, the firm has to be very careful in making estimates of capital requirements for its business. Once such estimates are made the firm looks for the sources of funds. The choice of the sources of funds will be governed by the factors mentioned earlier such as purpose of funding, cost of capital, current and expected earnings, dividend policy of the firm, assets-structure, government policies, etc. It is not very easy to find the optimum structure of financing since this requires a careful balancing of so many interplaying factors. Some complications in this aspect including estimation of capital cost will be discussed later on in this and the following chapters.

11.6 ACCOUNTING

Accounting is a system of recording financial transactions of business in money terms. Such recording is needed for a variety of purposes such as (1) to facilitate control of operations and surveillance of plans; (2) to ascertain the profit or loss earned by the firm over a given period; (3) to present a periodic statement of the assets and liabilities of the firm; (4) to ascertain the sources and uses of funds during a given period; and (5) to satisfy many legal requirements. The first stage of accounting is called 'book-keeping' which is the art of keeping or maintaining accounts in the prescribed manners. From such records, in the second stage, the accountant will prepare many financial statements such as the profit-loss account and the balance-sheet which provide vital information and guidance for control and planning of the business. How efficiently the firm managed its operation is reflected by its financial statements. The firm will be able to find the deficiencies in its financial policies by analyzing the contents of the statements. Accounting, thus, apart from keeping a systematic record of financial transactions provides the basic tools for managerial decision-making. That is why it is an integral part of a business whether it is small or large. In this section we will go through some selected aspects of accounting which are relevant from the point of view of understanding the structure of the firm and decision-making, leaving the bulk of the subject. After giving a brief review of the basic accounting procedure, we will be mainly concerned with the description and interpretation of the balance-sheet and the profit-loss account, computation of the capital cost, depreciation charges, and cost accounting. Finally, we will present a critique of the accounting procedures from the economists' view-point.

Basic Accounting Procedure

There are certain basic principles which are to be kept in mind while preparing accounts. The first is that accounts are prepared for business which is conceived of as an entity separate from its owners, creditors, and others associated with that business. All the transactions of the business are recorded in the books of the business from the point of view of the business. The second principle that is to be followed is that transactions which are of financial nature and can be measured in money terms are recorded in books. Facts like 'good industrial relations', integrity and farsightedness of management, etc., are excluded from the accounts as they are not of financial character and can't be measured in money terms. On the other hand, buying materials, paying wages etc., do have such character and measurability in money terms so they are recorded in the books of accounts. The third principle of accounting is that assets purchased by the firm are recorded in the books at their costs, i.e. the prices paid in acquiring them rather than the prices they command if resold in the market. The acquiring cost of an asset is taken as the basis for all subsequent accounting for the asset. The fourth principle is that all accounting transactions should be evidenced and supported by business documents, e.g. sanctions, correspondence, invoices, vouchers and receipts. Such documents make the account verifiable and help in protecting the assets of the firm from unjustified and unauthorised uses. The fifth and core principle of accounting is the recognition of its dual nature. That is, every transaction has two aspects–giving and receiving. Both these aspects are recorded in the ledgers in the appropriate form. Such pattern of accounting is called 'double-entry system' which is followed in practice by business firms in the standard format for different transactions. It is a basic accounting procedure which makes the things to understand easily and provides a cross check for auditing.

The rule of the double entry accounting is that the account which 'receives the benefit' of the transaction is debited with its money value on the ground that to receive a benefit is to have a liability to the person or the account which imparted the benefit, and the account which 'gives the benefit' is credited with same money value on the ground that in imparting the benefit it has acquired a credit from the person or the account receiving the benefit. For example, if Mr. X gives Rs. 1 lakh on loan to a firm, then Mr. X will have some honour or reputation in the eyes of the firm. His account with the firm will therefore be credited by Rs. 1 lakh and the firm will be debited by this sum. If a firm buys raw materials on cash terms, the Cash Account of the firm will be credited and the Materials Account will be debited by the sum involved in the transaction. Take a slightly bigger example. A proprietor arranges Rs. 30,000 in cash for his business. He pays in cash Rs. 5000 for purchase of material, Rs. 500 for rent and Rs. 100 for transport. He gets Rs. 4000 in cash from sales. He then withdraws Rs. 2000 for his personal use. Using the double entry system of accounting these transactions are recorded as:

Cash Accounts

Credit		Debit	
Increase will be recorded on this side or what comes in:		Decrease will be recorded here or what goes out:	
(1) Cash Arranged	Rs. 30,000	(1) Purchase of Raw material	Rs. 5,000
(2) Cash Sales	Rs. 4,000	(2) Payment of Rent	Rs. 500
		(3) Payment for transport	Rs. 100
		(4) Personal withdrawal by proprietor	Rs. 2,000
Total	Rs. 34,000	Total	Rs. 7,600
		Balance	Rs. 26,400

This is an illustrative example in which cash flows were considered on both debit and credit sides which are balanced in sum. There will be varieties of such accounts. The titles of the various ledger accounts will differ from one firm to another according to the type of business conducted and choice of the journal-classification. We need not go into details of such description at this stage.[8] All that we should keep in mind is that every income and expenses shall be recorded on a classification which enables us to analyze total income and expense in a useful way. The credit and debit side of a single account need not be balanced every time. But, since every credit implies a debit, and vice versa, the total of all accounts should always balance. That is, the sum of the credit balance on some accounts at the end of one particular period, say a day, must be equal to the sum of the debit balances on all the other accounts. The final statements, such as the balance-sheet and the profit-loss accounts, will show such equality condition precisely. These two are very important financial statements from accounting point of view. Let us therefore examine their structure and uses carefully.

The Balance Sheet

In accounting a financial statement that gives a classified list of assets and liabilities at a moment in time, i.e. as on a stated date, is called 'balance sheet'. It is also called 'Statement of Financial Position' or simply 'Position Statement'. An asset, in business, is defined as any physical or financial property or other possession of value to which the enterprise has title, i.e. ownership by virtue of acquiring that. Similarly, a liability in business accounting is the money value of an obligation to somebody as a result of business transaction. A business firm raises capital from various sources as described earlier. In doing so the firm becomes liable to all those who supply funds (including itself) to it. All sources of funds are therefore interpreted as liabilities. The capital raised from various sources is utilized for acquiring the assets such as machines, raw materials, inventories, etc. The uses of funds are therefore called 'assets'. A balance sheet will show us precisely the sources and uses of funds in the form of liabilities and assets. All liabilities are shown on the credit side of the sheet and assets on the debit side. The two sides in sum will balance each other. That is why the table is called as the balance sheet. In preparing such sheet the principle of double entry accounting is followed. The balance sheet discloses the names of all such accounts which show balances (i.e. stocks) such as paid-up capital account, reserve and surplus account, fixed capital account, inventories accounts, etc. We will understand this point clearly when we examine the entries of the balance-sheet carefully.

The assets side of the balance sheet shows entries in value terms for (a) fixed assets, and (b) current assets. Fixed assets are tangible and intangible properties that are capitalized on account of relatively long life and substantial value such as land, building, plant and machinery, furniture and fixtures, trade patents and 'goodwill', etc. They are not intended for resale. The services of such assets are used for longer periods either for production of goods and services or some other purposes in business. Most of the fixed assets will be in physical (i.e. tangible) form but there will be some intangible fixed assets like the right or franchise granted by the government to use some property such as a bus route, the copyright granted by the government and the goodwill of the firm. They will be entered in the balance sheet provided they are measureable in money terms. The 'loss' of fixed assets in production or use, that is, a decline in their value is called 'depreciation'. Total or 'gross fixed assets' minus depreciation is termed as 'net fixed assets'.

8 For full details on accounting procedures and practice, see:

(1) M.W.F. Glautier and B. Underdown, Accounting Theory and Practice, Pitman Publications, London, 1976.

(2) J.K. Lasser's Standard Handbook for Accounts, McGraw-Hill Book Co., N.Y. 1968.

(3) H. Simon and W.E. Karrenbrock, Advanced Accounting, South-Western Publishing Co., Chicago, 1968.

(4) R.L. Gupta and V.K. Gupta, Book-keeping and Accounting, S. Chand & Co., Delhi, 1979.

Table 11.2 Sources and Uses of Funds of the Select 1,431 Large Public Limited Companies, 2005–2006 and 2006–2007

(Rs. Crores)

Sources of Funds	2005–2006	2006–2007
1	2	3
Internal Sources	**645,13**	**774,78**
	(44.02)	(30.09)
A. 1 Paid-up Capital	35,54	17,59
B. Reserves and Surplus	**370,37**	**559,23**
	(25.27)	(27.63)
2 Capital reserve	–7,58	20,81
3 Investment allowance reserve	16	60
4 Sinking funds	–32	2,83
5 Other reserves	378,11	535,00
C. Provisions	**239,22**	**197,96**
6 Depreciation	181,12	189,02
7 Taxation (net of advance of income tax)	26,76	17,02
	(1.83)	(0.84)
8 Dividends	(30,13)	(23,07)
9 Other current provisions	7,12	6,06
10 Non-current provisions	–5.90	8,92
External Sources	**820,56**	**1,248,96**
	(65.95)	(61.72)
D. Paid-up Capital	**227,95**	**259,09**
	(15.55)	(12.80)
11 Net issues	13,30	6,86
12 Premium on shares	214,65	252,23
E. 13 **Capital Receipts**	**2,85**	**1,02**
F. Borrowings	**389,75**	**626,88**
	(26.59)	(30.98)
14 Debentures	–13,06	–22,91
15 Loans and advances	409,66	653,11
(a) From banks	356,00	460,42
(b) From other Indian financial institutions	–30,15	–11,01
(c) From foreign institutional agencies	87,49	137,05
	(5.97)	(6.77)
(d) From Government and semi-Government bodies	9,32	–73
(e) From companies	7,10	24,16
(f) From others	–20,10	43,22
16 Deferred payments	5,96	22
17 Public deposits	–8,13	–3,54
G. Trade Dues and Other Current Liabilities	**200,01**	**361,96**
	(13.65)	(17.89)

18 Sundry creditors	102,87	237,48
19 Acceptances	16,53	12,25
20 Liabilities to companies	–13	2,63
21 Advances/deposits from customers, agents, etc.	49,26	59,61
22 Interest accrued on loans	–4,42	–6,71
23 Others	35,90	56,70
H. 24 Miscellaneous Non-current Liabilities	–	–
25 Total	**1,465,69**	**2,023,73**
	(100.0)	(100.0)

(Rs. Crores)

Uses of Funds	2005–2006	2006–2007
1	2	3
I. Gross Fixed Assets	59996	74272
	(45.93)	(36.70)
26 Land	22,19	33,75
27 Buildings	40,66	60,32
28 Plant and machinery	385,78	459,66
	(36.32)	(22.77)
29 Capital work-in-progress	117,53	138,91
30 Furniture, fixtures and office equipments	14,34	33,81
31 Others	19,46	14,27
J. Inventories	**175,56**	**210,10**
	(11.98)	(10,38)
32 Raw materials, components, etc.	64,34	79,76
33 Finished goods	49,83	66,26
34 Work-in-progress	48,02	45,11
	(3.28)	(2.23)
35 Stores and spares	13,94	11,40
36 Others	–56	7,57
K. Loans and Advances and Other Debtor Balances	**308,00**	**419,03**
	(21.00)	(20.71)
37 Sundry debtors	115,36	173,41
	(17.86)	(8.56)
38 Loans and advances	158,16	188,41
	(10.79)	(9.31)
(a) To subsidiaries and companies under the same management	52,34	54,70
(b) Others	105,82	133,71
39 Interest accrued on loans and advances	–7,06	5,38
40 Deposits/balances with Government/others	13,63	43,59
41 Others	27,92	8,25
L. 42 Investments	**229,85**	**357,17**
	(15.68)	(17.65)
M. 43 Other Assets	3,92	73,85
N. 44 Cash and Bank Balances	**148,41**	**220,84**
	(10.13)	**(10.91)**
45 Total	**1465,71**	**2023,71**
	(100.0)	(100.0)

Source: RBI Bulletin March 2008

Table 11.3 Combined Balance Sheet of the Select 1,431 Large Public Limited Companies, 2004–2005 to 2006–2007

(Rs. Crores)

Capital and Liabilities	2004–2005	2005–2006	2006–2007
1	2	3	4
A. Share Capital	**407,28**	**454,88**	**474,39**
1 Paid-up capital	406,32	453,82	473,37
(a) Ordinary	358,98	398,76	425,98
of which: bonus	67,48	76,18	86,83
(b) Preference	47,34	55,06	47,39
2 Forfeited shares	96	1,06	1,02
B. Reserves and Surplus	**1,837,28**	**2,499,89**	**3,340,75**
3 Capital reserve	741,72	1,023,79	1,324,79
of which: premium on shares	573,17	815,34	1,115,26
4 Investment allowance reserve	1,53	1,68	2,28
5 Sinking funds	47,33	47,02	49,85
6 Other reserves	1,046,70	1,427,39	1,963,83
C. Borrowings	**1,726,50**	**2,120,93**	**2,747,82**
7 Debentures @	234,90	221,84	198,93
8 Loans and advances	1,438,05	1,847,71	2,500,83
(a) From banks	839,71	1,195,72	1,656,13
of which: short-term borrowings	489,64	693,73	913,94
(b) From other Indian financial institutions	246,69	216,54	205,53
(c) From foreign institutional agencies	159,23	246,72	383,78
(d) From Government and semi-Government bodies	30,71	40,03	39,30
(e) From companies	44,55	51,65	75,81
(f) From others	117,16	97,06	140,28
9 Deferred payments	20,81	26,77	26,99
10 Public deposits	32,74	24,61	21,07
of Total Borrowings, Debt	1,086,66	1,288,29	1,634,94
D. Trade Dues and other Current Liabilities	**1,034,89**	**1,234,98**	**1,597,01**
11 Sundry creditors	703,82	806,69	1,044,17
12 Acceptances	61,41	77,95	90,20
13 Liabilities to companies	4,81	4,68	7,31
14 Advances/deposits from customers, agents etc.	96,19	145,44	205,05
15 Interest accrued on loans	51,79	47,37	40,66
16 Others	116,87	152,86	209,62
E. Provisions	**384,26**	**442,36**	**451,29**
17 Taxation (net of advance of income-tax)	195,64	222,40	239,42
18 Dividends	77,79	107,91	84,84
19 Other current provisions	76,75	83,87	89,93
20 Non-current provisions	34,08	28,18	37,10
F. 21 Miscellaneous non-current liabilities	—	—	—
22 TOTAL	**5,390,20**	**6,753,07**	**8,611,25**

@ : Include privately placed debentures.

