CHAPTER-I
INTRODUCTION

A) Industrial Development in India

1.0. Post-Independence Period

Industries are the growth engine of every country. The Indian government began a herculean effort to develop the Indian industry in the post independence period. The government wanted to achieve self-sufficiency. During the last three decades of planned development industrial production has made rapid strides both in terms of variety and quality. The production increased at an average growth rate of about 5 per cent per annum during 1970-1983. While almost all groups of industries contributed to this increase, the growth has been particularly marked in areas, such as, petroleum products, chemicals and chemical products, metal products, electronics and other electrical machinery, transport equipment and power generation; The share of manufacturing sector in the net domestic product at constant prices increased from 13.4 per cent in 1970-71 to 15 per cent in 1982-83.

The plan period saw the expansion and diversification of the industrial structure with the establishment of new units in the existing fields as well as the setting up of new enterprises. As a result, the number of industrial units has increased significantly. In 1951, there were only two major units producing iron and steel. There are now six major steel plants with a capacity of about 87 lakh tonnes. They produced about 73 lac tonnes of saleable steel during 1982-83. The steel produced by these plants has provided the basis for achieving the self-sufficiency in making a number of engineering goods from pin to giant machinery. In the field of new industries, agricultural tractors, electronics and fertilizer industries, which practically did not exist in 1951, have progressed to such an extent that the import of these products has been brought down to the minimum. The drug and chemical industries have also made rapid progress. The textile industry is no longer confined to the cotton and jute textiles. Today, there are quite a few units producing different types of synthetic fibers. The machine building industry, too, has made rapid strides. The engineering industry can supply virtually the entire requirement of power generating equipment, equipment for railways, road transport and communications. Self-sufficiency has been reached with regard to sugar and cement machinery, power boilers, material handling equipment and a large number of consumer durables.
An important feature of industrial growth in the country after Independence has been the rapid expansion of the public sector. In 1951, there were only five non-departmental public "Undertakings, with an investment of ₹. 29 crore. On 1st April 1983, they numbered 209 with an investment of ₹. 30,033 crore. These enterprises produce diverse products such as steel, coal, aluminum, copper, heavy and light engineering products, fertilizers, basic chemicals, drugs, minerals, petroleum products, locomotives, aircraft and ships.

While proposing major changes in licensing policy, the prominent place of the public sector in eight core areas will be continued. These include arms and ammunition, atomic energy, mineral oils, rail transport and mining of coal and minerals. The exemption from licensing will be particularly helpful to the many dynamic, small and medium entrepreneurs who have been unnecessarily hampered by the licensing system. As a whole, the Indian economy will benefit by becoming more competitive, more efficient and modern.

Table No.1.0 Growth of Industrial Production under Plans

<table>
<thead>
<tr>
<th>Period</th>
<th>Annual growth rate(Percentage)</th>
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<tbody>
<tr>
<td>I Plan</td>
<td>7.3</td>
</tr>
<tr>
<td>II Plan</td>
<td>6.6</td>
</tr>
<tr>
<td>III Plan</td>
<td>9.0</td>
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<tr>
<td>Annual Plans</td>
<td>2.0</td>
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<tr>
<td>IV Plan</td>
<td>4.7</td>
</tr>
<tr>
<td>V Plan</td>
<td>5.9</td>
</tr>
<tr>
<td>VI Plan</td>
<td>5.5</td>
</tr>
<tr>
<td>VII Plan</td>
<td>8.5</td>
</tr>
<tr>
<td>VIII Plan</td>
<td>7.8</td>
</tr>
<tr>
<td>IX Plan</td>
<td>4.5</td>
</tr>
<tr>
<td>X Plan</td>
<td>8.0</td>
</tr>
<tr>
<td>XI Plan Target (Per Annum)</td>
<td>9.0</td>
</tr>
</tbody>
</table>


Though the increase in industrial production has fallen short of the targets, the growth rate is not insignificant. The rate of growth of industrial output has been much higher than the rates of increase in agriculture (2.7 per cent) and the national income
(3.5). When the industrial sector has received a large share of the total plan outlays, the growth rate of this sector should, of course, be expected to be significant.

1.1 Post-Independence Industrial Policy in India

Soon after Independence, India had to grapple with various issues in framing a suitable industrial policy for the country. These were the following:

1. Policy of the government towards foreign participation in industrial initiatives.
2. Determination of the relative roles of public and private sectors.
3. Relative emphasis on consumer goods and capital goods industries.
4. Role of large vis-a-vis small-scale industries.
5. Location of industries: economic versus social criteria.
6. Concentrated versus broad-based entrepreneurship.
7. Licensing policy, procedures, rules and regulations to control industrial activities.

1.2 Major Industrial Policies in India.

a) Industrial Policy Resolution, 1948
b) Industrial Policy Resolution, 1956
c) Industrial Policy Statements 1977
d) Industrial Policy Statement of 1980

1.3. Industrial Policy of 1991

The Government of India came out with a series of sweeping changes in the form of the New Industrial Policy which was announced on July 24, 1991. The New Industrial Policy (NIP) has initiated far-reaching structural reforms to unfetter the Indian industries from a regulatory and protective regime and to lead them to a free market-oriented, competitive and globalised environment. The new industrial policy seeks “to radically liberalize Indian industry and to unshackle it from my raid administrative and legal controls.”

Objectives of the New Industrial Policy

The new industrial policy is designed to achieve the following objectives.

(i) To consolidate the gains and strengths achieved during the last four decades of economic planning.
(ii) To correct the distortions or weaknesses that might have crept in during the last four decades.

(iii) To maintain a sustained growth in productivity.

(iv) To promote gainful employment.

(v) To pursue a sound policy framework encompassing encouragement of entrepreneurship.

(vi) To upgrade technology and attain international competitiveness.

(vii) To ensure the efficient use of available resources.

(viii) To unshackle the Indian industry from the various cobwebs of unnecessary bureaucratic controls.

(ix) To integrate the Indian economy with the world economy.

(x) To reform the public sector and throw open more industries to private sector.

(xi) To encourage foreign entrepreneurs to make significant contributions in the fields of investments, trade and technology.

(xii) To free domestic entrepreneurs from the shackles of MRTP Act.

**Silent Features of the New Industrial Policy**

The Congress Government led by Mr. Narasimha Rao announced the new industrial policy in July 1991. The main aim of the new industrial policy was:-(a) To unshackle the Indian industrial economy from the cobwebs of unnecessary bureaucratic control, (b) To introduce liberalization with a view to integrate the Indian economy with the world economy, (c) To remove restrictions on direct foreign investment as also to free the domestic entrepreneur from the restrictions of MRTP Act, and, (d) The policy aimed to shed the load of the public enterprises which have shown a very low rate of return or were incurring losses over the years. All these reforms of industrial policy led the government to take a series of initiatives in respect of policies in the following areas:

a. Industrial licensing;
b. Foreign investment;
c. Foreign technology policy;
d. Public sector policy; and
e. MRTP Act.
A) Industrial Licensing Policy

(A) Industrial Licensing to be abolished for all projects except for a short list of industries related to security and strategic concerns, social reasons, hazardous chemicals and overriding environmental reasons and items of elitist consumption. Industries reserved for the small scale sector will continue to be so reserved.

B) List of Industries in Respect of which Industrial Licensing will be Compulsory

1. Coal and Lignite.
2. Petroleum (other than crude) and its distillation products.
3. Distillation and brewing of alcoholic drinks.
4. Sugar.
5. Animal fats and oils.
6. Cigars and cigarettes of tobacco and manufactured tobacco substitutes.
8. Plywood, decorative veneers, and other wood based products such as particle board, medium density fiber board, block board.
9. Raw hides and skins, leather, chamois leather and patent leather.
10. Tanned or dressed fur skins.
11. Motor cars.
12. Paper and Newsprint except bagasse-based units.
13. Electronic aerospace and defense equipment; all types.
14. Industrial explosives, including detonating fuse safety fuse, gun powder, nitrocellulose and matches.
15. Hazardous chemicals.
16. Drugs and Pharmaceuticals (according to Drug Policy).
17. Entertainment Electronics (VCRs, Color TVs, C.D. Players, Tape Recorders).
18. White goods (Domestic Refrigerators, Domestic Dish Washing Machines, Programmable Domestic Washing Machines, Microwave ovens, Air conditioners). The compulsory licensing provisions would not apply in respect of the small-scale units taking up the manufacture of any of the above items reserved for exclusive manufacture in small scale sector.

(B) Areas where security and strategic concerns predominate will continue to be reserved for the public sector.

C) List of Industries to be reserved for the Public Sector

1. Arms and ammunition and allied items of defense equipments.
2. Defense aircraft and warships.
3. Atomic Energy.
4. Coal and lignite.
6. Mining of iron ore, manganese ore, chrome ore, gypsum, sulphur, gold and diamond.
7. Mining of copper, lead, zinc, tin, molybdenum and wolfram.
8. Minerals

(C) In projects where imported capital goods are required, automatic clearance will be given in cases where foreign exchange availability is ensured through foreign equity; or if the CIF value of imported capital goods required is less than 25% of total value (net of taxes) of plant and equipment, up to a maximum value of ₹ 2 crore. In other cases, imports of capital goods will require clearance from the Secretariat of Industrial Approvals (SIA) in the Department of Industrial Development according to availability of foreign exchange resources.

(D) In locations other than cities of more than 1 million populations, there will be no requirement of obtaining industrial approvals from the Central Government except for industries subject to compulsory licensing. In respect of cities with population greater than 1 million, industries other than those of a non-polluting nature such as electronics, computer software and printing will be located outside 25 kms of the periphery, except in prior designated industrial areas. Existing units would be provided a new broad banding facility to enable them to produce any article without additional investment. The exemption from licensing would apply to all substantial expansions of existing units.

D) Foreign Investment

In order to invite foreign investment in high priority industries, requiring large investments and advanced technology, it was decided to provide approval for direct foreign investment up to 51 per cent foreign equity in such industries. For the promotion of exports of Indian products in world markets, the government would encourage foreign trading companies to assist Indian exporters in export activities.

(i) Approval would be given for direct foreign investment up to 51 per cent foreign equity in high priority industries. There shall be no bottlenecks of any kind in this process. Such clearance will be available if foreign equity covers the foreign exchange requirement for imported capital goods.

(ii) While the import of components, raw materials and intermediate goods, and payment of know how fees and royalties would be governed by the general policy applicable to other domestic units, the payment of dividends would be monitored through the Reserve Bank of India so as to ensure that outflows on
account of dividend payments are balanced by export earnings over a period of time.

(iii) To provide access to international markets, majority foreign equity holding up to 51% equity would be allowed for trading companies primarily engaged in export activities.

E) **Foreign Technology**

With a view to injecting the desired level of technological dynamism in Indian industry, government would provide automatic approval for technology agreements related to high priority industries within specified parameters. No permission will be necessary for hiring of foreign technicians, foreign testing of indigenously developed technologies.

F) **Public Sector Policy**

Public enterprises have shown a very low rate of return on the capital invested. This has inhibited their ability to regenerate themselves in terms of new investments as well as in technology development. The result is that many of the public enterprises have become a burden rather than being an asset to the Government. The original concept of the public sector has also undergone considerable dilution. The most striking example is the take-over of sick units from the private sector. This category of public sector units accounts for almost one-third of the total losses of Central public enterprises. Another category of public enterprises, which does not fit into the original idea of the public sector being at the commanding heights of the economy, is the plethora of public enterprises which are in the consumer goods and service sectors. The 1991 Industrial Policy adopted a new approach to public enterprises. The priority areas for growth of public enterprises in the future would be the following:

(a) Essential infrastructure goods and services.