(Rs. Crores)

Assets	2004-2005	2005–2006	2006–2007
1	2	3	4
G. Gross Fixed Assets	**3,775,54**	**4,661,36**	**5,454,92**
23 Land	91,60	129,14	176,94
24 Buildings	370,95	420,27	485,33
25 Plant and machinery	2,799,06	3,442,73	3,936,08
26 Capital work-in-progress	291,23	409,13	548,04
27 Furniture, fixtures and office equipments	93,14	107,51	141,31
28 Others	129,57	152,59	167,22
H. 29 Depreciation	**1,444,28**	**1,645,38**	**1,858,31**
I. 30 Net Fixed Assets	**2,331,26**	**3,015,97**	**3,596,61**
J. Inventories	676,79	852,21	1,062,31
31 Raw materials, components, etc.	260,33	324,67	404,43
32 Finished goods	213,32	263,15	329,41
33 Work-in-progress	111,41	159,42	204,53
34 Stores and spares	73,59	87,53	98,93
35 Others	18,13	17,43	25,00
K. Loans and Advances and Other Debtor Balances	**1,197,86**	**1,457,04**	**1,875,72**
36 Sundry debtors	615,42	730,78	903,84
37 Loans and advances	426,71	536,05	724,46
(a) To subsidiaries and companies under the same management	139,86	160,26	214,96
(b) Others	286,86	375,79	509,50
38 Interest accrued on loans and advances	18,79	11,72	17,10
39 Deposits/balances with Government/others	87,61	101,24	144,83
40 Others	49,33	77,25	85,50
L. Investments	**777,45**	**870,33**	**1,227,50**
of which: quoted investments	73,45	118,14	172,87
41 Foreign	15,01	25,47	32,56
42 Indian	762,44	844,86	1,194,94
(a) Government/semi-Government securities	34,03	9,55	2,08
(b) Securities of Financial Institutions	258,31	256,86	380,26
(c) Industrial securities	226,51	146,60	173,90
(d) Shares and debentures of subsidiaries	217,84	388,25	586,35
(e) Others	25,75	43,59	52,36
M. 43 Advance of Income-tax (net of tax provision)	—	—	—
N. Other assets	**102,76**	**105,03**	**175,79**
44 Immovable property	11,49	10,56	58,66
45 Intangible assets	91,27	94,46	117,05
46 Miscellaneous non-current assets	—	—	8
O. Cash and Bank Balances	**304,08**	**452,49**	**673,32**
47 Fixed deposits with banks	222,09	340,11	513,78
48 Other bank balances	67,04	94,15	136,44
49 Cash in hand	14,95	18,23	23,10
50 Total (I to O)	**5,390,20**	**6,753,07**	**8,611,25**

Source : RBI Bulletin, March 2008

– : Nil or negligible.

Current assets are those properties which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business, say a year. They are not capitalized. Such assets will be in the form of (a) inventories of raw materials, finished goods including semi-finished products, stores and spares, (b) loans and advances (including amount yet to receive from customers) given by the firm; (c) marketable securities, i.e. short-term investment made by the firm, e.g. bonds, debentures, government securities, etc., and (d) cash in hand and bank balances. All current assets are also known as working assets. They are easily convertible into cash (i.e. liquid money) for short-term financing of business.

The liabilities side of the balance-sheet will have (1) long-term liabilities and (2) current liabilities. Long-term liabilities are all kinds of debts obligations that are due for settlement after one year. The shareholders' equity or net worth, i.e. the sum of their own money such as paid-up capital and reserves and surplus, long-term borrowings and miscellaneous non-current liabilities such as deferred dividend payment, deferred taxation liability etc. come under this category. The net worth, i.e. paid-up capital and reserve and surplus, causes 'internal liability', i.e. it is liability of the firm towards its owners who supplied the money for use in its business. Current liabilities are the values of those obligations that are due for settlement within the current accounting period, i.e. the year. They include short-term borrowings, accounts payable, e.g. sundry trade creditors, taxes and provisions, promissory notes such as bill-of-exchange payable within the year and like that.

The choice of the format for balance-sheet is a matter of convenience to the firm. It may be 'horizontal presentation' in which liabilities and assets are shown side by side, or 'vertical presentation' in which liabilities are presented first and then assets vertically below as shown in Table 11.2. The individual items of the balance-sheet need not balance but total liabilities will always be equal to total assets. All entries in the balance sheet will be at historical costs particularly for fixed assets as shown in the books of the firm. An illustrative example of the combined balance sheet for the selected Indian companies prepared by the Reserve Bank of India is given Table 11.3. It is fairly comprehensive balance-sheet. In practice, most of the firms condense their balance-sheet by taking the aggregates of different categories on liabilities and assets sides.

The balance sheet is an indispensable financial statement. It is needed by the owners of the firm to assess financial soundness of their firm. In what form capital is realized and how it is used is clearly shown in the balance sheet. For control of the capital structure, such information is vital. The creditors, government officials and potential shareholders will also assess the financial soundness of the firm by looking at its balance sheet. The bulk of data for financial planning is obtained from the balance sheet.

The Profit-Loss Account and Income Appropriation Statement

The profit-loss account, or alternatively called as the income statement, shows the revenue and expenditure account for a period of time. The sources of revenue income and expenditure items are separately indicated in the profit-loss account. The difference between total revenue and total expenditure during the period constitutes the profit to the firm. It will be loss when the expenditure exceeds total revenue. The entries in a profit-loss statement are the flows during the period. Revenue is realized through production of goods and services, work done for consumers and other income like dividend, interest, rent earned by the firm, sales of by-products, etc. The expenditure includes all administrative and operating expenses incurred by the firm during the period. The format of profit-loss account varies from country to country or firm to firm. A common pattern that is, by and large, followed in India is shown as below.

1. *Value of Production and Other Income*: This will be a sum of (a) sales net of rebate discounts, excise duty, and cess, (b) increase (+) or decrease (–) in the value of the stock of finished goods and work-in-progress, (c) other income such as dividends, interest, rent, by-product sales, work done for others, and (d) non-operating surplus (+) or deficit (–).

2. *Total Expenditure*: This includes (a) materials, stores and other manufacturing expenses, (b) current repairs, (c) salaries and wages, (d) managerial remunerations (TA and DA, etc.), (e) welfare expenses, (f) selling expenses, (g) depreciation, (h) other provisions like rent, provident fund, local taxes, bad debts, royalties, (i) insurance charges, and (j) other miscellaneous expenses, such as R&D expenses, etc. The difference between total value of production and other income and total expenditure (i.e. (1) – (2)) is called 'gross-profit'. The distribution of gross profit as interest, taxes, dividend and retained earnings is called 'appropriation of income'.

The identities for this will be:

Gross Profit – Interest = Profit Before Tax or Operating Profit

Profit Before Tax – Corporate Income Taxes = Net Profit

Net Profit = Dividend + Profit Retained

Table 11.4 Combined Income, Value of Production, Expenditure and Appropriation Accounts of the Select 1,431 Large Public Limited Companies, 2004–2005 to 2006–2007

(Rs. Crores)

Item	2004–05	2005–06	2006–07
1	2	3	4
Income and Value of Production			
1. Sales +	4,569,72	5,424,88	6,969,76
2. Increase (+) or decrease (–) in value of stock of finished goods and work in progress	32,24	96,73	111,15
3. Value of production (1 + 2)	4,601,95	5,521,60	7,080,91
4. Other income	137,20	160,06	209,26
of which: (a) Dividends	12,99	16,96	28,11
(b) Interest	23,91	31,66	42,14
(c) Rent	3,72	4,27	5,10
5. Non-operating surplus(+)/deficit(–)	30,15	35,80	29,59
6. Total (3+4+5)	**4,769,31**	**5,717,47**	**7,319,76**
Expenditure and Appropriations			
7. Raw materials, components, etc., consumed	2,480,37	3,036,93	3,872,67
8. Stores and spares consumed	146,00	163,20	186,48
9. Power and fuel	257,46	291,13	338,32
10. Other manufacturing expenses	173,43	215,21	299,80
11. Salaries, wages and bonus	236,93	291,02	374,26
12. Provident fund	22,43	23,27	27,43
13. Employees' welfare expenses	28,38	29,70	35,88
14. Managerial remuneration	10,02	12,09	16,24
15. Royalty	9,11	12,57	15,83
16. Repairs to buildings	9,00	9,01	10,39
17. Repairs to machinery	41,49	44,61	53,02
18. Bad debts	15,66	17,36	15,49
19. Selling commission	47,24	52,21	64,07
20. Rent	25,33	43,42	31,50
21, Rates and taxes	16,41	17,33	18,69

22	Advertisement	44,12	50,98	63,73
23	Insurance	13,52	14,35	16,13
24	Research and development	13,87	15,87	19,98
25	Other expenses	319,28	360,60	477,04
26	Depreciation provision	212,12	229,37	276,95
27	Other provisions (other than tax and depreciation)	6,93	4,78	4,02
28	Gross profits	610,05	746,63	1,072,24
29	Less: Interest	124,40	123,10	153,28
30	Operating profits	485,66	623,54	918,96
31	Non-operating surplus(+)/deficit(–)	30,15	35,80	29,59
32	Profits before tax	515,81	659,34	948,55
33	Less: Tax provision	124,89	153,34	218,51
34	Profits after tax	390,92	506,00	730,04
35	Dividends	86,57	122,32	137,67
	(a) Ordinary	85,35	121,00	135,88
	(b) Preference	1,21	1,32	1,80
36	Profits retained	290,89	386,47	584,93
37	**Total (7 to 28 + 31)**	**4,769,31**	**5,717,47**	**7,319,76**

+ : Net of 'rebates and discounts' and 'excise duty and cess'.

Source: RBI Bulletin, March 2008.

Total value of products and other income will be equal to total expenditure and appropriation. A profit-loss account together with income (or profit) appropriation by the 1431 companies in India as compiled by the Reserve Bank of India is given in Table 11.4. In a simplified income statement one may show the expenditure items under fixed costs, variable costs and selling costs but this practice is not followed in India.

The profit-loss account has two important uses:

(i) The share-holders (including potential one) get precise knowledge about the earnings of their company, and

(ii) The government can determine the tax liability of the company for the concerned year.

The creditors will also be interested in profit-loss account of a firm in order to assess its credit worthiness. Like the balance sheet, a profit-loss account is an indispensable financial statement. These two statements are shown in the annual report of every firm and published together (in the case of public limited companies only) whenever the firm approaches to the markets for equity capital, loans and fixed deposits and selling of its shares.

Both the statements have obvious links. The operational aspects of the firm do make changes in the assets and liabilities particularly the current assets and current liabilities. As a result, a balance at the beginning of the accounting year and at the end of the same will be different. The equity capital may remain the same but other items of the balance sheet may change. For example, if there are positive retained earnings shown in the profit-loss account, they will be transferred to reserve and surplus on liability side and to cash or bank balances on the assets side of the balance-sheet.

Cost of Capital

The cost of capital plays a very important role in appraising investment decisions. Whenever a firm raises capital from different sources it has to consider the cost of capital very carefully for making the final choice. Even the uses of capital will be evaluated on the basis of the cost of capital, as we will see later on in

Chapter 13. What constitutes the cost of capital and how to measure it is a relevant question particularly from the practical point of view. In this subsection we will deal with this question.

In pure economic theory, the cost of capital is generally taken as a single rate of interest. This is an abstract concept of the capital cost based on the assumption of perfect competition and certainty in the capital markets. But capital markets will be rarely under such situation. Because of imperfections in the capital market a firm procures funds for investment from a variety of sources as discussed earlier. It pays different prices for getting funds from different sources such as equity, borrowings, retained earnings, etc. If the price of funding or what we call, the cost of capital, from individual sources is known to the firm, it can compute the overall or combined cost of capital by taking the weighted average of the components. Such average of the costs of capital will normally be different from the normal market rate of interest. If computed carefully after taking into consideration the desired functional attributes, the overall cost of capital will serve as a financial standard for relative profitability, as a minimum acceptable rate of return, and as cut off point for capital investment decisions. The functional attributes that are to be satisfied by the cost of capital measurement are: (a) it must account for the variety of financing means available to the firm, (b) it must account the effects of various degrees of uncertainty of expected future returns associated with different uses of funds within the firm, (c) it must be sensitive to, and reflect, the changes in the capital market from which all sub-sources of capital are ultimately derived, and (d) it must allow for the differential effects of financing combination on the amount and quality of residual net benefits accruing to the stock holders.

In practice, it is very much difficult to measure the capital cost precisely. For the contractual obligations such as borrowings from external sources the measurement of capital cost is not difficult. The borrowing rate may be used for this purpose after modifying it for the risk and tax liability, etc., of the firm. In the case of other sources of funds like equity and retained earnings the problem of measuring capital cost is very difficult. For such funds one has to use the principle of opportunity cost in order to find their implicit costs since there will be no explicit cost of funding associated with them. The implicit cost of capital may be defined as the rate associated with the best investment opportunity for the firm and its shareholders (or their consumption opportunities) that is to be foregone if the present use of the funds is accepted. It is difficult to find the opportunity costs of funding precisely. Only some crude approximations are made for them which we should like to summaries briefly as follows.

The general principle used to estimate the cost of capital procured from any source is to find the rate of discount which makes the present value of the future stream of cash flows generated by the investment equal to its original value. To be specific, let P_o be the net amount of funds received and invested at time O; $C_1, C_2, ..., C_n$ be the cash flows generated by the investment in periods 1 to n respectively; and C_o be the issuing cost of the funds at time O. Using the inverse of the compound interest term, we can write the equation:

$$P_o = C_o + \frac{C_1}{1+K} + \frac{C_2}{(1+K)^2} + ... + \frac{C_n}{(1+K)^n} \qquad (11.1)$$

where K is the rate of discount and n is the life-span of the investment. The right hand side of this equation is the sum of the present value of the cash flows generated by the investment. If $C_1, C_2, ..., C_t, ..., C_n$ are known through estimates then K, i.e. the rate of discount or the cost of capital can be known through solving the equation (which is of course not very easy).

Let us think of applying this equation to find the cost of debt capital, P_o will be interpreted the amount of loan given at time O; C_o is the cost of floatation and underwriting of the debt when it is issued; $C_1, C_2, ..., C_n$ will be interpreted as after-tax cash flows of interest payments, amortization costs and principal amount repaid over the life of the debt. When we known all these, the cost of debt capital (K) can be estimated using equation (11.1). Such analytical approach to find the cost of debt may not be followed by the firms in practice. They use rather simpler technique such as:

$$K = (1-t)R \tag{11.2}$$

where R is the contractual rate of interest; t is the marginal tax rate and K is the effective cost of debt capital.

If $R = 0.10$ (i.e. 10%) and $t = 0.25$, then $K = 0.075$ or 7.5%. This formula is applicable when earnings before interest and taxes (EBIT) are equal or exceeds the interest charge. If EBIT is negative then $t = 0$ and K will be equal to R.

For long-term debt in the form of marketable security such as bond or debenture, the discounting approach leads to the equation of the cost of funding when $n \to \infty$ (infinity).

$$K = \frac{R}{P} \tag{11.3}$$

where K = cost of debt; R = contractual rate of interest; and P = current market price of the security. A slightly modified version of this equation is:

$$K = \frac{I + D/n}{(P + P_m)/2} \tag{11.4}$$

where D = the amount of discount, i.e. face value minus market price; n = the number of years for maturity; P = current market price of the security; P_m = the maturity price of the security; I = interest income (annual); and K = yield to maturity of the security, i.e. gross cost of debt.

For example, if face value of a bond is Rs. 1000 with 5% rate of interest payable annually for a maturity period of 10 years currently having Rs. 900 as its price in the market, then the cost of capital would be

$$K = \frac{50 + (1000 - 900)/10}{(900 + 1000)/2} = 6.32\%$$

This approach to compute the capital cost of long-term debt in the form of bond or debenture will also be applicable to compute the cost of capital of preference shares. Suppose the dividend rate on a preference share is fixed as 10%. The par, i.e. issue price of the share is Rs. 100. Let its market price be Rs. 105 and the company spends Re. 1 as the issuing cost per preference share. The cost of capital would be simply the ratio of dividend per share to the market price of the share, i.e. 10/105 = 9.51%. However, this rate is not taking into account the issuing cost of the share. To include the issuing cost (if any) we have to modify the denominator of the formula by deducting the issuing cost from the market price of the share. That is, we take into account the net market price of the share. This gives us 10/104 = 9.61% as the cost of preference shares.

The cost of equity capital, which is very important for the managerial decision-making, is very difficult to be measured. The difficulties in its measurement arise because: (a) there is no contractual rate of interest attached to it on which the measurement may be based, and (b) the rate of return on equity capital is very much uncertain. The return on equity capital may be realized either in the form of dividends or in the form of capital appreciation or usually on both. High profitability is an important requirement for both of them. So, eventually it is the rate of profit that is important for the shareholders. To find the cost of equity capital, normally maximization of net worth (i.e. shareholders' own interest in the business) is used as a criterion. The investment of the equity capital will be justified if it increases the present value of the shareholders' net worth. The minimum or break-even situation, i.e. the rate of return on equity which will keep share prices constant gives the cost of equity capital. In specific terms, the rate of discount which makes the present value of the future stream of earnings from the equity equal to its current market value is defined as cost of the equity capital. That is,

$$PV = \sum_{t=1}^{t=n} \frac{D_t}{(1+K)^t} \tag{11.5}$$

As t tends to ∞, this formula reduces to:

$$PV = \frac{D}{K} \quad \text{or} \quad K = \frac{D}{PV} \tag{11.6}$$

where PV is current market price per share and D is cash dividend per share.

An alternative approach to find the cost of equity finance is to take the rate of discount which makes the present value of the dividend stream and capital gains by increase in share prices equal to initial market value of the share. This gives us the final equation for estimating equity cost as[9]

$$K = \frac{D}{PV} + g \tag{11.7}$$

where g is the rate of growth of market price per share. We know, apart from dividend, the shareholders are benefited by the increase in the market value of their shares, g reflects this part of their earnings from the equity capital. Some authors suggested earnings per share instead of dividend per share as the basis to compute the cost of equity. That is, $K = E/PV$, where E is earnings per share (dividend + retained earnings) and PV is current market price of the share or $K = E/PV + g$ when we take into account the growth in the market value of the equity share over time. The difficulty in estimating K through either approach (i.e. using D or E is that both, future dividend and the sale price of the shares, are uncertain. Their estimates may be very much subjective and hence the cost of capital for equity finance may not be precise. To remove this difficulty, it is suggested that cost of equity capital should be estimated on the basis of realized data for the past years. A firm may use the rate of dividend and changes in the market value of shares during the immediate past 5 or 10 years and following the standard discounting approach, get the estimate for the cost of equity capital which may be assumed to hold for future also.

Retained earnings, as we have seen earlier, are now important sources of fund for a business firm. The cost of retained earnings will be in implicit form (i.e. opportunity cost) and not in explicit terms as the firm pays no interest on it to any outsider. How to find the cost of retained earnings then? The method is broadly same as discussed above in the case of common stock. Only some minor changes will be made to adjust the effects of taxation. When a firm retains part of its profit, it is actually using the funds belonging to its owners. The owners make the sacrifice of their dividend in expectation of higher returns by investing the retained earnings. The minimum expected return from such investment would be equal to the return which the firm expects from its own business. That is, an assumption is made here according to which retained earnings are equivalent to a common stock. Now it is easy to compute the cost of retained earnings using the formulas given above. Let expected earnings per share for the firm be Rs. 5, and the current market price of the firm's equity be Rs. 50 per share. This would give us 5/50 as the cost of retained earnings if there is no income tax on the shareholders. Let us examine the effect of taxation on the cost of retailed earnings. The opportunity cost of retained earnings to the shareholders is the rate of return they can get by investing the after-tax dividends in alterative opportunities of equal quality. The after-tax dividend per share can be expressed as $(1-t_i)\,D$ where t_i = marginal income tax rate, and D is amount of dividend per share. Further, if a firm retains its income by the amount of D, i.e. the dividend, its wealth increases and therefore subject to the capital-gain tax. The capital-gain tax will be at the same rate as imposed on the increase in the

9 For proof see:

(a) M.J. Gordon and E. Shapiro, 'Capital Equipment Analysis: The Required Rate of Profit' Management Sciences, 3 (1956), p. 102; and

(b) E. Solomon, The Theory of Financial Management, Columbia University Press, New York, 1933.

market price of the equity share. Let t_c be the rate of capital-gain tax, then the cost of retained earnings can be expressed as $(1 - t_i)\ D/(1 - t_c)\ PV$, where PV is current market price of an equity share. Let D = Re. 1 per share, and PV = Rs. 10, $t_i = 0.5$ and $t_c = 0.25$, the cost of retained earnings would then be equal to $(1 - 0.5)$ $1/(1 - 0.25)$ 10 = 6.66%. If there are no taxes ($t_i = 0$, $t_c = 0$) then cost of retained earnings would be 10% in this example.

We have briefly examined the procedures to compute the cost of capital associated with various types of financing. The weighted average of all component of capital cost would give us the overall or combined cost of capital for the firm. Let k_d, k_e, and k_r be the costs of debt, equity and retained earnings in the total capital of the firm. The overall cost of capital for the firm can be specified as $K = w_d k_d + w_e k_e + w_r k_r$ (remember $w_d + w_e + w_r = 1$).

Estimation of the cost of capital is a highly controversial subject and so far the various measures suggested for its different components, as described above, are in crude forms only. Despite the variety of sources of funds, the institutional and tax complications, the varying degrees of credit-worthiness and corresponding interest charges that exist and the interrelationships that occur between the cost of the individual capital components, the calculation of the exact cost of capital for business decision-making is possible theoretically. It may however take time to develop practical methods to measure the cost of capital which incorporate all such complications.[10]

Depreciation Accounting

The loss of value of the physical assets used in production is called 'depreciation'. The loss is a continuous process and even if the assets are not used their value declines. In accounting, depreciation is taken as a part of cost of production but this part is taken as 'implicit cost' rather the 'explicit cost'. There are three different meanings attached to depreciation: (1) Physical depreciation—it is caused by a decline in the physical ability of the equipment in the process of production. This type of depreciation will depend on type of use of the equipment and the time for which it is used. (2) Economic depreciation—this may be because of physical depreciation, obsolescence of the technology, changes in tastes and preferences against the equipment and the psychological factors. Such depreciation is difficult to measure precisely. One may use the conventional technique of cost-benefit analysis of replacement investment for this purpose. (3) Accounting depreciation—this is estimated value of depreciation which is included in the cost of production and which is recorded in the books of the firm and hence called 'accounting depreciation'.

The aim of accounting depreciation is to spread the cost of equipment over its service life in a systematic way. It is thus an allocation process and not of valuation. It is assumed that the rate of accounting depreciation includes the rate of physical and economic depreciation.

There is no unique method to calculate depreciation. A few methods have been suggested from which the choice is to be made. The methods are briefly described as follows:

(1) *Straight Line Depreciation Method:* This is the simplest method used in calculating the rate of depreciation. This is based on the assumption that the value of an asset depreciates at a constant rate over its lifetime. Let us take 'I' as the investment on the asset, i.e. its value which depreciates. Let 'S' be the salvage or scrap value of the equipment at the end of its life which is estimated as n years. The rate of depreciation for the equipment using the straight line depreciation method would be:

$$d = \frac{I - S}{n}$$

where d is the amount of depreciation in value per year.

The rate of depreciation, i.e. percentage of original investment (I) would come as: $D = [(I - S)/n] \times 100/I\%$. If I = Rs. 5000, S = Rs. 1400, $n = 4$ then d = Rs. 900 or 18% of I.