(b) Exploration and exploitation of oil and mineral resources.

(c) Technology development and building of manufacturing capabilities in areas which are crucial in the long term development of the economy and where private sector investment is inadequate.

(d) Manufacture of products where strategic considerations predominate such as defense equipment.
Government would strengthen those public enterprises which fall in the reserved areas of operation or are in high priority areas or are generating good or reasonable profits. Such enterprises will be provided a much greater degree of management autonomy through the system of memoranda of understanding. Competition will also be induced in these areas by inviting private sector participation. In the case of selected enterprises, part of Government holdings in the equity share capital of these enterprises will be disinvested in order to provide further market discipline to the performance of public enterprises.

G) MRTP Act

With the growing complexity of industrial structure and the need for achieving economies of scale for, ensuring higher productivity and competitive advantage in the international market, the interference of the Government through the MRTP Act has to be restricted. Towards the end:
(i) The pre-entry scrutiny of investment decisions by so-called MRTP companies will no longer be required. Instead, emphasis will be on controlling and regulating monopolistic, restrictive and unfair trade practices rather than making it necessary for the monopoly houses to obtain prior approval of Central Government for expansion, establishment of new undertakings, merger, amalgamation and takeover and appointment of certain directors. (ii) The thrust of policy will be more on controlling unfair or restrictive business practices.

H) Further Liberalization by de-reservation

The Government decided in April 1993 removes three more items from the list of 18 industries reserved for compulsory licensing. These three items were: motor cars, white goods (which include refrigerators, washing machines, air conditioners, etc.) and raw hides and skins and patent leather. The basic purpose for de-reservation of these items was to increase the flow of investment in these industries. With the growth of a large middle class, ranging between 100 to 150 million, the demand for white goods like washing machines, refrigerators, air conditioners etc. is growing and these items are no longer viewed as luxury goods. Similarly, the demand for motor cars by the upper middle class and the affluent sections is also growing, more especially when the Government is providing loans to business executives and other senior officials to buy cars. To provide a boost to the motor car and white goods industries, the Government decided to de-reserve these items so that their production
improves as a response to the market, instead of remaining shackled by the bureaucratic process of licensing.

Regarding raw hides and skins and patent leather, the Government was motivated by the desire to push up exports. Leather and good quality shoes have a tremendous export potential and the small scale units are ill equipped to provide quality goods for the international market.

In pursuance of the liberalization policy towards foreign investment, the Government decided in December 1996 to include 16 categories of industries in respect of which automatic approval would be accorded to foreign equity participation up to 51 per cent. This additional list of industries eligible for automatic approval up to 51 per cent foreign equity covers a wide range of industrial activities in the capital goods and metallurgical industries, entertainment electronics, food processing industries, mining (up to 50 per cent), and those having significant export potential.

The government, however, also added another list of nine industries for which automatic approval up to 74 per cent would be allowed. The nine industries are mining services related to oil and gas fields services, basic metals and alloy industries, non-conventional energy sources, manufacture of navigational, meteorological, geophysical and related instruments and apparatus, electric generation and transmission, construction and maintenance of roads, ropeways, ports, harbors, construction and maintenance of power plants. Besides, land transport, water transport and storage and warehousing services have also been included. The main aim of the major policy initiative is to facilitate foreign direct investment in infrastructure sector, core and priority sectors, export-oriented industries, linkage with agro and farm sectors.


The Industrial Policy announced by the Government of India in July 1991 fulfilled a long-felt demand of the corporate sector for declaring in very clear terms that licensing was abolished for all industries except 18 industries. Besides this, the industrial policy proposed to remove the limit of assets fixed for MRTP Companies and dominant undertakings. Thus, business houses intending to float new companies or undertake substantial expansion were not required to seek clearance from the MRTP Commission. Numerous cases of bottlenecks created by the bureaucracy were struck down by this singular decision of the Government. In this sense, the industrial
policy was welcome because it took the bold decision to end the license-permit raj and save the entrepreneurs from the clutches of the bureaucracy of the country to start an undertaking. This step enabled MRTP Companies to establish new undertakings, and effect plans of expansion, mergers, amalgamations and takeovers without prior government approval. In other words, the new industrial policy unshackled many of the provisions which acted as brakes on the growth of the large private corporate sector. All these provisions were welcomed by the business circles. There was thus an overall relief in the dismantling of industrial licensing and regime of controls. However, several aspects of the industrial policy had come in for sharp criticism.

(a) Policy Regarding Foreign Capital.

The industrial policy goes all out to woo foreign capital. It has been decided to provide approval for direct foreign investment up to 51% foreign equity in high priority industries. The Government had further clarified that it would permit 100% foreign equity in case the entire output was exported.

Dr. Manmohan Singh, the then Finance Minister, and architect of the new policy, asserted that India should not be unnecessarily afraid of foreign capital inflow as an attack on Indian sovereignty. Actually India had very little foreign investment amounting to $425 million in 1989, while small countries like Indonesia ($735 million), Argentina ($1,028 million), Thailand ($1,650 million), Malaysia ($1,846 million) and Mexico ($2,241 million) had a much bigger quantum of foreign investment. Even China had foreign investment of the order of $1,400 million.

Critics base their judgment on past experience. Once foreign capital is permitted free entry, the distinction between high priority and low priority industries would gradually disappear over time and all lines of production would be opened to facilitate foreign investment. Experience of permitting Pepsi Cola is too recent to show that the Government sanctioned it in the least priority area.

(b) Public Sector Policy.

The industrial policy (1991) noted that public sector enterprises had shown a very low rate of return on capital invested. That was many of the public sector enterprises had become a burden rather than an asset to the Government. It may be noted that enterprises accounting for a negative rate of return during 1989-90 were mostly in the consumer goods, textiles, contract and construction services and technical consultancy. All these accounted for a total capital investment of ₹. 2,780
crores or about 3 per cent of total investment in the Central public sector. Those which accounted for a rate of return ranging between zero to 8 per cent accounted for an investment of ₹ 9,990 crores or 12 per cent of total investment.

(c) Social Security Policy.

The real question which the Government has evaded is: What is the social security mechanism that the Government intended to create to mitigate the hardship of workers who were likely to be retrenched? The Industrial Policy statement only intended to refer these cases to the Board for Industrial and Financial Reconstruction (BIFR). In this regard, the Industrial Policy sidetracked issues and had generated a fear in the mind of the workers that the Government was not sincere in protecting the interests of the worker to health. The Government should provide financial and technical assistance. This would reduce trade union resistance to privatization.

(d) MRTP Policy.

Lastly, the Government restricted the work of MRTP Commission to controlling and regulating monopolistic, restrictive and unfair trade practices. MRTP Commission was also authorized to initiate investigations *suo moto* or on complaints received from individual consumers or classes of consumers in regard to monopolistic, restrictive and unfair trade practices. MRTP Commission has actually failed in this respect and was not able to break the monopolistic or oligopolistic character of the Indian market. The very fact that despite privatization, cement or paper prices have skyrocketed and all talk of competition has been countered by combined action of manufacturers organizations, is ample proof of the fact that competition is only being used as a slogan for privatization, but in reality, competition is being systematically eliminated by big business.

In conclusion, it may be stated that the new Industrial Policy may be able to attract foreign investment and give a boost to domestic investment, but whether it will lead to more employment along with higher output growth is doubtful. Besides, excessive freedom to foreign capital may ultimately affect our economic sovereignty and as also push the country into a debt trap further. These are gloomy forebodings, but the recent East Asian economic crisis as well as the happenings in Russia and South American countries point out to the dangers of too much dependence on market mechanism, uncontrolled liberalization and globalization and unfettered freedom to import foreign capital.
1.4. Liberalization

Liberalization means deregulation and delicensing of industry, relaxing entry barriers and removing restrictions on capacity expansion. In India, the tilt towards liberalization started in 1985 when Government announced a series of measures aimed at deregulation and liberalization of industry. These measures, described as New Economic Policy, coincided with the policy framework of the Seventh Five Year Plan (1985-90). These were followed by drastic changes introduced in the 1991 industrial policy of the Government.

Economic reforms were set in motion, though on a modest scale, in 1985, at least for the industrial sector. After assuming power at the Centre, the Government of Prime Minister Rajiv Gandhi introduced a series of measures, through its 1985 industrial policy, to reduce control on industries, particularly large industries. These measures included:

1. Delicensing of non-MRTP and non-FERA companies for 31 industry groups and MRTP/FERA companies in centrally-declared backward areas for 72 industry groups.
2. Broad-banding of certain industries, e.g. machine tools.
3. The threshold (minimum) asset limit for companies under MRTP Act was raised from ₹ 20 crore to ₹ 100 crore. As a consequence, 112 companies were freed from the purview of the MRTP Act leaving 379 under the same Act.
4. Investment limit in small-scale industries was drastically revised upward from Rs.20 lac to Rs.35 lac.

1.5. Meaning and Definition of Liberalization

The literal meaning of the word economic liberalization is “economic freedom” or “freedom for economic decision.” It means producers; consumers and owners of factors of production all are free to take their decisions to promote their self-interest. In this sense the concept of economic liberalization is as old as the classical economics. The Classical Economists advocated the economic liberalization as the best economic policy to promote economic growth and well being of the people. In order to understand the meaning of the concept of economic liberalization, following definitions are useful.
1. **According to Classical Economists:** “The economic policy which leads to reduction if not removal, of barriers in the working of market mechanism and free competition are called economic liberalization.

2. **Dr. M. Ramanjaneyulu:** “Economic liberalization means scrapping of the undesirable restrictions, controls and licensing over investment imports and production.”

3. **Dr. V. N. Atri:** “Economic liberalization means more extensive use of the price mechanism that would reduce the anti-export bias of the trade regime. The distortions in the economy should be minimized, if not fully abolished, in order to increase efficiency and competition in the economy.”

1.6. **Pressure for Industrial Liberalization**

**A) Internal Factors:** The following internal factors, *inter alia*, underlined the urgency for economic reforms.

1. During the first three decades of economic planning (1950-80), Indian economy grew at a modest rate of 3.5 per cent per annum. During the same period, the population grew at an average rate of about 2 per cent per annum. Thus, the rate of growth in terms of per capita income was around 1.5 per cent per annum. The late Professor Raj Krishna called it the Hindu rate of growth.

2. Economic policies of the first three decades of planning led to inferior quality of domestic production with high cost as compared to world prices.

3. Mounting losses of public sector enterprises were causing great concern to the Government. These losses were upsetting fiscal balance of the Government, both at the Central and State levels.

**B) External Factors:** Major external factors pressurizing for reforms included the following:

1. Economic reforms in India may partly be explained as a fall out of the collapse of Soviet Union which initially inspired Indian leaders in favor of economic planning and public sector.

2. Another external factor which forced rethinking on development strategy was the experience of China which had initiated the reforms in 1979 and was showing encouraging results.

3. The Gulf Crisis dealt a severe blow to India's foreign exchange reserves.

4. Significant changes were taking place in the world trade regime.
Nevertheless, fiscal and external sector compulsions reflected in the crisis of 1991 constituted the immediate cause of India’s economic reforms.

1.7. Effects of Liberalization on Industry

The important component of the New Economic Policy (1991) is, the liberalization created more free and competitive environment in the industrial sector of the Indian economy. The liberalization contains various steps such as delicensing, and decontrolling of the industries. The reduction in the number of industries reserved for public sector. Disinvestment of equity capital of selected public enterprises, opening up of Indian economy for foreign investors, reduction in rates of customs duty and excise duty, etc. All these measures led to the liberalized and free economy.

It is, therefore necessary to analyze performance of the industrial sector during the post-liberalized period. The performance of the industrial sector during post-liberalized period determines the degree of success of the liberalization policy.

<table>
<thead>
<tr>
<th>Year</th>
<th>Index of Industrial Production (% change per annum)</th>
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<tbody>
<tr>
<td>1991-92</td>
<td>0.6</td>
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<tr>
<td>1992-93</td>
<td>2.3</td>
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<tr>
<td>1993-94</td>
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<td>1995-96</td>
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<td>1996-97</td>
<td>6.1</td>
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<td>6.7</td>
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<td>2002-03</td>
<td>5.7</td>
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<tr>
<td>2003-04</td>
<td>7.0</td>
</tr>
<tr>
<td>2004-05</td>
<td>7.5</td>
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</tbody>
</table>

Source: Tata Services Ltd., ‘Statistical Outline of India (2005)’

The average rate of industrial growth, during the post-liberalization period (i.e. 1991-92 to 2004-05) works out to be 5.8% per annum. During the pre-liberalization period (i.e. 1981-82 to 1990-91), the average rate of industrial growth was 8.3% per annum. Comparison between these two periods shows that the rate of industrial growth has been low during the post-liberalization period. It was expected that the new economic reform would stimulate private investment and thus put the Indian
industry on to a whole new growth trajectory. The actual performance of Indian industry shows that the expectations of advocates of economic reforms have proved wrong.

During the 1990s we get two divergent trends in industrial performance. A rising trend was observed in the first half of the 1990s, followed by the period of industrial slowdown in the second half of the 1990s and early years of the new century with industrial growth rate touching a low of 2.7% in 2001-02. The industrial growth rate has recovered since 2002-03 and is likely to stay at 7.5% in 2004-05. The slowdown registered in industrial growth after 1997-98 was perhaps due to low demand resulting from fall in public investment and indifferent agricultural performance.

In short, the liberalization process has failed to make any positive impact on the industrial performance. After the ‘mini boom’ of early 1990s, industrial sector entered the phase of recession. There are, however, some signs of recovery in the recent past. This clearly shows that economic liberalization aimed at removing policy induced restrictions have been far from successful in improving industrial performance.

Table No 1.2 Changes in the Scenario, Before and After Economic Liberalization

<table>
<thead>
<tr>
<th>Before Liberalization</th>
<th>After Liberalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>State-sponsored and state-mediated development</td>
<td>Market led and private enterprise dominated</td>
</tr>
<tr>
<td>Protected domestic market</td>
<td>Competitive market</td>
</tr>
<tr>
<td>Budgetary and directed institutional resource allocation</td>
<td>Competitive capital market-led resource allocation</td>
</tr>
<tr>
<td>Subsidies and administered price regime</td>
<td>Rational pricing, including user charges</td>
</tr>
<tr>
<td>Welfare state active in labour market</td>
<td>Labour-neutral and investment-friendly state policies</td>
</tr>
<tr>
<td>Systematic de-casualization of jobs</td>
<td>Fast re-casualization and contractualization of jobs</td>
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<tr>
<td>Largely government-funded social security and welfare programmes for a few</td>
<td>Crisis of sustainability of social security welfare programmes and pressure for security welfare programmes and pressure for security measures for alls</td>
</tr>
<tr>
<td>Stable governing structure and policy regime</td>
<td>Crisis of governance and fear of political and economic instability</td>
</tr>
<tr>
<td>Stable, though obsolete, labor-intensive technologies</td>
<td>Micro-electronics-led new-generation capital and skill-intensive technologies</td>
</tr>
</tbody>
</table>
1.8. Economic Reforms - A Brief Review

A) Economic Reforms under Rajiv Gandhi Regime (1985-90)

Soon after taking over as Prime Minister in 1985, Mr. Rajiv Gandhi outlined the new trends in economic policy of the Government. The recipe suggested by him was: Improvement in productivity, absorption of modern technology and fuller utilization of capacity must acquire the status of a national campaign. The basic thrust of the New Economic Policy was a greater role for the private sector.

To provide larger scope to the private sector, a number of changes in policy were introduced with regard to industrial licensing, export-import policy, technology upgradation, fiscal policy, foreign equity capital, removal of controls and restrictions, rationalizing and simplifying the system of fiscal and administrative regulation. All these changes were directed towards creating an uninhibited climate for private sector so that private sector investment could get a big boost to modernize the economy and usher in rapid growth. Professor K. N. Raj rightly sums up the focus of new economic policy: There has been however a general agreement that a very distinctive feature of these policy changes taken as a whole is the greater scope for unfettered expansion they offer to the private sector, particularly in the corporate segment of manufacturing industry and the opportunities opened up to multi-national enterprises."

Consequently, the New Economic Policy focused its attention on dismantling the edifice of controls so as to remove unnecessary hurdles in securing licenses, in adjusting output to administered prices and in denying industrial licensing to MRTP Companies. The Government initiated a number of measures in this regard.

B) Economic Reforms under P.V. Narasimha Rao Government - The Second Wave

Although economic reforms were introduced under Rajiv Gandhi regime, they did not yield the desired result, the balance of trade deficit, instead of narrowing down, increased. Whereas the average deficit in trade balance during the Sixth Plan (1980-85) was ₹ 5,930 crores. It jumped to ₹ 10,840 crores during the Seventh Plan (1985-90). There was also decline in the receipts on invisible account, from ₹ 19,070 crore during the Sixth Plan to Rs, 15,890 crore during the Seventh Plan. Consequently, the country was faced with a serious balance of payments crisis. Thus, India was forced to approach the World Bank and the IMF to provide a huge loan of the order of about $ 7 billion to bail India out of the crisis. While agreeing to provide
assistance to India, the World Bank-IMF insisted that the Government must put its economy back on rails.

The Congress Government, soon after resumption of office on June 21, 1991, adopted a number of stabilization measures that were designed to restore internal and external confidence. In his Memorandum on Economic policies submitted to IMF, Dr. Manmohan Singh, the then Finance Minister proposed: "The thrust will be to increase the efficiency and international competitiveness of industrial production, to utilize foreign investment and technology to a much greater degree than in the past, to improve the performance and rationalize the scope of the public sector, and to reform and modernize the financial sector so that it can more efficiently serve the needs of the economy. The major areas of the second wave of economic reform were:

i) Fiscal Policy

The medium term objective was to progressively reduce overall public sector deficit from an estimated 12.5 per cent of GDP to about 4 per cent of GDP in the mid-1990s. For achieving this target, the Government intended to strictly control public expenditure and aim at higher tax and non-tax revenues. The Government intended to impose fiscal discipline both on the Central Government and the State Governments. Reduction of subsidies was to be furthered by a movement to a more objective system of administered prices taking into account market developments and domestic supply conditions.

Besides, the Central Government would encourage the State Governments to streamline the working of their enterprises, more especially State Electricity Boards and Road Transport Corporations. The budgetary support to Central Public Enterprises would also be withdrawn and they would be strengthened to improve efficiency and profitability.

ii) External Policies

The Government's stabilization and import compression measures were expected to reduce the external account deficit to 2 per cent of GDP.

iii) Social Policies

The Government was of the view that whereas the process of macro-economic adjustment was bound to be painful, it was committed to adjustment with a human face, and therefore, a steadfast adherence to the objective of poverty alleviation was an integral part of our conception of adjustment process. With this principle in mind,
the Government provided for higher outlays on elementary education, rural drinking water supply, assistance to small and marginal farmers, programmes for women and children, programs for the welfare of scheduled castes and scheduled tribes and other weaker sections of the society, as well as increased spending on infrastructure and employment-creation projects in the rural areas.

iv) Industrial Policy Reforms

The regulatory framework which acted as a barrier to entry and growth was sought to be basically changed by the Industrial Policy announced on July 24, 1991. The measures introduced in this area along with other economic reforms were as under:

1. Industrial licensing was abolished for all projects except for a list of 15 industries related to security, strategic or environmental concerns and certain items of luxury consumption that had a high proportion of imported inputs.
2. The Monopolies and Restrictive Trade Practices (MRTP) Act applied in a manner which eliminated the need to seek prior governed it approval for expansion of present undertakings and establishment of new undertakings by large companies. MRTP Act restriction was removed.
3. The set of activities henceforth reserved for the public sector was now much narrower than before, and there would be no ban on the remaining reserved areas’ being opened up to the private sector.

v) Foreign Investment Policy

The Industrial Policy (1991) also provided increased opportunities for foreign investment with a view to take advantage of technology transfer, marketing expertise and introduction of modern managerial techniques. It was also intended to promote a much-needed shift in the composition of external private capital inflows towards equity and away from debt-creating flows. The following measures were announced in this regard:

1. Automatic approval would be given for direct foreign investment up to 51 per cent foreign equity ownership in a wide range of industries. Earlier, all foreign investment was generally limited to 40 per cent.
2. To provide access to international markets, majority foreign equity holdings up to 51 per cent equity would be allowed for trading companies primarily engaged in export activities.
3. Automatic permission would be given for foreign technology agreements for royalty payments.

vi) Trade Policy

An important element of that strategy was the transition from a regime of quantitative restriction to price-based system. From 1st April 2001 quantitative restrictions on all items have been removed.

vii) Public Sector Policy

To provide a solution to the problems of the public sector, Government decided to adopt a new approach, the key elements of which were:

1. The existing portfolio of public investment would be reviewed with a greater sense of realism to avoid areas where social considerations were not paramount or where the private sector would be more efficient;
2. Enterprises in areas where continued public sector involvement was judged appropriate would be provided a much greater degree of managerial autonomy;
3. Budgetary support to public enterprises would be progressively reduced;
4. To provide further market discipline for public enterprises, competition from the private sector would be encouraged and part of the equity in selected enterprises would be disinvested; and
5. Chronically sick public enterprises would not be allowed to incur heavy losses

1.9. Economic Reforms in India - An Appraisal

Economic Reforms in India were introduced in 1991 by the Congress government led by Mr. P. V. Narasimha Rao. There is near unanimity among major political parties on the implementation of economic reforms. The agenda of the two major political parties’ viz., the Congress and the Bhartiya Janata Party have shown a very large consensus about economic reforms. Janata Dal, CPI, CPI (M), though indicated some shades of difference, have also accepted the reform package. Some of the regional parties like DMK, AIDMK. Samata Party, Samajwadi Party, the Rashtriya Janata Dal also woo foreign capital to undertake investments in their respective states. In nutshell, it may be pointed out that a consensus has been achieved in the country to introduce and implement economic reforms so as to accelerate the process of development. The reforms process while accelerating economic development should lead thus to the following ends:
(i) A higher rate of growth;
(ii) An enlargement of employment potential leading to full employment;
(iii) Reduction of population living below the poverty line;
(iv) Promotion of equity leading to a better deal for the poor and less well-off sections of society; and
(v) Reduction of regional disparities between the rich and the poor states of India. It would be of interest to examine economic reforms in terms of goals of the society.

i) GDP Growth and Poverty reduction

There is no doubt that economic reforms have been able to promote a relatively higher growth. After the teething troubles of the first two years viz., 1991-92 and 1992-93, the growth rate during 1993-94 to 1997-98 has averaged to more than 7 per cent per annum. After 1991-92, the momentum of growth has been maintained providing increasing evidence that the growth potential has improved as a result of the reforms initiated in 1991.