(2) *The Sinking Fund Method:* In this method we try to calculate an annual amount as depreciation whose cumulative total along with interest earned during the life of the equipment and its salvage value will add up to the initial cost of the equipment. The formula used for this is

$$d = (I - S)\frac{i}{(1+i)^n - 1}$$

where i is rate of interest on deposits, I, S and n have been defined above. If I = Rs. 5000, $n = 4$, S = Rs. 1400, $i = 10\%$, then d = Rs. 775.84 or 15.5%. This method is conceptually better than the straight line depreciation method. However, operationally there is a difficulty with this as how to choose the rate of interest (i) to be used in calculating depreciation is not free from bias.

(3) *Declining Balance Method:* This method is based on the assumption that the value of an asset declines at a decreasing rate, i.e. the amount of depreciation annually decreases with life of the assets. This method is also known as 'fixed proportion method' since depreciation during a particular year is computed by multiplying the balance of net book value of an asset by a fixed proportion. The balance of net book value for a year is the difference of the original cost of the asset and accumulated depreciation till that period. The formula used in this method is:

$$\delta = 1 - \left(\frac{S}{I}\right)^{1/n}$$

when δ is unit depreciation rate.

The percentage depreciation would be

$$D\% = 100 \times \delta = 100\left[1 - \left(\frac{S}{I}\right)^{1/n}\right]$$

If I = Rs. 5000, $n = 4$, S = Rs. 1400, then

$$D = 1 - \left(\frac{1400}{5000}\right)^{1/4}$$

i.e., $\delta = 0.273$ or 27.3%

This method is preferred in business circles as it helps them in recovering greater portion of their investment earlier.

(4) *Sum-of-Digits Method:* This method also assumes that the value of an asset declines at a decreasing rate. The formula used to compute yearly depreciation following this method is given as

$$d_t = \frac{(n - t + 1) \times (I - S)}{N}$$

where t = year for which depreciation is being estimated and $N = 1 + 2 + \ldots + n$, i.e. the sum of years up to the life-span (n).

If I = 5000, S = Rs. 1400, $n = 4$, then $N = 1 + 2 + 3 + 4 = 10$. The depreciation for the first year will be Rs. 1440, for the 2nd year Rs. 1080, for the third year Rs. 720 and for the last year Rs. 360, according to the above formula.

10 For full details on measuring the various components of the cost of capital and related discussion see:

(1) S.C. Kuchhal, Financial Management, op. cit., Ch. 18.

(2) G.C. Philippatos, Financial Management, Theory and Practice, Holden-Day Inc., San Francisco, 1973, Chs. 8 to 10.

(3) Prakash Chandra, Financial Management, Theory and Practice, 4th Ed., New Delhi: Tata McGraw-Hill Pub. Co. Ltd., 1997, Ch. 8.

As mentioned above, depreciation is treated as a part of cost of production. It saves corporate income tax. So, if given free choice, the firms would chose the method of depreciation calculation which gives them higher value for earlier years. The last two methods are suitable for them. However, in practice such freedom is not given to the firms. The government regulates the depreciation calculation by specifying the rates for different industries. The Section 32 of the Income Tax Act 1961 in India specifies the rates of depreciation for different industries. What a firm has to do is to see its place in the classification of the industries and note down the rate specified for calculating the depreciation amount on its net investment.

Cost Accounting

A firm needs cost accounting for various business decision-making such as fixing the prices and discount levels, the choice of products to be manufactured, the selection of techniques of production and expansion of the plant or to determine the best size of the firm, etc. Simple accounting which deals with a record of past receipts and expenditure of the firm as a whole may not be enough for such decision-making. It will no doubt provide very useful guidance for this purpose but apart from having the information on past overall performance and financial position as reflected by the accounts, the firm has to know the sources of profits which is a vital aspect of its business. That is, it has to assess the contributions made by its various departments or activities or/and products in profits. If the firm produces only one standardized product like cement then the financial accounts would give much of the information needed for this purpose in the form of unit cost of production and price derived from the aggregate accounts. However, in practice firms do produce a variety of products or services. In order to make the choice of the products or services for production the firm has to do the cost accounting exercise for every individual product, activity or department separately. Further, decisions, by definition, are concerned with the future. For this, the manager requires an estimate of costs and revenues which is the basic purpose of the cost accounting. The data used in cost accounting will be much the same as used in financial accounting such as the cost of materials derived from invoices or other purchasing records, labour costs from the wage records and time sheets, and many other such records for derivation of the other costs. The pattern of analyses and aggregation of data in cost accounting will be however quite different from that in financial accounting. Cost accounts classify expenses not according to type but according to the purpose for which they were incurred.

The first step in cost accounting is to classify all costs into two categories: Direct or Prime costs and Indirect or Overhead costs. Under Direct or Prime costs all those costs are included which vary with the level of output or which are directly attributable to a particular activity or product or batch of products. Material cost, labour cost, fuel and power consumption are few major items of such cost. In indirect or overhead costs the expenses other than direct costs are included. Such expenses are not attributed directly to a particular activity or product. They provide a simultaneous service to different activities or products. Few examples of such costs are: supervision and administrative costs, selling expenses, rent, interest, and depreciation. All are elements of fixed costs in the terminology of the theory of the firm.

The cost accounts consider only those costs which involve actual or prospective money outlays. If an owner works himself, this will not be treated as cost unless there is an explicit payment for his services. Similarly, no interest will be paid if capital is not borrowed from anywhere.

The major problem in cost accounting is that of allocating overheads to products, jobs, departments or activities in order to arrive at the total cost per unit or per job and so on, which is the usual basis of pricing. There is no set pattern for such allocation which is, of course a complicated task. Many firms allocate all overheads to different jobs or products on one single basis such as labour hours or labour costs, machine hours or materials used. For example, selling expenses may be treated as certain fixed proportion of total material costs or total direct cost. R&D cost may be attributed on the basis of labour cost alone. The choice of the basis for allocating overheads may be appropriate for some costs but not for all costs. Consumption of power for example may be allocated on the basis of machine-hours worked but not on the basis of labour hours. If a firm chooses multiple basis for overhead allocation, this may lead to arbitrariness.

Cost accounting is a difficult exercise. It has the following major deficiencies:

(i) Allocation of overhead costs, as we have mentioned just above, is often arbitrary.

(ii) It is not always possible to separate direct and indirect costs accurately.

(iii) Valuation of the stocks of material balances, and work-in-progress is not straightforward. There are different methods for this but which method is to be chosen is not clear.[11] This introduces arbitrariness in accounting.

(iv) Implicit costs are not taken into consideration in cost accounting which is a serious limitation for profitability calculations.

(v) Cost accounting does not give any clear idea about the possible alternatives which are required for business decision-making.

The utility of cost accounting for the firm cannot be undermined on the basis of the above deficiencies. It helps a lot in planning, control and decision-making exercises of the firm. So it is as important to the firm as its business. Wherever there is a business there will be cost accounting.[12]

Economists' Critique of the Accounting Practices

Economists often criticise both financial and cost accounting on many grounds. The major criticism is made about the usefulness of the balance sheet and the profit-loss account in spite of the high claim made by the accountants on them. A balance-sheet is a record of the assets and liabilities of the firm as on a specific date. The accountant makes the book-keeping entries for the values of the assets and liabilities at the original or historical costs. No attempt is made by him to record the value figures in terms of current costs. Investors or others who wish to assess the efficiency of management or the present worth of a firm would like to relate profit to the current market value of assets. The current market value of an asset is defined as the present value of its future earnings. Since future events cannot be known precisely, it will be normally difficult to assess the market value of an asset correctly. Yet some approximation is to be made for this which is normally assessed on the basis of the opportunity cost of the asset in the market, i.e. what the asset is expected to earn if put on the best alternative use. The figures disclosed by the balance-sheet at the original cost minus depreciation for the values of the assets are not of much use for this purpose. They will not show the true profitability of the firm.

The profit-loss account is a statement of the flow of earnings of the firm for a specific period. Apparently such statement is very much useful for the firm and those having interest in it such as creditors, potential share-holders, and the government. However, economists have serious doubt about the validity of the profit-loss account. They find it quite useless from their point of view since it fails to give any idea of the true profits earned by the firm during the concerned period. As mentioned in the preceding chapter (Sec. 10.1), economists define profit as surplus earnings by the firm net of the implicit costs of the entrepreneurship. Accountants, on the other hand, include such costs in profit. So, the concept of profit used in preparation of the profit-loss account is different from what economists think as the profit. This is the reason why they do not find the profit-loss account useful at all. Further, even if accountant's definition of profit is accepted, there are several arbitrary are ad-hoc methods to compute certain costs which affect profit calculation. Take

11 For a discussion on valuation of stocks see: H. Speight, Economics and Industrial Efficiency, 3rd ed., Macmillan, London, 1970, pp. 191–195.

12 For procedures and practices on Cost Accounting see:

(i) Sidney Davidson and Raman L. Weil (Eds), Handbook of Cost Accounting, McGraw-Hill Book Co., 1978; and

(ii) C.R. Crowningshield, Cost Accounting, Principles and Managerial Applications, Houghton Mifflin Co., Boston, 1962.

depreciation provision as an example for this. There are several methods for accounting depreciation charges but which one is to be adopted is not clear. There is no objective criterion for this. Mere adhocism is followed in this regard and it is not clear that the adopted method for depreciation accounting takes care of the physical and economic depreciation of the assets precisely. Further, making historical cost of the assets as basis for computation of depreciation is also questionable. Conceptually, replacement or market value of the asset is a better basis for this but this is not followed in practice. There are other items in the profit-loss account where one may find arbitrariness in accounting. Consider the material cost, a major item of the cost of production in the profit-loss account. A firm draws materials for production from stocks which are accumulated in phases over the accounting period according to the principle of inventory control.[13] If the prices of raw materials change with every consignment purchased, it creates considerable difficulty in valuation of material stocks consumed in production. The valuation process is not straightforward. It depends on the sequence in which the material stocks are drawn from the warehouse. If the consignment which comes first is used first (i.e. first-in first-out) this gives one estimate of material cost and if the last consignment is used first (i.e., last-in first-out) then there will be another estimate of material cost. If the firm uses average value of the stock in cost accounting then this will give the third estimate of material cost. There is no standard practice for valuation of stocks and the arbitrary choice of the valuation method introduces a bias in the computation of profits shown in the profit-loss account.

An accountant is a recorder of the objective facts of business. His duty is to see that the records are correct. He maintains accounts in arithmetical form, i.e. the double-entry, book-keeping system, to prevent arithmetical errors and certain kinds of fraud and to facilitate the settlement of all kinds of liabilities of the firm in arithmetic terms. He is not a valuer. He will assess the value of business in terms of monetary figures recorded in his ledgers. An economist, on the other hand, may not care much about the recorded figures shown in the accountant's books regarding value of the firm or any of its assets. He will be ultimately concerned with finding-out the 'real' value for the firm in market in order to assess the true performance of the firm. From the conceptual point of view, the economist is right to question the usefulness of financial accounts as they serve no meaningful purpose to him. From the operational point of view, however, the principles and conventions of accounting are useful and logical in their context. For example, it is difficult to find the implicit costs correctly. In view of this, the accountant has justification to exclude them from the cost of production and treat them as parts of the entrepreneur's profit.

11.7 CONCLUDING REMARKS

This chapter was designed to give students some exposition of industrial finance and accounting so that they may be able to integrate these two aspects of industries with the main body of industrial economics. Only selective aspects of industrial finance and accounting were covered in this chapter. Each section of the chapter contains basic material of the subject rather than a critical review.

13 Inventory Analysis will be discussed in Chapter 13 in detail.

12 THE ANALYSIS OF FINANCIAL RATIOS AND RELATIONSHIPS

The basic purpose of financial analysis is to assess objectively the performance of a firm on a number of aspects such as its resourcefulness and ability to earn a fair return on its investment; its ability to meet its current obligations effectively; the true worth of its various assets; the extent and character of its liabilities; its ability to raise new funds and to withstand possible setbacks from internal and external sources; and so on. The analysis to examine all such aspects is normally done in terms of interpretation of certain financial ratios and the relationships among themselves. The ratios are derived from the balance-sheet and the profit-loss account of the firm. A ratio, as we know, is a statistical index that provides a measure of the relationship between two variables or figure. The values of different variables shown in the balance-sheet and the profit-loss account when linked together through appropriate ratios provide us a simple, pragmatic and operational way to assess the performance of the firm. The ratios as such will not be of much use unless they are compared with some standard values which may be the targets or objectives of the firm. The deviation between 'actual' and 'standard' values of a ratio will throw considerable light on the related performance of the firm. In this chapter, the plan for study is to describe the popular ratios and see how they are relevant for decision-making. Few selected relationships between various ratios will also be presented in the chapter in order to have an idea of the interrelatedness of the financial decisions of a firm.