<table>
<thead>
<tr>
<th>Years</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980-81 to 1990-91</td>
<td>5.2</td>
</tr>
<tr>
<td>1990-91 to 2000-01</td>
<td>5.6</td>
</tr>
<tr>
<td>2000-01 to 2003-04</td>
<td>6.0</td>
</tr>
<tr>
<td>2004-05 to 2008-09</td>
<td>8.8</td>
</tr>
</tbody>
</table>

Source: Datta & Sundharam (2010), Indian Economy, pp-255

If we compare the annual average growth rate during the pre-reform period (1980-81 to 1990-91) which was of the order of 5.2 per cent per annum, then the post-reform decade (1990-91 to 2000-01) also shows a little higher average annual growth rate of 5.8 per cent of real GDP. However, there is a distinct improvement in growth rate of GDP during the 3-year period (2000-01 to 2003-04) to an average of 6.0 per cent and further to 8.8 percent in next 4 years from 2004-05 to 2008-09.
## TABLE No. 1.3 B): Growth Rates and Sectoral Composition of Real Gross Domestic Product (At 2004-05 Prices)

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Sector</th>
<th>Growth Rate (Per cent)</th>
<th>Share in real GDP(Per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agriculture and Allied Activities</td>
<td>3.7</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>Agriculture</td>
<td>3.1</td>
<td>4.1</td>
</tr>
<tr>
<td>2</td>
<td>Industry</td>
<td>8.5</td>
<td>12.9</td>
</tr>
<tr>
<td>a)</td>
<td>Mining and quarrying</td>
<td>4.4</td>
<td>7.5</td>
</tr>
<tr>
<td>b)</td>
<td>Manufacturing</td>
<td>9.3</td>
<td>14.3</td>
</tr>
<tr>
<td>c)</td>
<td>Electricity, gas and water supply</td>
<td>6.9</td>
<td>9.3</td>
</tr>
<tr>
<td>3</td>
<td>Services of which:</td>
<td>10.0</td>
<td>10.1</td>
</tr>
<tr>
<td>a)</td>
<td>Construction</td>
<td>9.1</td>
<td>10.3</td>
</tr>
<tr>
<td>b)</td>
<td>Trade, hotels and restaurants</td>
<td>9.1</td>
<td>11.0</td>
</tr>
<tr>
<td>c)</td>
<td>Transport, storage and communications</td>
<td>12.7</td>
<td>12.7</td>
</tr>
<tr>
<td>d)</td>
<td>Financing, insurance, real estate and business services</td>
<td>11.7</td>
<td>14.0</td>
</tr>
<tr>
<td>e)</td>
<td>Community, social and personal services</td>
<td>8.0</td>
<td>2.9</td>
</tr>
<tr>
<td>4</td>
<td>Gross Domestic Product at factor cost</td>
<td>8.6</td>
<td>9.6</td>
</tr>
</tbody>
</table>

*: Quick Estimates. #: Revised Estimates.

Source: www.rbi.org/databaes/ growth rates and sectoral composition of real gross domestic product.
(a) Economic Reforms and Reduction of Poverty

Dr. Gaurav Datt of the World Bank in his article "Has Poverty Declined Since Economic Reforms?" has compared the decline in head-count index, poverty gap index and squared poverty gap index for rural and urban India in the pre-reform and the post-reform period. The main conclusions of the study are as under:

Table No. 1.4: Comparison of Poverty Estimates on Uniform Recall period

<table>
<thead>
<tr>
<th>Years</th>
<th>Rural</th>
<th>Urban</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973-74</td>
<td>6.4</td>
<td>49.0</td>
<td>54.9</td>
</tr>
<tr>
<td>1987-88</td>
<td>39.1</td>
<td>38.2</td>
<td>38.9</td>
</tr>
<tr>
<td>1993-94</td>
<td>37.3</td>
<td>32.4</td>
<td>36.0</td>
</tr>
<tr>
<td>2004-05</td>
<td>28.3</td>
<td>25.7</td>
<td>27.5</td>
</tr>
</tbody>
</table>

Source: Datta & Sundharam (2010), Indian Economy, pp-256

However, the rate of reduction of poverty during 1973-74 and 1987-88 was from 54.9 percent to 38.9 percent, a reduction of 14 percentage points during the 14 year period. Obviously, the rate of reduction of poverty was at the rate of 1 percent per annum, which was higher than the rate of poverty reduction during the post-reform period, even though GDP growth rate during the post-reform period was much higher than in the pre-reform period. The number of persons below the poverty line of the total number of poor was estimated at 300 million in 2004-05 as against 320 million in 1993-94. The absolute number of poor declined very slowly during the post-reform period.

(b) GDP Growth, Employment Growth and Poverty

The question arises: Why is it that although GDP growth rates have been very high during the recent years (especially after 1993-94), they have not been accompanied by corresponding reduction in poverty. If poverty implies either unemployment or under-employment or absence of good quality employment, then it would be of interest to study the change in employment scenario before and after the economic reforms. Data provided in reveals that total employment increased from 3,026 lacs in 1983 to about 3,568 lacs in 1990-91 and then improved to about 3,829 lacs in 1997-98. The rate of growth of employment was of the order of 2.39 percent per annum during 1983 and 1990-91, which was just equum to the rate of growth of labour force during this period.

In contrast, it has "Seen observed that high growth employment in India has almost always been associated with some reduction in poverty. For example, the
period of high growth of employment in the 1980s with a comparatively lower GDP growth has witnessed a significant reduction in poverty. In the 1990s as hypothesized, a low growth of employment is seen to be associated with an increase in poverty."

Table No 1.5. Movement of Employment 1983-1997 (In Lacs)

<table>
<thead>
<tr>
<th>Years</th>
<th>Total</th>
<th>Organized Sector</th>
<th>Unorganized Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>3,026.00</td>
<td>240.1</td>
<td>2,785.90</td>
</tr>
<tr>
<td>1990-91</td>
<td>3,567.60</td>
<td>270.6</td>
<td>3,297.00</td>
</tr>
<tr>
<td>1997-98</td>
<td>3,828.50</td>
<td>282.5</td>
<td>3,546.00</td>
</tr>
</tbody>
</table>

Growth Rate of Employment Annual Average (%)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1983 to 1990-91</td>
<td>2.39</td>
<td>1.73</td>
</tr>
<tr>
<td>1990-91 to 1997-98</td>
<td>1.00</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Source: Datta & Sundharam (2010), Indian Economy, pp-256

c) Trend of Employment in Organized Sector

Since the focus of the reform process is on organized sector employment, it would be desirable to examine the growth of employment in the organized sector.

Table No 1.6. Annual Growth Rate of Employment in Organized Sector. (In percent)

<table>
<thead>
<tr>
<th>Years</th>
<th>Public Sector</th>
<th>Private Sector</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983-94</td>
<td>1.53</td>
<td>0.44</td>
<td>1.2</td>
</tr>
<tr>
<td>1994-2007</td>
<td>-0.65</td>
<td>1.15</td>
<td>-0.08</td>
</tr>
</tbody>
</table>

Source: Datta & Sundharam (2010), Indian Economy, pp-256

Data given in table reveals that total growth of employment in the organized sector during the 10-year period (1994-2007) was negative, i.e., at the rate of -0.08% per annum as against 1.20% during the pre-reform period (1983-94). The public sector employment decelerated from 1.53% during 1983-94 to -0.65 percent per annum during 1994-2007. Since public sector was rightsizing its employment by shedding the load of surplus workers, it was hoped that private Organized sector would create more employment to compensate and reverse the trend of decelerating employment in the public sector. Despite the fact that GDP growth picked up during the post-reform period, more especially in manufacturing and organized service sector, there was smart increase in the growth rate of employment in the private organized sector to 1.15% during 1994-2007 as against 0.44 percent during 1983-94. Taking the over-all economy, the data indicate the rate of unemployment (Usual
Principal Status) increased from 2.62% in 1993-94 to 2.78% in 1999-00 and further to 3.1 percent in 2004-05.

**ii) Economic Reforms and Impact on Labour**

A review of Industrial relations in the pre-reform period (1981-90) reveals that as against 402.1 million mandays lost during the decade (1981-90), i.e. in the pre-reform period, the number of mandays lost declined to 230.2 million during (1991-2000) the Post-reform period. In other words, whereas workers have resorted much less to strikes fearing the wave of privatization and liberalization, employer’s militancy has become much more pronounced in the post-reform period. The situation has further worsened during 2001-06, and lockout accounted for 74.5 per cent of total mandays lost. Thus, the sharp decline in total manday has been more a consequence of the disciplining of the labour rather than a disciplining of the employers. Emboldened by the tilt in the attitude of the State, the employers have flexed their muscles and resorted to increased militancy against the workers.

**Table No 1.7. Mandays Lost in Strikes and Lockouts Million Total No. of Mandays lost**

<table>
<thead>
<tr>
<th>Period</th>
<th>Strikes</th>
<th>Lockouts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-reform Period</td>
<td>216.4</td>
<td>185.7</td>
<td>402.1</td>
</tr>
<tr>
<td>(1981-90)</td>
<td>(-53.8)</td>
<td>(-46.2)</td>
<td>(-100)</td>
</tr>
<tr>
<td>Post-reform Period</td>
<td>91.6</td>
<td>138.5</td>
<td>230.1</td>
</tr>
<tr>
<td>(1991-2000)</td>
<td>(-39.8)</td>
<td>(-60.2)</td>
<td>(-100)</td>
</tr>
<tr>
<td>2001-2006</td>
<td>39.4</td>
<td>115.1</td>
<td>154.5</td>
</tr>
<tr>
<td></td>
<td>(25.5)</td>
<td>(-74.5)</td>
<td>(-100)</td>
</tr>
</tbody>
</table>

Note: Figures in brackets are percentage of total mandays lost.
Source: Datta & Sundharam (2010), Indian Economy, pp-257

Besides this as a result of 1,687 closures, a total of 1.20 lac workers also lost their jobs. A deeper probe into closures has revealed that managements have used closures as a device to get rid of permanent workers at one location and started a similar unit at another location and recruits a smaller contingent of permanent workers and carries on production with large number of casual or temporary workers. In that sense, closure is used as a device to reduce the component of permanent workers, thereby downgrading the status of total workforce.

In addition, the production units have been resorting to layoff to cut down labour costs in the lean period. During the 7-year post reform period (1991-97), a total of 4.91 lac workers were laid-off. On the plea of redundancy, a total of 20,720
workers were retrenched during 1991-97. This retrenchment is another serious direct blow to the workers.

Table No 1.8. Percentage Distribution of Total Workforce

<table>
<thead>
<tr>
<th>Period</th>
<th>Self-employed</th>
<th>Wage Employment</th>
<th>Casual Labour</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>53.6</td>
<td>15.2</td>
<td>31.2</td>
</tr>
<tr>
<td>1994</td>
<td>51.9</td>
<td>14.7</td>
<td>33.5</td>
</tr>
<tr>
<td>1996</td>
<td>52.4</td>
<td>15.9</td>
<td>32.8</td>
</tr>
<tr>
<td>1997</td>
<td>52.6</td>
<td>14.5</td>
<td>32.9</td>
</tr>
<tr>
<td>1998</td>
<td>50.7</td>
<td>12.3</td>
<td>37</td>
</tr>
</tbody>
</table>

Source: Datta & Sundharam (2010), Indian Economy, pp-258

All these trends have increased the proportion of casual labour in total employment in the post-reform period. It may be pointed out that casual labour which stands lowest in terms of average income as well as security has raised in proportion from 31.2 per cent in 1988 to 37 per cent in 1998. Growing casualisation of labour adversely impacts on the income of the labour.

iii) Increase in Productivity and Real Wage Earning

Industrialist lobbies have frequently charged labour for not raising labour productivity, but forcing an increase in the real wage of earnings of labour. Shariff and Gomber (1999) have studied the problem of increase in labour productivity and real earnings of regular wage/salaried employees. The study reveals, whereas overall real labour productivity showed an increase during 1983-88 by 3.16 per cent and during 1988-94 by 3.32 per cent, the real earning of workers increased at the annual average rate of 7.0 per cent during 1983 and 1987-88, but showed a miserably low increase of 1.0 per cent during 1987-88 and 1993-94. Though the post-reform period is not long enough to arrive at any definite, but it does give some indication of the straws in the wind that the gains of productivity increase during 1988-94 by 3.32 per cent were passed on to the workers by only 1.0 per cent and the rest were pocketed by the employers. This had an unhealthy impact on labour welfare.

i) Neglect of Agriculture - The Major Sin of Economic Reforms

A major criticism of the process of economic reforms is the neglect of agriculture. Data reveal that food grains production increased from 129.6 million tonnes in 1980-81 to 176.4 million tonnes in 1990-91 resulting in annual compound rate of 3.1 per cent. But during the 18-year period of economic reforms, food grains
production increased from 176.4 million tonnes in 1990-91 to 234 million tonnes in 2008-09, indicating an annual average growth rate of 1.6 per cent, which was lower than the growth rate of population. Complacency on the food grains front can certainly cost the nation very dearly in the coming decade. Various reasons have been assigned for this situation. Firstly, the reform process has emphasized the growth of manufacturing and service sectors and thus neglected agriculture.

Agricultural growth has stagnated around 2 percent during the last decade. It was 2.1 percent during the Ninth Plan (1997-2002) and is estimated to be 2.3 percent during the Tenth Plan (2002-07). Economic Survey (2006-07) explaining the situation states: "The structural weaknesses of the agriculture sector reflected in low level of investment, exhaustion of the yield potential of new yielding varieties of wheat and rice, unbalanced fertilizer use, low seeds replacement rate, an inadequate incentive system and post-harvest value addition were manifest in the lack luster agricultural growth during the new millennium."

### Table No 1.9. Gross Capital Formation in Agriculture at 1999-00 prices

<table>
<thead>
<tr>
<th>Years</th>
<th>Total (crore)</th>
<th>Public (crore)</th>
<th>Private (crore)</th>
<th>Share in investment in agriculture %</th>
<th>Investment in Agr. as % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-00</td>
<td>50,151</td>
<td>8,670</td>
<td>41,481</td>
<td>17.7</td>
<td>82.3</td>
</tr>
<tr>
<td>2000-01</td>
<td>45,186</td>
<td>8,085</td>
<td>37,101</td>
<td>18.5</td>
<td>81.5</td>
</tr>
<tr>
<td>2001-02</td>
<td>59,806</td>
<td>9,711</td>
<td>46,095</td>
<td>18.6</td>
<td>81.4</td>
</tr>
<tr>
<td>2002-03</td>
<td>55,668</td>
<td>8,733</td>
<td>46,935</td>
<td>17.2</td>
<td>83</td>
</tr>
<tr>
<td>2003-04</td>
<td>53,840</td>
<td>10,805</td>
<td>43,035</td>
<td>20.8</td>
<td>79</td>
</tr>
<tr>
<td>2004-05</td>
<td>78,848</td>
<td>16,183</td>
<td>62,665</td>
<td>20.5</td>
<td>79.5</td>
</tr>
<tr>
<td>2005-06</td>
<td>93,121</td>
<td>19,909</td>
<td>73,211</td>
<td>21.4</td>
<td>78.6</td>
</tr>
<tr>
<td>2006-07</td>
<td>94,400</td>
<td>22,978</td>
<td>71,422</td>
<td>17.6</td>
<td>82.4</td>
</tr>
<tr>
<td>2007-08</td>
<td>1,10,006</td>
<td>23,039</td>
<td>86,962</td>
<td>20.9</td>
<td>79.1</td>
</tr>
<tr>
<td>2008-09</td>
<td>1,38,597</td>
<td>24,452</td>
<td>1,14,145</td>
<td>17.6</td>
<td>82.4</td>
</tr>
</tbody>
</table>

Source: Datta & Sundaram (2010), Indian Economy, Pp. 259

Table no 1.9 reveals that total investment in agriculture as a percentage of GDP was only 2.8% in 1999-00. However, even this low level of agricultural investment was not maintained and during 2003-04 to 2008-09, it fell to 2.4% of GDP but improved marginally to 3.34 percent in 2008-09. While the economy has indicated a sharp increase in investment to 35% of GDP in 2008-09, the share of investment in agriculture to a level of 3.34 % of GDP is too inadequate, more so when cognizance is taken of the fact that agriculture provides livelihood to 58 percent of population.
Economic Reforms and Industrial Growth

Economic Reforms were mainly intended to remove the bottlenecks, which acted as obstacles in industrial production. To pursue this goal, Industrial licensing was abolished in all but 18 Industries. Later the government delicensed several others. During 1998-99, three, Industries viz., (i) Coal and Lignite, (ii) Petroleum (other than crude and its distillation products), and (iii) Sugar were delicensed. Accordingly, there are only six Industries now under compulsory licensing. Two Industries, viz., Coal and lignite were taken out from the list of Industries reserved for public sector. At present, there are only four industries reserved for the public sector. Put another way, it can be stated that the reform process dismantled the system of Industrial licensing which was considered to be a main roadblock in the progress of industrial development.

Table No 1.10. Average Annual Growth Rate of Industrial Production (Percent)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General Index</td>
<td>7.8</td>
<td>7.2</td>
<td>6.9</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>7.6</td>
<td>7.7</td>
<td>7.3</td>
</tr>
<tr>
<td>Electricity</td>
<td>9</td>
<td>6.4</td>
<td>4.2</td>
</tr>
<tr>
<td>Mining &amp; Quarrying</td>
<td>8.3</td>
<td>3.8</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Source: Datta & Sundharan (2010), Indian Economy, pp-261

Table No. 1.11. Index Numbers of Industrial Production

<table>
<thead>
<tr>
<th>Index Numbers of Industrial Production (Base 1993-94=100)</th>
<th>Weights</th>
<th>Fiscal Year So Far</th>
<th>Full Fiscal Year Averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Index</td>
<td>100</td>
<td>342.9 (3.6)</td>
<td>335.3 (7.8)</td>
</tr>
<tr>
<td>Mining and Quarrying</td>
<td>10.47</td>
<td>204.5 (0.6)</td>
<td>201.8 (6.5)</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>79.36</td>
<td>373.9 (3.5)</td>
<td>364.1 (8.1)</td>
</tr>
<tr>
<td>Electricity</td>
<td>10.17</td>
<td>243.7</td>
<td>247.8</td>
</tr>
</tbody>
</table>
Despite all this, data provided in table 1.10 reveals where as the eighties (1981-82 to 1990-91), general index of Industrial production (IIP) recorded an annual average growth rate of 7.8 per cent, growth rate of IIP slowed down to 6.7 per cent during 1993-94 to 2008-09. In manufacturing, it declined from 7.6 per cent in the ’80s to 7.5 per cent, and in electricity it declined from 9 per cent to 5.5 per cent and in mining & quarrying it slumped from 8.3 per cent to just 3.8 per cent. Thus, the expectations that growth of IIP would be stimulated did not materialize. Further if break the period from 1993-94 to 2008-09 in two parts namely 1993-94 to 2008-09 and 2000-01 to 2008-09, it is found that in the second period growth rate further decelerated.

Table No 1.12. Annual Average Growth Rate of Industrial Production—Use based Classification

<table>
<thead>
<tr>
<th>Sector</th>
<th>1981-82 to 1990-91</th>
<th>1993-94 to 2008-09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Goods</td>
<td>7</td>
<td>5.7</td>
</tr>
<tr>
<td>Capital Goods</td>
<td>11.5</td>
<td>9.7</td>
</tr>
<tr>
<td>Consumer Goods</td>
<td>5.9</td>
<td>6.6</td>
</tr>
<tr>
<td>Intermediate Goods</td>
<td>6.7</td>
<td>7.8</td>
</tr>
<tr>
<td>Durables</td>
<td>13.9</td>
<td>9.6</td>
</tr>
<tr>
<td>Non-Durables</td>
<td>5.5</td>
<td>7.3</td>
</tr>
<tr>
<td>General Index</td>
<td>7.8</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Source: Datta & Sundharan (2010), Indian Economy, pp-261

Table 1.12 provides growth rates of Industrial production on the basis of use-based classification. The data reveal that but for intermediate goods, which recorded a slightly higher growth rate of 6.6 per cent in post-reform period as compared to 5.9 per cent in the eighties, in all the other sectors, growth rates recorded in the eighties were higher In the capital goods sector, growth rate slipped to 9.7 per cent in the post-reform period as against a robust growth rate of 11.5 per cent in the eighties. Even in consumer durables, a decline in annual average growth rate was observed 9.6 per cent as against a much higher growth rate of about 13.9 per cent in the eighties. It failed even to equal the performance observed in the eighties, not to speak of improving the performance as a consequence of the reform process in post-reform period.
iii) Performance of Public Sector Enterprises

Information about the performance of the much-maligned Central Public Enterprises, reveals that gross profit as percentage of capital employed was 11.61 per cent in 1993-94, 15.88 per cent in 1995-96 and then to 21.5 per cent in 2004-05. A similar trend was observed in net profit, which was of the order of 2.84 per cent in 1993-94 but improved to 12.1 per cent in 2005-06. Value added per unit of capital which indicates the efficiency of capital employed also showed an improvement from 0.26 in 1993-94 to 0.44 in 2001-02. Obviously, Central Public Sector Enterprises have shown better performance during the 12-year period of reform (1993-94 to 2005-06).

iv) Economic Reforms and Movement of WPI and CPI

If we leave out the first two years of the post-reform period assuming them to be teething troubles and compare the relative movement of prices for the 11-years period (1993-94 to 2004-05), then the following objective reality is indicated. Rise of prices affects the labour classes adversely as against the capitalist classes who gain disproportionately with a rise of prices. The movement of wholesale price index (WPI) reveals that in the pre-reform period (1981-82 to 1991-92). The annual average increase in WPI was of the order of 6.9 per cent and in the post-reform period (1993-94 to 2008-09); it was of the order of 5.8 percent. Obviously, the situation in the rise of WPI improved during the post-reform period.