12.1 CLASSIFICATION AND DESCRIPTION OF THE RATIOS

The financial ratios are normally classified into five general categories, namely (i) structural, (ii) profitability, (iii) liquidity, (iv) activity and (v) miscellaneous. The structural ratios indicate the composition of liabilities and assets of a firm. The relationships between various sources of funds and their utilization patterns are reflected by such ratios. The profitability ratios show the overall performance of a firm measured in different ways. The liquidity ratios measure the ability of a firm to meet its short-term financial obligations. In activity group, all those ratios are included which indicate the turnover of various classes of assets. More precisely, they reflect the efficiency of resource utilization by the firm. The last category of ratios is a general one in which all other ratios which do not fall in any of the above categories are included. The important ratios of different categories used in financial analysis are as follows.

Structural Ratios

(a) *Gearing Ratio*

This ratio indicates the proportion of debt finance to the total assets of a firm. It may be expressed in a variety of forms depending on how the terms 'debt' and 'assets' are defined for computing the ratio. One

Profit Maximisation Theory of August Losch.

- To get the maximum profit, as stated by Losch, total consumption is important. Higher the consumption rate, greater will be the profit. In this case, he emphasized most on the price reduction of the commodity. Any decrease of price would automatically stimulate the volume of consumption. This can be illustrated by the following diagram.

- In this simple model, it is evident that when price of the commodity drops from R to P, the consumption increases from M to N. The theory of August Losch considered demand as a most important variable. The fundamental objective behind the theory was to find out the most profitable location for industrial establishment

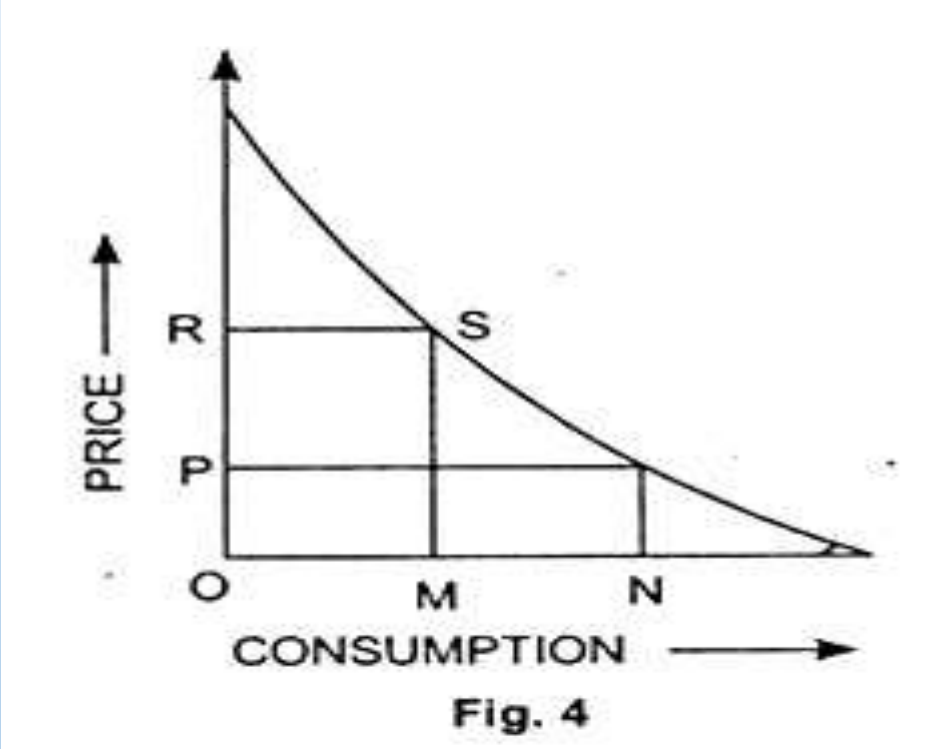

Fig. 4

- To determine the location of maximum profit, Losch said, “The complexity stems from the fact that, there is more than one geographical point where the total demand of a surrounding district is at a maximum,……. We are thus reduced to determine separately for every one of a number of virtual factory location the total attainable demand, and for similar reasons the best volume of production as a function of factory price

- The greatest profit attainable at each of these points can be determined from the cost and demand curves, and from this place of greatest money profits, the optimum location can be found”.

- **Assumption**. The area under consideration should be an extensive homogenous plane where raw materials are distributed evenly. **s of the Profit Maximisation Theory:** 2. The ‘transport cost’ is uniform and directly proportional in all the directions.
- 3. The people inhabiting the region have a general homogeneity either in taste, knowledge and technical skill.

- economic and career building opportunities are open and uniform to all individuals.
- 5. The population distribution is very even and the area is self-sufficient in agricultural production.

- the models developed by Christaller and Lösch are very different because they result in markedly different systems. The permanent K constraint in Christaller’s model means that

- all places at the same level in a hierarchy have the same business types, and all higher-order places must contain all the business types contained in lower-order places. Lösch noted that this does not

- accurately reflect the spatial organization of central places in the "real world." Thus, the model developed by Lösch presents a less definite hierarchical arrangement than does Christaller's. In the Löschian system, settlements of the same size are not

- required to have the same arrangement of business types, and higher order central places do not need to have all the functions available in lower-order places (although they will probably tend to have most of them).
- Whereas central-place theory provides great insights into the hierarchy of urban places, it has shortcomings. For one thing, these models are simply

- descriptive in nature. Additionally, they do not take into account non-optimal human decisions, and fail to consider the historical process through which capitalism developed as the framework in which places come to positions of dominance. Moreover, central-place

- theory deals only with relationships between consumers and producers in a region. It does not consider settlement patterns that are the result of long-distance trade between regions. Furthermore, central-place theory rests on the assumption of uniformity of space.

- Thank you

INDUSTRIAL ECONOMICS;

UNIT 3 INDUSTRIAL PRODUCTIVITY;

- Introduction:
- In the process of economic growth, production and productivity are the two significant elements. Increase in productivity in an essential factor for stepping up the rate of economic growth especially in case of an under developed country which suffers from inadequacy of capital , raw material and skilled manpower.

- Rise in productivity implies rise in production which reflects rise in national income and economic growth rate. In fact rise in productivity is just not sufficient index of rise in growth, rise in productivity must be accompanied by reduction in cost of production of every additional unit. Expansion of output with minimum input implies rise in productivity.

- The concept of productivity: (B.B.Lal)
- Productivity refers to measurable relationship between well defined output and input between the production results and the relative production agents in both the financial and physical terms in relation to given time and condition.

- Productivity refers to ratio between production that is (total output) and factor used in production that is (input)

- Ewan Claugue productivity is a word which we use broadly to express the overall efficiency with which our industries perform

- Russel. W. Fenske defines the term productivity in five ways
- (i) Productivity is a form of efficiency
- (ii) Productivity is the utilization of resources or effectiveness of utilization of resources.

- (iii) Productivity is a ratio
- (iv) Productivity is a ratio (rather than a phenomenon)
- (v) Productivity is a rate of return (primarily in monetary terms)

- J.M.S. Risk defines productivity as a physical ratio; it relates to the quality of goods produced or services given in comparison with the quantity of resources consumed.

- The international labour office productivity as the ratio between output and one of the factors of input is generally known as the productivity of the factors considered. This productivity means the ratio between output and any of the factors of production land, labour, capital and organization.

- Thank you aal see you all in next class; VANKAAM;

Measurement of productivity:

- productivity; refers to a relation between output and input.
-
- 1.productivity = Net output
-
- Effort input

- 2.labour productivity = Net output
- _____
- Number of workers or
- Number of man hours utilized
- Productivity of labour is thus a ratio between output and labour used or number of man hours utilized.

- 3.productivity of capital = Net output
- _____
- Net capital employed
- Net capital employed
- It is a ratio between output and capital employed.

- 4. productivity of machine = Net output
-

_____

- Total machine hours worked

- 5.Land productivity = Net output
- _____
- Number of hectares of land
- Although productivity is measured in terms of all factors of production, that is output rises in proposition to rise in input.

- Although productivity is measured in terms of all factors of production, that is output rises in proposition to rise in input.

- Labour is selected as most important element to measure the ratio of productivity. When output per worker is increasing, the economy would reflect rise in national income and rise in growth rate.

- Defects in measurement of productivity
- 1.it is im possible to measure productivity of service industries like banking. Insurances etc. as the output cannot be directly measurable in terms of physical unit.

- 2.it is difficult to measure productivity of certain industries producing heterogeneous products like chemical engineering , electric, glass industries etc.
- 3.it is not possible to take account of invisible and intangible output or associated services which may have no bearing on current production.

- 4.the quality of labour force is not uniform in nature and therefore measurement based on labour force lacks accuracy.
- 5.the difficulty involved in the measurement of output is of technical character.

- 6.it is difficult to bring long term comparison. Though passing of time techniques, method of production changes which influences productivity.

- Thank you

- Tools of productivity
- 1.use of scientific management technique and practices.
- 2.work, time and motion studies for scientifically determining better and quickers ways of doing a job.

- 3.developing better human relations including the modern concept of industrial sickness between the employer and the employee.
- 4.provision of wages and bonus incentives, adoption of collective bargaining, management workers consultations, workers participation in management training of workers and labour welfare schemes.

- 5.adoption of standardization , specialization and simplification programes in the methods of production.
- 6.adaption of control techniques (including production and planning control), cost control, quality control at each level.

- 7.improvement in working conditions, material handling and plant layout etc.
- 8.selection and training of personnel at the various levels of management.

- Factors influencing industrial productivity
- 1.Technical factor:
- Technologically innovation plays an important role in affecting productivity. The application of mechanical power, introduction of highly specialized and semi-automatic and automatic machines.

- More efficient co – ordination and integration of productive processes specialization are the factors which have contributed to the spectacular advances in raising of productivity.
-

- 2.Financial factor:
- Finance plays a dominating role in affecting productivity. Innovation can be possible only where capital is available in abundance. Adequacy of finance would help to accelerate the pace of industrial productivity especially where labour is scarce.

- 3.Natural factors:
- 1.agriculture industries,
- 2.extractive industries like coal,
- 3. mining,
- 4.physical output is determined by geological ,

5.physical and topographical factors. Natural and climatic factors exercises a vital influence on the industrial productivity.

- 4.Managerial factors:
- Present system of industrial production management plays a vital role.
- 1.decision making
- 2.laying down policy

- 3.organising
- 4.planing
- 5.directing
- 6.controlling staffing
- 7.coordinating
- 8.getting goods produced and selling
-

- 5.social factors:
- The social – economic institution plays an important role indirectly to promote industrial productivity.
- 1.psychological attitude
- 2.behaviour of the investors

- 3.employers
- 4.workers
- 5.consumers
- 6.social values
- 7.attitude of pessimism
- Their attitude to adopt themselves to the new innovative dynamic changes influences productivity to a great extent.

- Thus the socio – economic factors such as the role of decision making capacity of the
- 1. individuals or group of individuals,
- 2. property rights,
- 3.consumer's sovereignty,
- 4. living condition,

- 5.standard of living of the people,
- 6. family system
- 7.religion
- 8.willingness to save etc may stimulate or dampen the urge for higher industrial productivity. Further psychological attitude and behavior of the investor, employers, workers, and consumers. May adjust or retard productivity.
-

- 6.Adminstrative factors
- The administrative and financial policies of the industrial productivity.
- 1.The government’s industrial policy
- 2.taxation

- 3.traiff policies influences the productivity of industrial units.
- At times the policy of protectionism may prove to be barrier to productivity and at times it may be beneficial
-

- 7.Quality of labour force:
- The skill, experience, qualification, intensity of work etc of the worker have dominating pull in influencing the level of industrial productivity.
- Wage, working condition, ability of worker influence productivity.

- 8.Size of industrial unit:
- When other factors like technology, labour etc remain at the same level large scale unit as a rule should be more efficient than the small scale unit. Generally large units spend substantial sum of money on scientific, technical and marketing research which leads to greater productivity.