Table 1.13: Relative Movement of the Wholesale Price Index (WPI) and Consumer Price Index (CPI) in the post-reform period

<table>
<thead>
<tr>
<th>Years</th>
<th>WPI (Base 1993-94= 100)</th>
<th>Consumer Industrial Workers (Base 1982=100)</th>
<th>Price index Agricultural Laborers (Base 1986 87=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993-94</td>
<td>100</td>
<td>267</td>
<td>189</td>
</tr>
<tr>
<td>1994-95</td>
<td>112.6</td>
<td>293</td>
<td>204</td>
</tr>
<tr>
<td>1995-96</td>
<td>121.6</td>
<td>319</td>
<td>237</td>
</tr>
<tr>
<td>1996-97</td>
<td>127.2</td>
<td>351</td>
<td>262</td>
</tr>
<tr>
<td>1997-98</td>
<td>132.8</td>
<td>330</td>
<td>272</td>
</tr>
<tr>
<td>1998-99</td>
<td>140.7</td>
<td>414</td>
<td>296</td>
</tr>
<tr>
<td>1999-00</td>
<td>145.3</td>
<td>434</td>
<td>306</td>
</tr>
<tr>
<td>2000-01</td>
<td>155.7</td>
<td>445</td>
<td>300</td>
</tr>
<tr>
<td>2001-02</td>
<td>161.3</td>
<td>468</td>
<td>309</td>
</tr>
<tr>
<td>2002-03</td>
<td>166.8</td>
<td>487</td>
<td>324</td>
</tr>
<tr>
<td>2003-04</td>
<td>175.9</td>
<td>504</td>
<td>332</td>
</tr>
<tr>
<td>2004-05</td>
<td>187.2</td>
<td>525</td>
<td>340</td>
</tr>
<tr>
<td>2005-06</td>
<td>195.6</td>
<td>551</td>
<td>358</td>
</tr>
<tr>
<td>2006-07</td>
<td>206.2</td>
<td>588</td>
<td>352</td>
</tr>
</tbody>
</table>
But a better index of measuring welfare would be to study the movement of Consumer Price Index (CPI). The data reveal that CPI for Industrial Workers (CPI-IW) indicated an annual average rise of 6.5 per cent for the period 1993-94 to 2008-09 which is marginally higher than increase of WPI. Similarly, CPI for Agricultural labourers (CPI-AL) increased annually by 6.2 per cent in the post-reform period which indicates a relatively lower increase than WPI.

The overall point-to-point inflation rate of 9% as measured by the wholesale price index as of end March 2011 showed some deceleration compared with the rate of 10.2% as of end March 2010, though inflation continued to rule at elevated levels. Inflation in primary articles was significantly lower at 13% compared with 22.2% a year ago, and that of fuel and power was also lower at 12.9% compared with 13.8%. But the inflation rate of manufactured products at 6.2% was higher than the 5.2% recorded a year ago, clearly signaling a build-up of demand side pressures.

### Table No. 1.14 Index Numbers of Wholesale Prices (Variation (in %): Point-to-Point)

<table>
<thead>
<tr>
<th>Index Numbers of Wholesale Prices (Base Year: 2004-05 = 100)</th>
<th>Weights</th>
<th>16-Apr 2011</th>
<th>Over Month</th>
<th>Over 12 Months</th>
<th>Fiscal Year So Far</th>
<th>Full Financial Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Articles</td>
<td>20.1</td>
<td>191.1</td>
<td>2.1</td>
<td>12.1</td>
<td>21</td>
<td>15.2</td>
</tr>
<tr>
<td>Food Articles</td>
<td>14.3</td>
<td>182.6</td>
<td>2.2</td>
<td>8.8</td>
<td>19.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Non-Food Articles</td>
<td>4.3</td>
<td>192.5</td>
<td>1.4</td>
<td>26.5</td>
<td>18.1</td>
<td>0.2</td>
</tr>
<tr>
<td>Fuel &amp; Power</td>
<td>14.9</td>
<td>160.3</td>
<td>1.1</td>
<td>13.5</td>
<td>13.4</td>
<td>1.1</td>
</tr>
<tr>
<td>Manufactured Products*</td>
<td>65</td>
<td>133.4</td>
<td>1.4</td>
<td>6.2</td>
<td>5.2</td>
<td>6.2</td>
</tr>
<tr>
<td>Food Products*</td>
<td>10</td>
<td>145.1</td>
<td>0.3</td>
<td>2.4</td>
<td>15.1</td>
<td>2.4</td>
</tr>
<tr>
<td>Food Index (computed)*</td>
<td>24.3</td>
<td>165.2</td>
<td>-0.5</td>
<td>6.8</td>
<td>18.5</td>
<td>6.8</td>
</tr>
<tr>
<td>All Commodities (points to point basis)*</td>
<td>100</td>
<td>148</td>
<td>1.4</td>
<td>9</td>
<td>10.2</td>
<td>9</td>
</tr>
<tr>
<td>All Commodities (Monthly average basis)</td>
<td>100</td>
<td>142.6</td>
<td>-</td>
<td>9.4</td>
<td>3.6</td>
<td>0</td>
</tr>
</tbody>
</table>

The first release data based on 2004-05 series w.e.f 14 September 2010. $ Full fiscal year variation is based on 1993-94=100 series

Source: Economic & Political Weekly, May 7, 2011 Vol XLVI No 19

v) **Trend of Growth in Infrastructure**
Table provides information about the trend in the Index of Infrastructure Industries for the period 1980-81 to 2008-2009. The analysis reveals that in case of saleable steel and cement, the growth rates were higher in the post-reform period than in the pre-reform period. In case of steel, the growth rate of production increased by 8.8 per cent during 1993-94 and 2008-09 as against only 4.9 per cent in the pre-reform period (1980-81 to 1990-91). Similarly, the growth of cement production also indicated sharp increase by 8.2 per cent during 1993-94 to 2008-2009 as compared to only 4 per cent in the pre-reform period. However, it should be pointed out that the momentum gained in the post-reform period for acceleration in the production of cement was the consequence of introduction of dual pricing in the case of cement introduced in 1982 with progressive reduction in the percentage of controlled cement to eventually freeing cement prices from state control. This led to massive increase in the cement capacity and output. Similarly, gradual easing of steel price control was accepted by the Government in 1983. But all these measures were taken in the pre-reform period, which helped to provide an environment to these industries to raise their capacity and output without any bottlenecks.

| Table No 1.15. Average Growth Rate, Trends in Index of Six Infrastructure Industries (1980-81 = 100) |
|---------------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------|
|                                                                | 1880-81 to 1990-91 | 1990-91 to 1993-94 | 1993-94 to 2008-09 |
| Electricity                                                   | 9.1               | 6.9               | 5.5               |
| Coal                                                          | 6.4               | 5.1               | 4.6               |
| Sealable Steel                                                | 4.9               | 8.9               | 8.8               |
| Cement                                                        | 4.0               | 6.0               | 8.2               |
| Petroleum                                                     | 12.4              | -72               | 1.4               |
| Petroleum Refinery Product                                    | 6.5               | 1.6               | 7.6               |
| Composite Index                                               | 8.0               | 5.1               | 6.1               |

Source: Datta & Sundharan (2010), Indian Economy, pp-262

However, other infrastructure Industries - electricity, coal and petroleum did not fare well in the post-reform period. In the case of electricity, whereas in the eighties growth rate of generation was of the order of 9.1 per cent, it was just 5.5 per cent in the post-reform period. Likewise, coal production declined from 6.4 per cent in the eighties to just 4.6 per cent during 1993-94 to 2008-09. In case of petroleum, growth rate dipped from 12.2 per cent in the eighties to just 1.4 per cent during 1993-94 to 2008-2009. While the state withdrew from these sectors and did not undertake investment in infrastructure, the private sector Indian as well as foreign failed to fill
the vacuum. Obviously, excessive dependence on private sector in the post-reform period did not yield the much trumpeted and desired results.

ix) India's Foreign Trade and Balance of Payments

Although policies of liberalization in foreign trade were initiated in 1985-86 but their impact though felt during the period 1986-87 to 1990-91 was slow and after 1991 the new economic reforms went in for a more rapid globalization of the Indian economy by reducing and abolishing quantitative restrictions and also reducing tariff barriers which hindered trade. The main implications of reform measures were intended to boost exports as well so as to facilitate developmental imports or such imports, which were vital for increasing industrial production, may be of some raw materials. It would, therefore, be appropriate to compare trend of foreign trade in the pre-reform periods i.e. 1980-81 to 1990-91 (described as the eighties) and the period 1991-92 to 2004-2005 the post-reform period.

**Table No 1.16. India’s Export, Import, Trade of Balance and Balance of Payment (Post – Reform Period 1991-92 to 2008-09)**

<table>
<thead>
<tr>
<th></th>
<th>Export</th>
<th>Import</th>
<th>Trade Balance</th>
<th>Net Invisible</th>
<th>Balance of payment on Current Account</th>
<th>1 as % of 2</th>
<th>4 as % of 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Average (1981-82 to 1985 - 86) Average Growth Rate</td>
<td>9,514</td>
<td>16,404</td>
<td>-6,890</td>
<td>3,474</td>
<td>3,416</td>
<td>58</td>
<td>50.4</td>
</tr>
<tr>
<td>Annual Average (1986-87 to 1990-91) Average Growth Rate</td>
<td>14,549</td>
<td>22,697</td>
<td>-8,148</td>
<td>1,362</td>
<td>-6,786</td>
<td>64.1</td>
<td>16.7</td>
</tr>
<tr>
<td>Annual Average (1991-92 to 1995-96) Average Growth Rate</td>
<td>23,797</td>
<td>30,339</td>
<td>-6,542</td>
<td>3,514</td>
<td>-3,028</td>
<td>78.4</td>
<td>53.7</td>
</tr>
<tr>
<td>Annual Average (1996-97 to 2000-01) Average Growth Rate</td>
<td>37,309</td>
<td>52,465</td>
<td>-15,156</td>
<td>10,667</td>
<td>-4,489</td>
<td>71.1</td>
<td>70.4</td>
</tr>
<tr>
<td>Annual Average (2001-02 to 2005-06) Average Growth Rate</td>
<td>70,413</td>
<td>95,136</td>
<td>244,903</td>
<td>26,608</td>
<td>1,705</td>
<td>74.9</td>
<td>108</td>
</tr>
<tr>
<td>2006-07</td>
<td>128,888</td>
<td>190,670</td>
<td>-61,782</td>
<td>52,217</td>
<td>-9,565</td>
<td>67.6</td>
<td>84.6</td>
</tr>
<tr>
<td>2007-08</td>
<td>166,162</td>
<td>257,629</td>
<td>-91,467</td>
<td>75,731</td>
<td>-15,737</td>
<td>64.5</td>
<td>81.4</td>
</tr>
<tr>
<td>2008-09</td>
<td>189,001</td>
<td>307,651</td>
<td>-18,650</td>
<td>89,923</td>
<td>-28,728</td>
<td>59.5</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: Datta & Sundharan (2010), Indian Economy, pp-2563
Table presents a picture of the India's foreign trade in the eighties. The decade has been divided into two periods. During the first five years (1981-82 to 1985-86), India achieved a growth rate of 2.3 percent in exports, but in imports, the growth rate was barely 2.0 per cent. India followed a restrictive import policy during the period. Consequently, as against the average annual exports of $ 9,514 million, average annual imports were of the order of $ 16,404 million. As a result, average trade deficit was $ 6,890 million since net invisibles were positive; the surplus from this head on the average was $ 3,474 million. Thus, surplus from invisibles was able to neutralize the trade deficit by 50.4 per cent. Consequently balance of payment deficit on current account could be restricted to $ 3,416 million. During this period, exports as a percentage of imports were only 58 per cent and thus, the situation was highly unsatisfactory.

x) Foreign Investment

Table 17 provides information about investment flows in India during the last 15 years (1991-92 to 2006-07), Data reveal that during the 16 year period, a total of US $ 136.5 billion was invested in India in the form of foreign investment, out of which $ 72.09 billion (52.8 per cent of total) was in the form of direct investment and $64.44 billion (47.2 percent) was in the form of portfolio investment.