- *Thank you*

- **Significance of productivity:**
- **Industrial productivity is a statistical measurement on the basis of which we are able to measure compare, the industrial capacity of various industrial units.**

- **Productivity indices reflect the industrial capacity of industrialist.**
- **Productivity indices at the national level have been used as an objective and scientific measure for forecasting the trends in the apparising the economic condition and prospects.**

- **Industrial productivity is considered as a barometer or bench – mark of countries economic and industrial advancement.**
- **On the national level, productivity indices are used to evaluate whether policy of**

- **protectionism or restriction should be adopted, against a particular industry. It also initiates the framers to decide the taxation , industrial, fiscal policy, along with social labour welfare schemes in the limelight of industrial productivity indices.**

- **Productivity indices also assits in analyzing forecasting the economic trends, in evaluating the influence of technological changes on the volume of production employment and in allocation of natural, financial human resources which would maximize national welfare.**

1. **Helps to make comparative analysis**
2. **Helps to make proper allocative distribution of resources**

1. **Helps the government to formulate policies.**
2. **Helps to make an analytical appraisal of performances of an industry.**
3. **Helps in initiation of cordial industrial relations**

•

- ***Thank you***

- **Industrial finance:**
- **There are two major dimensions**
- **1.The sources of finance**
- **2. Effective utilization**

- **A business firms takes decisions on various issues of these two dimensions of financing. Such decisions will have widespread ramifications as the activities of the firm are interrelated and finance is involved in all of them.**

- **In making the choice of financing the firm will examine all such possible effects of the decisions on its position and performance. There will be similar effects of the decisions on its position and performance. There will be similar effects of utilization side of finances on the**

- performance of the firm. A firm having greater proportion of liquid assets in its financial structure may lose profitability. On the other hand, too much fixed assets may lead to a situation when the firm experiences shortage of working assets due to poor liquidity. Considering all such possibilities , the firm has to maintain a

- **proper balance in its assets , uses of funds in the light of its objectives. How financial decisions are made for this as well as for procurement of finances is a comprehensive subject for study which is covered under Business finance or financial management.**

- **The need for finance:**
- **A firm, whether it is owned by n individual proprietor or partners or shareholders, undertakes business in anticipation of future gain or return from it. For setting up in business the firm has to make advance expenditures before it receives any return.**

- **The machines are to be purchased, the factory space is to be purchased or leased, raw materials are to be bought and wages and salaries are to be paid to the employees for their services.**

- **The money which the firm commits on its business is expected to come back to the firm in the form of return in due course of time. The firm has to wait for this. A farmer ploughs and shows his fields months before he reaps the harvest.**

- A transport company has to buy trucks and motors and pay for petrol, labour, etc., before it gets paid for its haulage services. Similarly, a manufacturer has to produce goods before he can sell them. In some industries goods are sold before they are made but even in such industries
-

- Tools of productivity
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- 2.work, time and motion studies for scientifically determining better and quickers ways of doing a job.

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- 2.Financial factor:
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Sargent Florence’s Theory of Location:

- **Definition:**
- **Professor Sargent has followed the inductive method in formulating his theory of location. Sargent's theory is more practical and realistic than that given by Weber. After properly analyzing statistical data, Sargent tried to ascertain the tendency of location of industries**

- On the basis of production census he has tried to find out the statistical measures of location and has not accepted the traditional view of the geographical context, not the region or area as such but the working population in that area is more important. Sargent has used two new concepts in his theory of location.
- Factors:

- On the basis of production census he has tried to find out the statistical measures of location and has not accepted the traditional view of the geographical context, not the region or area as such but the working population in that area is more important. Sargent has used two new concepts in his theory of location.
- Factors:

- i) **Location factor and**
- **(ii) Coefficient of localization**
- **) Location factor:**
- **Location factor indicates the centralization or otherwise of an industry. If the location factor index is greater than unity, there is a tendency of centralization; on the other hand, if it is less than unity, the otherwise is true. In case of unity, a state of evenness exists this indicates that there is neither centralization nor decentralization.**

The location factor index is calculated by using the following formula:

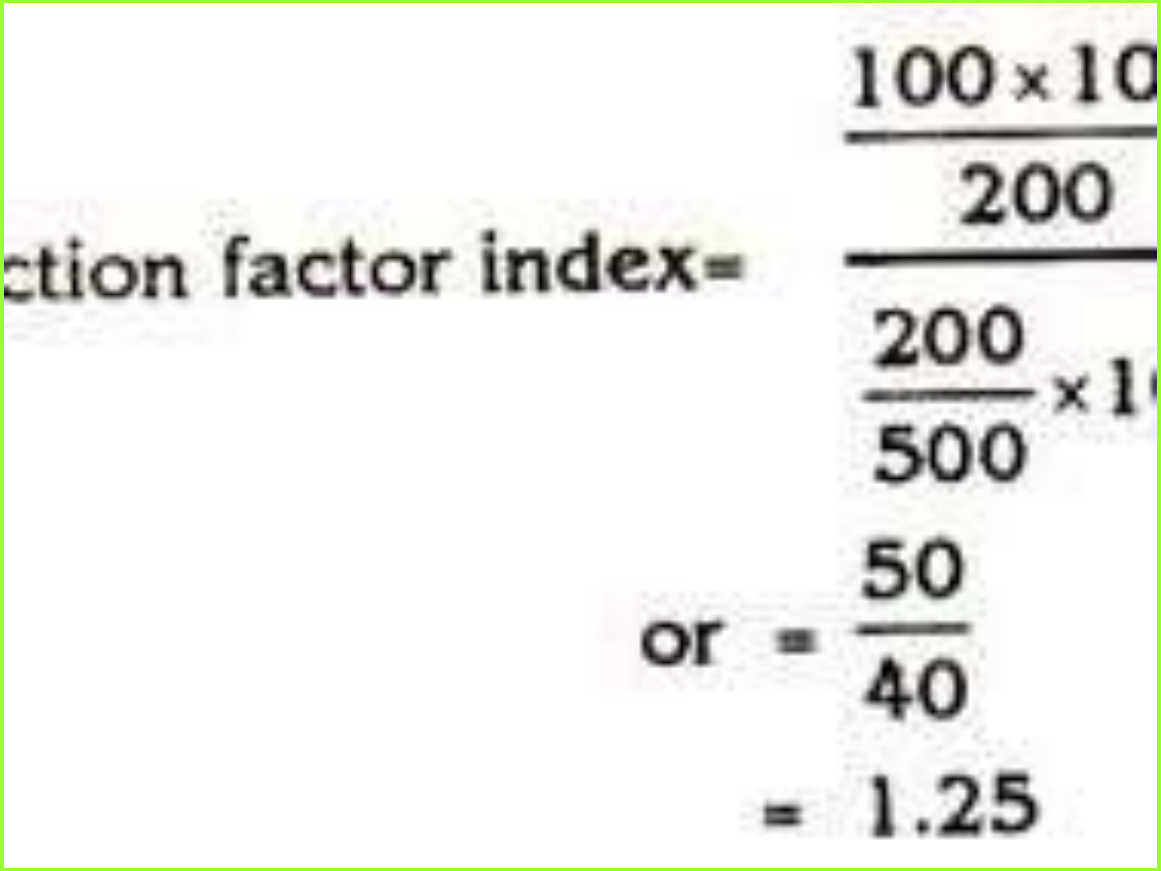
kers engaged in a particular industry of ar
of workers engaged in all industries in the

actor Index

of workers engaged in all industry with
No. of industries workers in the country

ntage of workers engaged in a particul
ion of total numbr of workers engaged
the total industrial workers of the

- We take an example to explain the use of this formula. Suppose that the population of industrial workers in a country is 500; workers engaged in a given area is 200 and workers engaged in a particular industry (cement, etc.) are 100.
- The location factor index will be calculated in the following manner:



The index is greater than 1; therefore, the industry appears to be centralized in that area.

- ii. Coefficient of localization:
- Coefficient of localization indicates the propensity of concentration of industries. This has no relation as such with the area. If the percentage of workers over different areas is also given in percentage, the variance between the two percentages is divided by 100 which give the coefficient of location.

- **If this coefficient is zero, it will mean that industries are evenly distributed over all the areas; if the coefficient is unity or one, it indicates concentration of industries in one area. The coefficient being greater or less than unity will indicate tendency of centralization or decentralization respectively.**
- **The coefficient of localization can be calculated in the following manner:**

$$\text{Coefficient of Localisation} = \frac{\text{\% of workers in the area} - \text{\% of workers in particular industry}}{100}$$

- Take an example:
- Suppose the percentage of workers in the area is 90 and those engaged in a particular industry is 60. The coefficient would be found out in this manner.

$$\text{Coefficient of Localisation} = \frac{90-60}{100} = \frac{30}{100} = 0.3$$

- **Since the coefficient of localization is less than unity or one, industries have a tendency of decentralization in that area. .**

Criticism of Sargent Florence's Theory:

- **Criticism of Sargent Florence's Theory:**
- **1. Ignorance of causes of location:**
- **The theory tells only whether the industry is centralized or decentralised but does not give the causes of such a tendency.**
- **2. Difficulty of knowing propensity of localization:**
- **It is difficult to know only on the basis of coefficient of localization whether there is propensity of centralization or decentralization.**

- **3. Ignorance of favourable local conditions:**
- **The theory does not care for the favourable local factors influencing centralisation of industries.**
- **4. Absence of knowledge of productive capacity:**
- **The theory given by Florence emphasizes the number of workers in calculating the index and coefficient but ignores production. It is difficult to know the productive capacity of different areas. In spite of these deficiencies the theory at least suggests a way to know the tendency of localisation of industries.**

- ***Thank you***

Structure of industrial labour;

- **There are 4 structural sectors in industrial .labours**
- **1 craft union**
- **2 industrial union**
- **3 general union**
- **4 federations**

• Craft unionism

- Craft unionism refers to a model of trade unionism in which workers are organised based on the particular craft or trade in which they work. It contrasts with industrial unionism, in which all workers in the same industry are organized into the same union, regardless of differences in skill.

- Craft unionism is perhaps best exemplified by many of the construction unions that formed the backbone of the old American Federation of Labor (which later merged with the industrial unions of the Congress of Industrial Organizations to form the AFL–CIO). Under this approach, each union is organized according to the craft, or specific work function, of its members. For example, in the building trades, all carpenters belong to the carpenters' union, the plasterers join the plasterers' union, and the painters belong to the painters' union. Each craft union has its own

- union, and the painters belong to the painters' union. Each craft union has its own administration, its own policies, its own collective bargaining agreements and its own union halls. The primary goal of craft unionism is the betterment of the members of the particular group and the reservation of job opportunities to members of the union and those workers allowed to seek work through the union's hiring hall.

- **This distinction between craft and industrial unionism was a hotly contested issue in the first four decades of the twentieth century, as the craft unions that held sway in the American Federation of Labor sought to block other unions from organizing on an industrial basis in the steel and other mass production industries. The dispute ultimately led to the formation of the Congress of Industrial Organizations, which split from the AFL to establish itself as a rival organization. The distinction between craft and industrial unions persists today, but no longer has the political significance it once had.**

- **Craft unionism has receded in many industries as a result of changes in technology, the concentration of ownership and jurisdictional conflicts between craft unions. Craft unionism has not, however, disappeared: it is still the norm in the airline industry, survives despite much upheaval in the construction industry, and even appears, in very muted form, in some mass production industries, such as automobile manufacturing, where skilled trades employees have pressed their own agendas within the union.**[*citation needed*]

- **Industrial union**,
- trade union that combines all workers, both skilled and unskilled, who are employed in a particular industry. At the heart of industrial unionism is the slogan “one shop, one union.”

- Today few unions are organized uniquely on a craft or industrial basis. Instead, large industrial unions may set up special divisions for particular occupational groups within their jurisdictions, and craft unions may become industrial as they organize additional nonskilled workers in new industries.

- .
- organized labour: Establishment of industrial unionism
- With the onset of the Great Depression in 1929, the balance of forces in the United States shifted dramatically. To begin with, national politics became more favourable to organized labour. Partly for ideological reasons, partly because of labour's increasing influence on the Democratic…

organized labour: Breakup of the postwar settlement: Inflation, neocorporatism, and restructuring

- For this, industrial unions that could avail themselves of established systems of industrial democracy and codetermination seem to have been particularly well placed. Indeed, German and Scandinavian unions in particular may actually have contributed to the quality-competitive restructuring of their economies by, on the one hand, foreclosing…

- •
-
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- •
-
- labour economics: Trade unions and bargaining areas
- …divide up until they form industrial unions each embracing all the manual workers in a given industry, as the Swedish unions have done, or to enter into confederations that provide all the unions having members in a given industry with a common front for the purpose of bargaining—the course followed…

- **General Union**
- **The General Union is under the umbrella of the National Union of General Workers, which is itself part of the National Trade Union Council (Zenrokyo) one of the three major trade union federations in Japan.**

- **Structure of the union[edit]**
- **The general union consists of three main areas, the Industrial and Commercial Sector, the Schools and Colleges Sector, and the Private Language Industry Sector.**

- **Industrial and Commercial Sector[edit]**
- **This area of the GU is focused on workers in factories and other industrial employment. It consists of the General Branch, the South American Branch, and the Shinobu Foods Branch. The South American branch is currently active at many workplaces including Fuso and Daisen Kosakusho**

- **Schools and Colleges Sector[edit]**
- **This area of the GU is focused on workers employed in schools and universities. The GU has members at many workplaces, including Ashiya Gakuen High School,[8] Himeji Dokkyo University, Kansai Gaidai University,[9] Kun'ei High School,[10] Osaka Gaigo,[11] Ritsumeikan University,[12] Kobe Shoin Women's University,[13] and Osaka University.[14]**

- **Private Language Industry[edit]**
- **This area of the GU is focused on the teaching of language in the private sector, including workers at eikaiwas and working as ALTs. Amongst other companies it has members at Berlitz Japan,[15] Interac,[16] Gaba,[17] Nova,[18] OTC, Epion,[19] the British Council,[20] ECC,[21] Panasonic Excel International, Coco Juku[22] and Peppy Kids Club.[23]**

- ***Berlitz branch[edit]***
- The GU branch of Berlitz Japan was founded in 1993, and since that time has won a number of improvements for teachers including: Unemployment Insurance and Workers Accident Compensation Insurance enrollment for MG

- **teachers. Health and Pension Insurance (shakai hoken) enrollment for those who work over 30 hours per week. Paid holidays for MG and per lesson teachers. Premium pay of 25% overtime and 35% for work on a set rest day. The right to refuse work on set rest days or national holidays. A pre-consultation agreement with the union before terminating, transferring or changing the working conditions of any union member. Resolving various grievances dealing with dismissals, health insurance, unfair treatment of teachers.[24]**
- ***Coco Juku branch[edit]***

- **Ffederation**
- **ederation of Indian Industry (FII), a not-for-profit organization, is an advisory interface between the Government and Industries. A creation of Industrialist & Philanthropist, Mr.Deepak Jain, with an objective to provide a structured and comprehensive advise and information to Indian Entrepreneurs, Foreign Investors and Government on busine**

- **environment, prevalent laws, operational intricacies, and implementable solutions. FII offers a platform for networking and relationship building within and across the industrial sectors, polToday, the opportunities to expand internationally are better than they ever have been before. Conducting business globally has become an essential part of the overall strategy for many businesses. FII advices on vital information related to Government incentives, tax**

- laws, customs regulations, and cultural/ political/ business environment of the host One of our objectives is to help various State Governments by emphasizing the areas of business regulation that need attention; underlining a few unproductive, redundant, wasteful processes & laws already prevalent in the system and suggesting possible alteration in Laws & Processes for the progression and nurturing of the business-friendly env**country.icy maFII is equipped to advise on multiple investment location options for a business project like**,

- special economic zones, country specific zones, industrial estates, etc. We are also enabling investors to overcome deferrals in getting licenses, company incorporation, land acquisition, The Global investors are watching India with a great interest after the launch of “Make in India” initiative by the Indian Prime Minister, Shri Narendra Modi. At FII, we advise and extend our assistance to ensure a smooth sailing for the Government /Companies across the globe to make investment and set up factories and expand their facilities in India.**and other necessary procedures & approvals.kers, and the International business fraternity.**

- Thank you

Weber's Theory of Location of Industries

- **this theory is based on the ‘least cost principle’ which is used to account for location of a manufacturing industry. The theory is based upon a single, isolated country with homogeneous conditions. Some of the natural resources in this setting are found everywhere, while some have fixed locations**

- **The workforce has fixed locations. Transportation costs, in this situation, are a function of cargo weight and the distance. Demand is uniform throughout for all products, hence, there is uniform price for all products at all locations. The theory claims that the costs will get influenced by transportation costs, labour costs and by the agglomeration factor.**

- **Role of Transportation Costs:**
- 1. A one market, one raw material condition gives rise to three situations.
- **i) Raw Material Available Everywhere:**
- The best location in this situation is the market, as that will simply eliminate the transportation costs for the manufacturing unit.

The best location will be at source.

- **(ii) Raw Material Fixed, And Pure:**
- The manufacturing unit, in this case, should be located either at the market or at the source.
- **(iii) Raw Material Fixed And Gross (I.E. It Loses Weight On Processing** The best location will be at source.

- 2. A one market, two raw materials (R_1, R_2) condition gives rise to four situations.
- (i) Both R_1 and R_2 are found everywhere: here, the best location will be at the market, as in that case, lowest transportation costs would prevail.

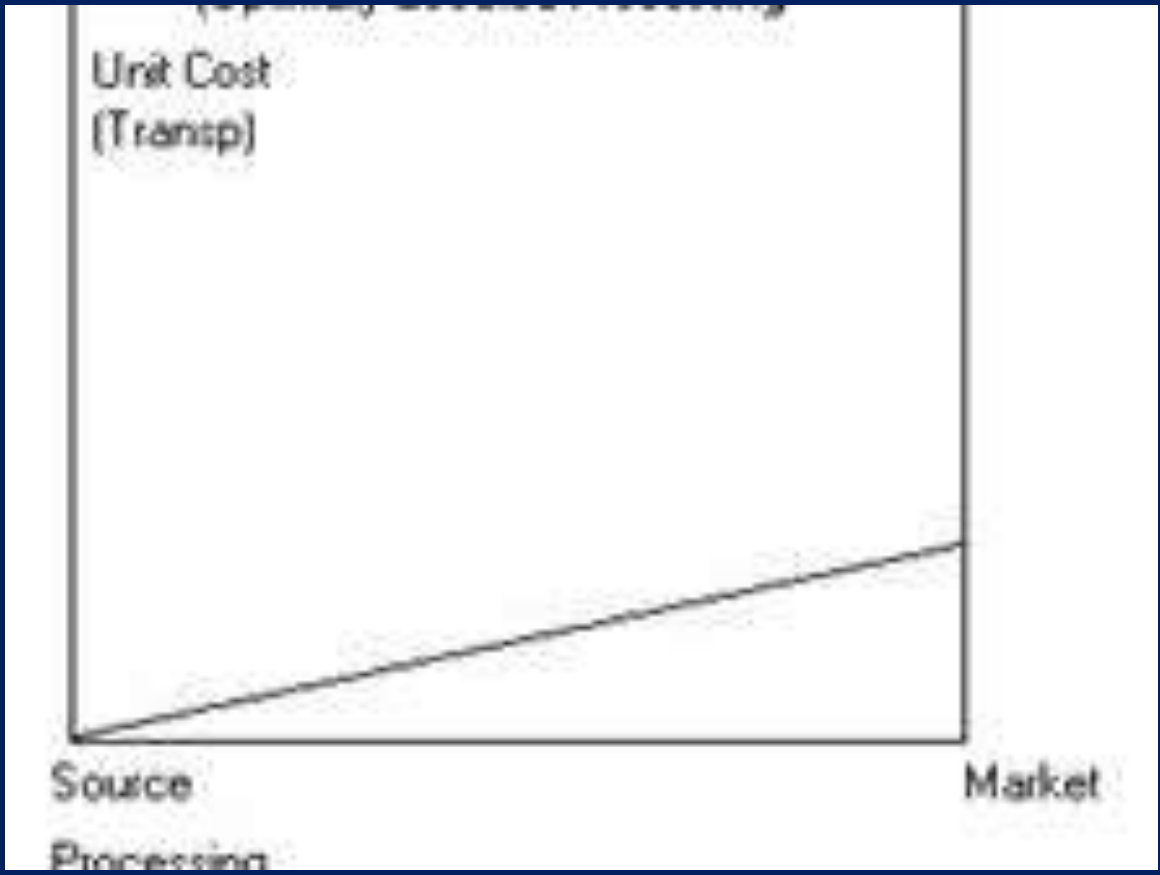
- (ii) R_1 is fixed, R_2 is found everywhere, both are pure: the best location would be at the market, because then, transportation charges for R_1 only will have to be paid.
- (iii) Both R_1 and R_2 are fixed and pure: the best location will be at the market, because in that case lowest aggregate transportation charges will prevail.

– (iv) Both R_1 and R_2 are fixed and gross: this is a complex situation, for which Weber introduced the "locational triangle". Two raw materials—R, and R_2—and market (M) form

- the three modes of this triangle. The transportation charges are a product of the cargo weight and the distance carried by transportation. Thus, a pull is being exerted on the location by each of these three modes. It is seen that the weight-losing manufacturing processes like iron smelting tend to be located near the source of raw materials, while the weight-gaining ones like baking tend to be located near the market (Fig. 10.25).

- Role of Labour Costs To determine the role of locational pattern of labour force on manufacturing location, Weber's locational triangle is placed in concentric pattern of rising transportation costs outwards from the centre (Fig. 10.25). It is assumed that the labour force is dispersed outwards and the distance from the centre represents savings on account of labour costs decrease and a point (L) comes where the savings on labour cost overcome the handicap of rising

- transportation costs. This is a more profitable location than ‘F which is the lowest transportation cost location.
- **Role of Agglomeration:**
- The coming together or agglomeration of industries offers cuts in production costs if two or more industries operate in the same location (Fig. 10.25).