<table>
<thead>
<tr>
<th>Year</th>
<th>Investment</th>
<th>Portfolio Investment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991-92</td>
<td>12</td>
<td>4</td>
<td>133</td>
</tr>
<tr>
<td>1992-93</td>
<td>315</td>
<td>244</td>
<td>559</td>
</tr>
<tr>
<td>1993-94</td>
<td>586</td>
<td>3,567</td>
<td>4,153</td>
</tr>
<tr>
<td>1994-95</td>
<td>1,314</td>
<td>3,824</td>
<td>5,138</td>
</tr>
<tr>
<td>1995-96</td>
<td>2,144</td>
<td>2,748</td>
<td>4,892</td>
</tr>
<tr>
<td>1996-97</td>
<td>2,821</td>
<td>3,312</td>
<td>6,133</td>
</tr>
<tr>
<td>1997-98</td>
<td>3,557</td>
<td>1,828</td>
<td>5,385</td>
</tr>
<tr>
<td>1998-99</td>
<td>2,462</td>
<td>-61</td>
<td>2,401</td>
</tr>
<tr>
<td>1999-00</td>
<td>2,155</td>
<td>3,026</td>
<td>5,181</td>
</tr>
<tr>
<td>2000-01</td>
<td>4,029</td>
<td>2,760</td>
<td>6,789</td>
</tr>
<tr>
<td>2001-02</td>
<td>6,13</td>
<td>2,021</td>
<td>8,151</td>
</tr>
<tr>
<td>2002-03</td>
<td>5,035</td>
<td>979</td>
<td>6,014</td>
</tr>
<tr>
<td>2003-04</td>
<td>4,322</td>
<td>1,1377</td>
<td>15,699</td>
</tr>
<tr>
<td>2004-05</td>
<td>6,051</td>
<td>9,315</td>
<td>15,366</td>
</tr>
<tr>
<td>2005-06</td>
<td>8,961</td>
<td>12,492</td>
<td>21,453</td>
</tr>
<tr>
<td>2006-07</td>
<td>22,826</td>
<td>7,003</td>
<td>29,829</td>
</tr>
</tbody>
</table>
Segregated data reveal that direct investment flows remained subdued during 1991-92 to 1994-95 and in this period portfolio investment accounted for a larger share, but in the later period 1995-96 to 2002-03, direct investment flows picked up and they accounted for quite a significant share and from 1997-98 and 1998-99, direct investment became dominant. It may also be noted that portfolio investment is of a very undependable and volatile nature. This is witnessed by the fact that portfolio investment slumped to a level of US $1.83 billion in 1997-98 as against US $3.31 billion in 1996-97 and became negative in 1998-99. The sudden fall of portfolio investment to a negative level resulted in the total inflow declining from US $6.13 billion in 1996-97 to $2.40 billion in 1998-99. This only highlights the fact that although foreign investment is welcome, it would be more desirable to depend on inflows of foreign direct investment.

B) Review of Labour Market Concepts

1.10. Labor”-The Meaning of the Word

Five definitions of the noun "labor" are given in *The American College Dictionary* “1. Bodily toil for the sake of gain or economic production. 2. Those engaged in such toil considered as a class: the rights of labor. 3. Work, esp. of a hard or fatiguing kind. 4. A work or task done or to be done: the twelve labors of Hercules. 5. The pangs and efforts of childbirth travail.”Consider these definitions in reverse order. Even though each of you has been the cause of the labor attendant to your own birth and though many of you will be directly or indirectly affected in the future by such labor problems, we may leave further discussion of the fifth definition to the medical men. The other definitions use the word in three different ways: (1) task, (2) class, and (3) toil. Emphasis is placed on hard, bodily work. Among those who work hard, a sense of understanding, appreciation, and brotherhood may help to create a “class” consciousness. Thus, one can understand the use of the term “labor movement”

*Webster's New Collegiate Dictionary* explains the meaning of "labor" in still another way: " …the service rendered or part played by the laborer, operative, and
artisan in the production of wealth, as distinguished from the service rendered by capitalists or by those whose exertion is primarily and almost entirely mental. . . “Webster's New World Dictionary of the American Language includes others: a) all wage-earning workers: distinguished from capital and management, b) all manual workers whose work is characterized largely by physical exertion: distinguished from white-collar or professional workers. 4) The work accomplished or the paid played in society by all workers.”

"Labor is human effort which is expended for the purpose of acquiring income."- Ralph H. Blodgett, In this broad usage, a janitor, a drill-press operator, a highly skilled tool and die maker, a maintenance man, a foreman, a superintendent, a vice president in charge of industrial relations and, yes, an accountant, a baker, a lawyer, a teacher, a typist are all expending human energy for purpose of acquiring income.

According to Marshall, labour may be defined as “Any extension mind or body undergone partly or wholly with a view to some good other than pleasure derived directly from the work”.

The terms labourers’, worker’, ‘workman’ and ‘employee’ are practically synonymous in the discussion on labour problems. Means wage labour which may be defined as workers who do not have any other ‘adequate’ source of livelihood except the sale of their labour power.

i) What is Labour?
According to The Concise Oxford Dictionary, labour means bodily or mental work, exertion, toil leading to supply wants of the community, body of those who contribute by toil to production, labourers, the labouring class as a political force, the labour group etc. Labour party means the political party representing interests especially of workers. Labour exchange means employment exchange. Labour force means the body or the number of workers employed. Labour union means trade union of labourers. Labour market means the market of supply of labour with reference to its demand. A labourer has been defined as one who labours, the man doing bodily exertion for wages, work that requires strength or patience rather than skill or training. Again, to labour means to exert oneself and to work hard, to strive for purpose to make living. All these explanations are a necessary prelude for the understanding of labour problems, labour welfare and other things concerning the labourers.
1.11. Labour as a Factor of Production

The people are the most valuable resource of a nation. The operation of an economy depends, to a great extent, on the employment of people, i.e. on the purchase, sale and performance of labour services. It is the work of labour which builds our towns, cities and factories, which makes the things we buy and which supplies us with services of all types. In fact, labour is the source of all wealth and backbone of the nation.

Thus it is obvious that labour is the sole source of all production. As a factor of production, it is most important, because the utilization of other factors largely depends on the proper and optimum utilization of time and energy on the part of workers. As a matter of fact, workers are human beings, capable of holding responsibilities, extending co-operation and achieving objectives. They have their own attributes and aspirations which, if handled properly, lead to the success of industry and growth of the economy. Besides, labour is no more an unorganized mass of ignorant and unconscious workers, always ready to obey the arbitrary orders and dictates of their employers. Today they are very much articulate and they from an important and vocal section of the commodity. They have now acquired a dignity and social status in the society. They have a crucial and significant role to play in a developing economy like India. That is why greater interest is being taken in the study of labour and its problem these days by the government agencies, voluntary and social welfare organization, planners and policy-makers, employers and all other concerned. In India, it is also being increasingly realized that labour education and the study of labour problems can provide a common platform for trade unions, universities and centers of higher learning and research.

There are a number of factors which have contributed to this increasing importance of labour in modern times: i) the desire for greater and greater industrialization, modernization and increased productivity, ii) the need for maintaining and promoting industrial peace, iii) the recognition of the importance of increased association of labour with management in industry, iv) progressive labour legislation, and v) the growing class-consciousness among the working-class people.

1.12. Significance and peculiarities of labour

As a factor of production labour is the most important and utilization of other factors largely depends on the proper utilization of time and energy on the part of
workers. Intact, workers are human beings capable of holding responsibilities, extending co-operation and achieving objective. They have their own attributes and aspirations, if handled properly, lead to the success of industrial or other work and growth of the economy. Today management deals with labour not only as individual but also as members of trade unions which have greatly added to its strength and consciousness.

In the days since independence there has been a continuous rise in his money earning and he now receives general new amenities because of legislation and also because the condition of the new industries require provision of their facilities, though this has not been without struggles nor has its necessarily improved his standard of living significantly or mitigated his worries about the future of his dependents since the employment situation in the country has been increasing more difficult.

Obviously labour is a Major factor in the field production and its great role cannot be our estimated. Today it forms an important and local section of the communities and has now become front page news, particularly in a developing economy like that of India. Today greater interest is being taken in the study of labour and its problems by state agencies, social welfare organizations, planners, employers and all others concerned with it. It is realized that in India labour education, which areas training and research on problems pertaining to labour, can provide a common platform for trade unions and universities.

The future prosperity of a nation depends in a large measure, on the proper solution of working special problems of labour engaged in various industries of the economy.

It is important to remember that labour is manifestly different from other factors of production. There are certain characteristics which distinguish it from the rest of the factors of production. Such characteristics are often labeled as peculiarities of labour. They may be put as follows:

i)  Peculiarities :-

1) Labour is inseparable the labourer himself. In the words of Alfred Marshall “The worker sells his work but he himself remains his own properties; those who bear the expenses of rearing and educating him receive but little of the price that is paid for his services later”.

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2) “When a person sells his services, he has to present himself where that are delivered”. Therefore the environment in which the worker has to perform is of its most importance in the supply of labour.

3) Labour does not last. It a worker does not work for a particularly, he loses on the lost hours which would never come back to him in future.

4) Labour has a heavy work beginning power. As sells of labour are commonly poor and have no resource fund they cannot easily withhold it from the market. Hence, Erich Roll remarks that “the worker has no reserve price”.

5) Rapid adjustment of the supply of labour to the demand is not possible for example; if there is a period of depression where in the demand for labour decreases its supply cannot be contracted and wages therefore must fall.

6) Labour is not so mobile as capital. The difference in the environment language custom etc, at different places is a hindrance to the movement of the workers from one place to another.

7) Labour is human factor and therefore not only economic but moral and social consideration should also be taken into account on the discussion of problems connected with labour.

1.13. Definition, Nature, Scope and Importance of Labour Economics:

Labour Economic, as one of the most branches of Economic; represents are specialized plan of the study of functions of labour in economic process. It analyses and seeks to understand in detail labour market situation in a manner that Economics, as a whole, cannot afford to do.

Definition:
Labour Economics may be defined as “A study of the organization, institution and behavior of the labour market in an industrializing or industrialized economy”.

1) According to Loiter, Labour Economics “deals with the characteristics of labour market, with the classification and analyses of labour problems and with the development and role of trade unions”

2) Dale Yoder says that “Labour Economics or manpower Economics is primarily concerned with efficient utilization and conservation of manpower and resources. It studies and seeks to understand the process by which manpower is applied and
utilized in modern society. It is concerned with the allocation, utilization and conservation of manpower.

3) According to K.C.G. Seth, “Labour Economics studies the utilization of relatively scale human resources in the social production system.”

4) Prof. C. N. Vakil has suggested a compromised definition, “Labour Economics studies the conditions of the effective utilization of human resource in relation to other resources in a growing economy with due regard to human welfare”.

Labour Economics has to deal with the aspects Manpower planning, Labour organization, Labour relations and public policy Wage and employment theory, Collective bargaining theory. According to Dr. Shina, the following areas do study may be listed to fall under the preview do labour Economics.

i. Institutional framework of the particular economic system.

ii. Size and composition of the labour forces and labour market.

iii. Labour as a factor of production productivity and efficiency condition of whole industrial relation, standard of living, labour’s share in national income.

iv. Labour’s risks and problems

v. Trade unionism

vi. Labour’s status and position in society

vii. Labour legislation

A useful distinction may be made been to parts of labour Economics - Theoretical and Institutional aspects. Theoretical aspects of Labour Economics is concerned chiefly with building up to medals of economic behavior by making different sets of assumption and as such it may be regarded as a part of general economic theory.