Unit Cost
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Source
Market
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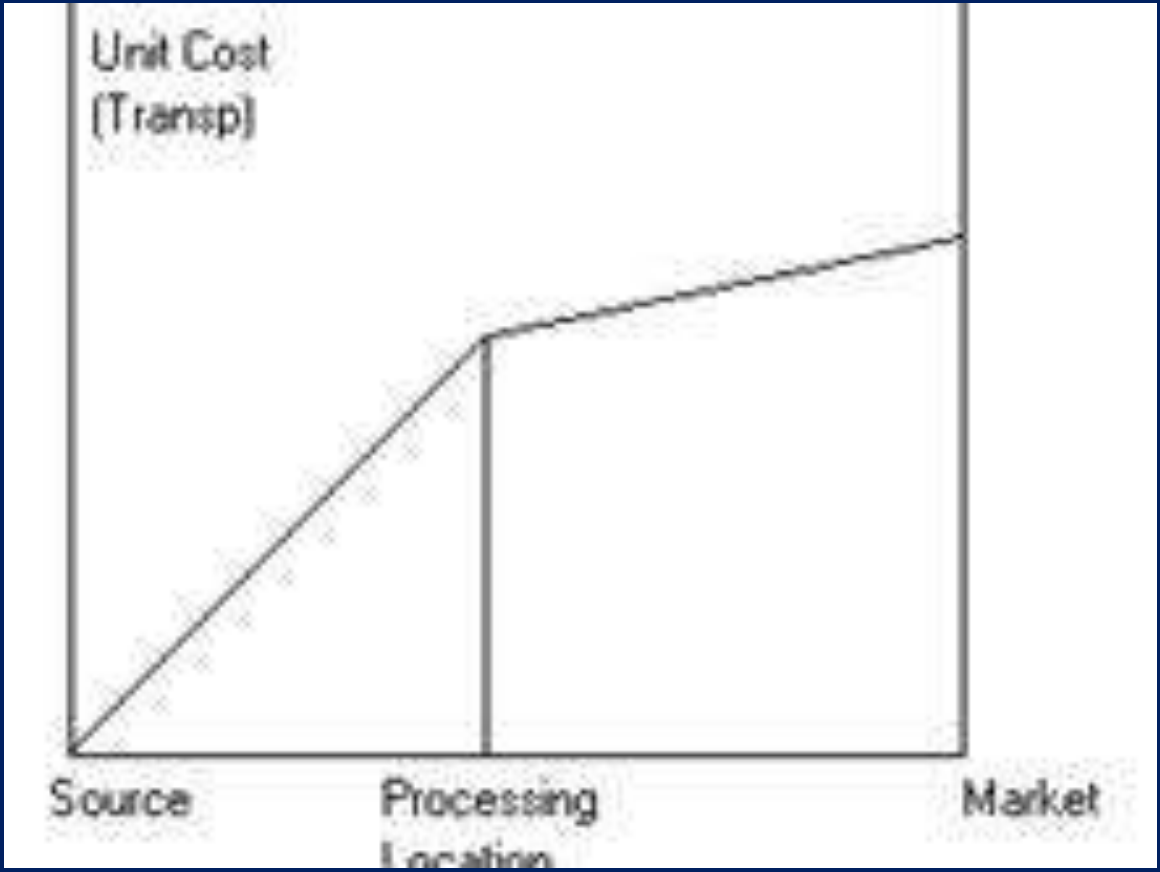
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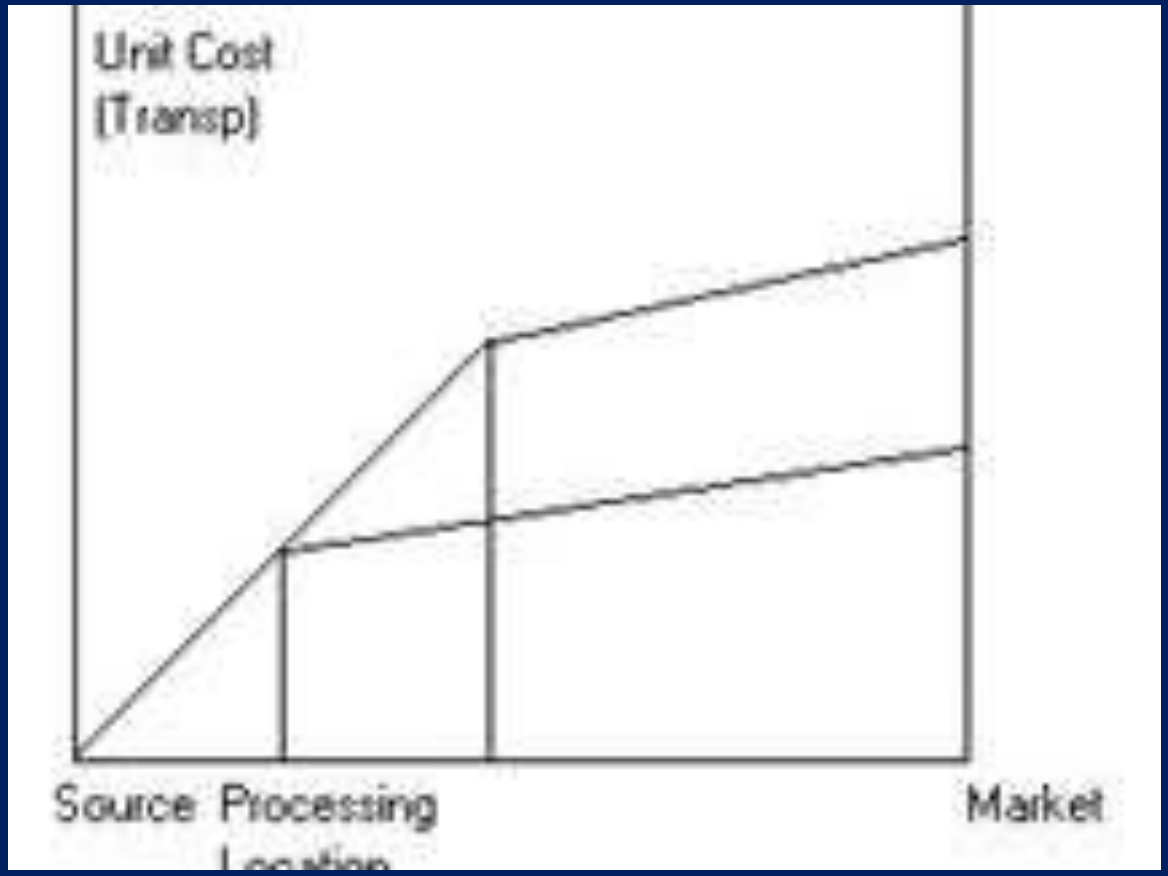
Unit Cost
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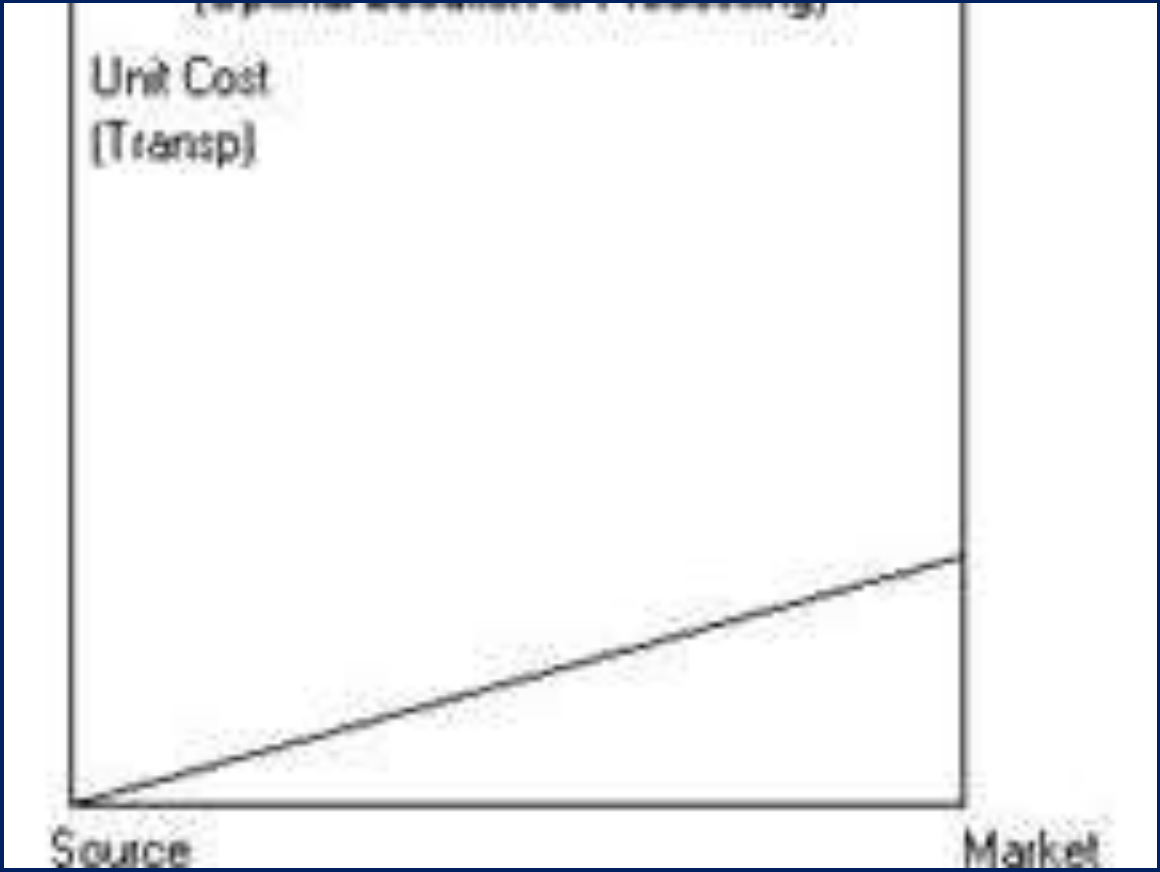
Market

- Figure 1 shows the situation in which the processing plant is located somewhere between the source and the market. The increase in transport cost to the left of the processing plant is the cost of transporting the raw material from its source. The rise in the transportation cost to the right of the processing plant is the cost of transporting the final product. Note the line on the left of the processing plant has a steeper slope than the one on the right

- Figure 2 shows the situation if the processing plant is moved closer to the source of raw material. Note that the transport cost of the final product delivered to the market is lower than in the previous location. The transportation cost for the product delivered to the market will be lowest of all if the processing plant is located at the source of the raw material, as shown in Figure 3.


Unit Cost
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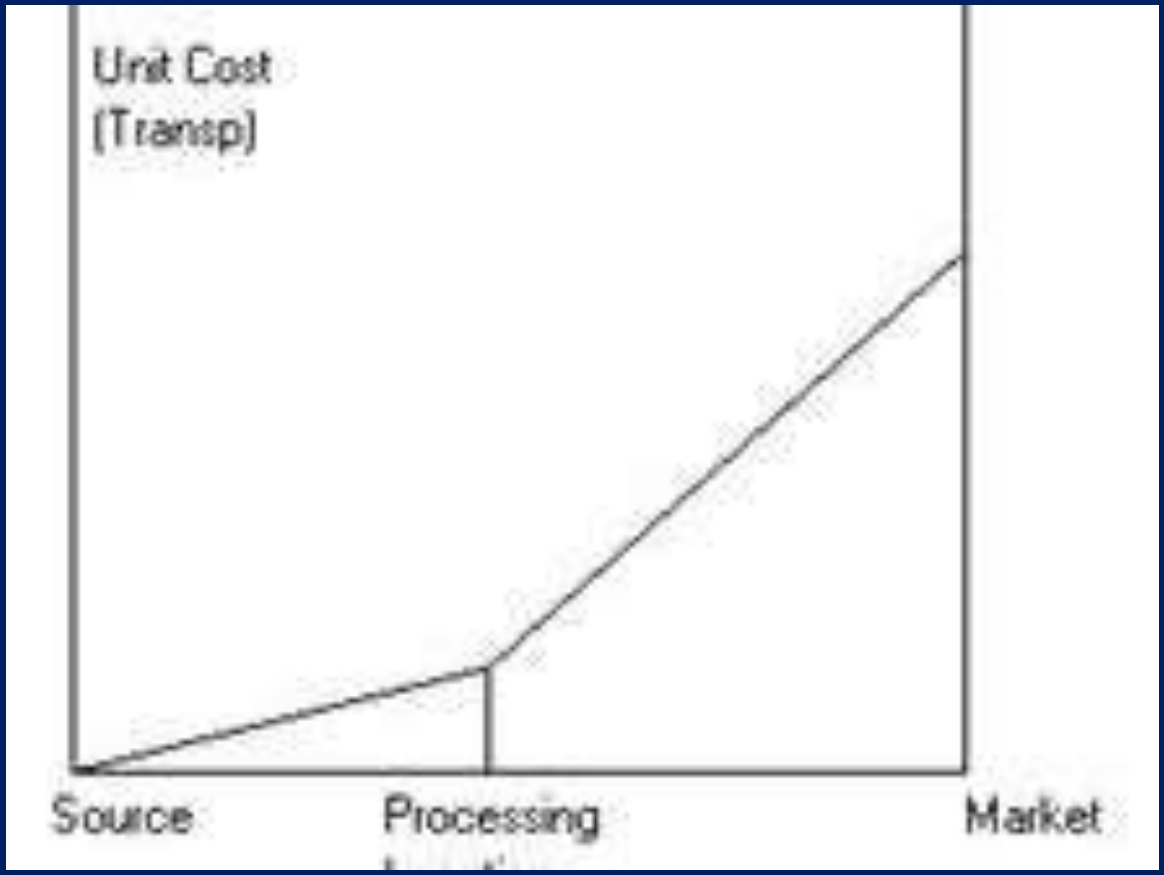
Unit Cost
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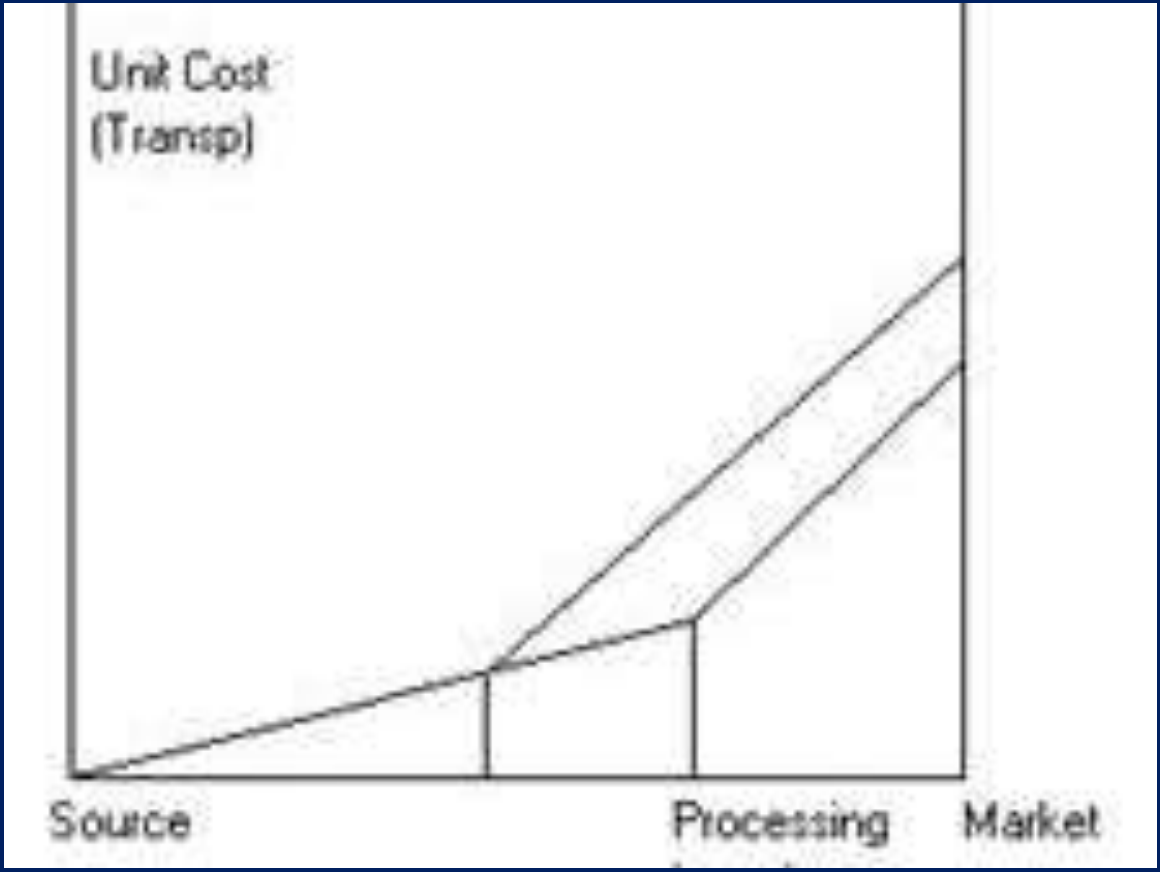
Unit Cost
(Transp)
Source
Processing
Market

- **The weight gaining case is illustrated in Figures 4, 5 and 6. The optimal location of the processing plant in this case is at the market. Weber established that firms producing goods less bulky than the raw materials used in their production would settle near to the raw-material source. Firms producing heavier goods would settle near their market. The firm minimizes the weight it has to transport and, thus, its transport costs.**

- *Thank you*