The Institutional Aspects Labour Economics - It is concerned chiefly with studies of labour problems in an institutional historical contact. Infact the nature of labour problems changes with a change in the institutional frame work do the economic system.

A proper understanding of the system of wage determination of the working methods or procedures of the trade unions cannot be isolated from an adequate analysis of the institutional factors. The labour economist like any other economist has essentially been especially interested in economic problems and economic activities.
i) Concept of Labour Market

Market is place/location the buyers and seller exchange goods and services. Economics distinguished markets on the basis of nature of goods.

The term of ‘Labour Market’ has been defined in various ways depending on the problems to be studied. Purely from a theoretical standpoint labour market may be defined as “a process by which supplies of a particular types of labour and demand for that type of labour balance or seek to obtain a balance” the labour market is the place for operation of this process. It is the only device for sorting out workers with varying skills and interests among the multitude of different is the economy.

ii) Characteristics of Labour

The following are the chief characteristics of labour as it is understood in economics, sociology and other social sciences concerned with labour:

a) Source of wealth. According to most of the thinkers labour is the factor in production process which is the main source of all wealth. In the words of Frederic Engels, "Labour is the source of all wealth, the political economists assert. It is this next to nature, which supplies it with the material that it converts into wealth. But it is even infinitely more than this. It is the prime basic condition for all human existence; and this to such an extent that, in a sense we have to say that labour
created man himself." The Marxist theory of surplus value is based upon this idea. Therefore, Karl Marx recommends that the surplus value should be distributed among the workers.

b) **Living thing.** Labour is a living thing. It is inseparable from the personality of the labourer. It is not a commodity. It cannot be bargained or sold and used like things. Therefore, it has been recommended that a human behaviour and environment for labourers must be ensured by the employers.

c) **Saleable.** However, labour is saleable, though the worker retains his own property. His training and efficiency are very important in this connection. A skilled worker gets better price for his labour. Therefore, it has been advised that the labourers must be given opportunity for training to develop their skill and efficiency.

d) **Perishable commodity.** Labour is a perishable commodity. If it is not used today it will lost forever. It cannot be stored up. It has no reserve price. The worker cannot afford to wait. Hence, he is in a weak bargaining position in comparison to the employers. A significant corollary from this characteristic of labour is that the employers and the government and the trade unions must take special care not to waste mandays since labour lost is lost forever.

e) **No rapid adjustment with demand.** As labour is not a commodity it cannot always rapidly adjust with the law of demand and supply. Neither can its supply be curtailed in the condition of low demand nor can its supply be increased in the case of increase in demand. This characteristic is important both for the workers and employers.

e) **Less productive than capital.** Capital may buy machine which is more productive than the labourer. A man stands poor in comparison with the productive capacity of the modern machine. Today, complex and improved automatic machines require no human effort. They are solely run by power. The labourer cannot compete with them. Therefore, in the capitalist competitive economy, the owners of the capital claim the major share of the profits. They take away the largest share of the national income. On the other hand, Marxist ideology does not accept this capital theory, since according to its capital is amassed by exploitation of labourers. Therefore, ultimately the major share of profits should go to the labourers.
f) **Human factor.** The most important characteristic of labour, from the point of view of social welfare and security, is the human factor. The labourer is a human being. Therefore, moral and social considerations must be taken into account in any discussion of labour problems and social welfare.

g) **Less mobile than capital.** Labour being human is less mobile than capital. Capital may be stored and converted into currency which can be transacted through paper money and bank cheques and drafts etc. Thus, capital is very mobile. In comparison labour is less mobile. Therefore, the capital always dominates the labour. Indian labourers are particularly less mobile since in this country there are a wide variety of natural and social environments everywhere.

An important characteristic of the population of a country is the size and quality of labour force. Labour force is influenced by morality, fertility and migration. All these factors determine labour force in a country.

**1.14 Concepts of Demand for Labour**

Wage in economic theory is the price of labor. Therefore, like the price of any other commodity, it is determined by the forces of demand and supply. This view has been held by the majority of economic theorists, but perhaps it’s most explicit expression is to be found in the following words of J. R. Hicks, “Wages are the price of labor, and thus, in the absence of control, they are determined like all other prices by supply and demand. An empirical verification of this theoretical proposition according to Dr. T. S. Papola may be attempted with the hypothesis that the excess supply of labor tends to lower the wages while excess demand for labor tends to raise them. The term ‘excess demand’ is used to mean the excess of total demand for workers by the employers over the total number of persons qualified for and seeking the job.

The theoretical perspective and empirical research suggest at least two principal concepts of the demand for labour. One is the concept of demand as the number of workers employed in each industrial market and another concept, derived from economic theory, is one which describes a price-employment function, similar to the price-quantity function for commodities. This concept postulates that demands vary with the price of labor, so that there may be a difference between the employment and potential demand for labor. There might be many other variables which affect the demand for labor in a given situation, but assuming them to be
constant, a demand schedule for labor is constructed showing the quantities of labor demand at different (hypothetical) wage rates. The demand curve, accordingly constructed gives an idea of elasticity of demand and shows the relationship between the price and the quantity.

The demand for labor generally depends on the following factors – (i) the marginal revenue curve of employers, (ii) the marginal cost curve of labor, (iii) the techniques of production which determine the mode of factor-combination in different proportions, and (iv) the elasticity of supply of substitute factors of production. The employer’s main interest is the marginal revenue curve which determines their own net profit from business. Every employer in industry will employ labor to the extent where the value of marginal productivity of labor equals the amount of wages paid to the marginal worker. The money value of the marginal productivity of labor is, therefore, the maximum limit of the demand for labor. The demand for labor rarely, if ever, is adequate to absorb all those who offer themselves for employment is evident from the fact that a considerable volume of labor in every capitalist economy remains unemployment even in the best times. A capitalist economy normally has a tendency to work at a level which is much below the level of full employment.

1.15 The Demand for Labour in the Short Run

i) The Marginal Productivity Theory of Labor Demand

The optimal level of employment for a business firm is contingent on a number of factors, such as the cost of labor, the productivity of the workforce, the level of production, and the price the business firm can charge for its product. The theory of labor demand developed here organizes these diverse considerations into a model of employer decision making which, though relatively simple, nevertheless has considerable ability to explain real-world behavior.

The Model

The standard model of labor demand in economics is the neoclassical marginal productivity theory of demand. It is assumed that the goal of business firms is to maximize dollar profits and the firm uses only two factors of production, capital and labor, to produce its product. The business firm operates in perfectly competitive product and labour markets. The substantive importance of this assumption is that both the price the firm can get for its product and the wage rate it has to pay for labor are unaffected by changes in its individual production and hiring decisions, and thus
both variables can be treated as given. Finally, it is assumed that wages represent the only cost of labor and that labor is completely *homogeneous*, meaning that each worker is identical. In deriving the short-run demand for labor, the first task is to determine the increase in revenue to the firm from hiring and additional worker. This involves several steps, the first of which is to determine worker productivity.

**The Production Function:** The relationship between the amount of capital inputs (K) and labor inputs (L) used in production and the resulting output (Q) is determined by the firm’s production function:

\[ Q = f(K, L) \]  --- 1.1

The production function represented in Equation 1.1 states that the amount of output produced \( Q \) is a function \( f \) of the amount of capital \( K \) and labor \( L \) used by the firm, given the current state of technology. While the production function given in Equation 1.1 is simply an abstract mathematical representation, economists can determine the actual statistical relationship between inputs and outputs for a particular firm or industry, given the appropriate data.

Since the amount of capital is fixed in the short run, additional output can be produced by the firm only by hiring additional workers. Holding capital constant, the production function in Equation 1.1 can be used to predict the increase in output that would result from these extra workers. Such data for a hypothetical firm are shown both in tabular and in graphic form in Figure 1.0.

<table>
<thead>
<tr>
<th>Labor Input L</th>
<th>Quantity of Output Q</th>
<th>Average Product ( AP_L )</th>
<th>Marginal Product ( MP_L )</th>
<th>Marginal Revenue ( MR )</th>
<th>Marginal Revenue Product ( MRP_L )</th>
<th>Wage Rate W</th>
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<tbody>
<tr>
<td>1</td>
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<td>136</td>
<td>17</td>
<td>-18</td>
<td>2</td>
<td>-36</td>
<td>40</td>
</tr>
</tbody>
</table>
Note: The production function that generates these data is \( Q = L + 10L^2 - L^3 \). The marginal product of labour would more precisely be calculated according to the following formula, which is simply the first derivative of the total product curve: \( MP_L = 1 + 20L - 3L^2 \).


The Marginal and Average Product of Labor: Two measures of productivity can be calculated from the data on total product and labor input. The first and most important is the marginal product of labor (\( MP_L \)). The \( MP_L \) measures the increment in production contributed by each additional worker hired. The marginal product of labor is defined as the increase in total production (\( \Delta Q \)) from adding one more unit of labor (\( \Delta L \)), that is:

\[
MP_L = \frac{\Delta Q}{\Delta L} \quad \text{......... 1.2}
\]

The marginal product of each worker is given by figure no 1.1 the slope of a line drawn tangent to the total product curve \( TP_L \). Up to \( L_1 \) the tangent lines become steeper, indicating that production is in the area of increasing returns.

![Figure 1.15.1: The Relationship between total and Marginal Product Schedule](image)

Geometrically, the marginal product of each worker is given by the slope of a line drawn tangent to the total product curve at each level of labor input.

The shape of the total product curve in Figure 1.15.1 shows that production in this firm is first characterized by increasing marginal productivity of labor (compare the slope of the first two tangent lines) and then, beyond the employment level of \( L_1 \) (point A), by diminishing marginal productivity of labor (compare the slope of the last
two tangent lines). Starting from a zero level of output, the marginal product of each additional worker at first increases, as only a larger workforce can efficiently use and operate the plant and equipment of the firm. From the origin to \( L_1 \), therefore, is known as the area of increasing returns in production. Beyond \( L_1 \), however, production enters the area of diminishing returns as the marginal product of each additional worker becomes smaller and smaller. The law of diminishing returns states that, holding one factor of production constant, adding additional units of another factor will increase production, but eventually only at a diminishing rate. The second productivity measure is the average product of labour, defined as \( \text{AP}_L = \frac{Q}{L} \), which means the average amount of output produced per worker.

**The Marginal Cost of Labor:** The marginal revenue product data express the marginal benefit to the firm from hiring additional workers. The decision rule to maximize profits is to continue to hire workers as long as the marginal benefit exceeds the marginal cost. The final piece of information needed to determine the firm’s demand for labor, then, is the cost of hiring an additional worker.

**The Equilibrium Level of Employment:** It is now easy to determine the optimal level of employment for this firm. The equilibrium condition for a firm’s labor demand can thus be stated as:

\[
W = MRP_L \quad \text{or} \quad W = MR \cdot MP_L
\]  

For a competitive firm, Equation 4.3 can also be written as:

\[
W = P \cdot MP_L \quad \text{or} \quad \frac{W}{P} = MP_L
\]  

Equation 4.2 states that the firm should continue to hire labor as long as the marginal revenue product of each successive worker exceeds the money wage rate; when the marginal revenue product of the last worker just equals the wage, the optimal level of employment has been reached, and hiring should stop. For the special case of a competitive firm, the product price \( P \) can be substituted for the marginal revenue \( MR \), as in Equation 1.3, and after rearranging terms yields an equivalent statement of the firm’s optimal employment level-hire workers as long as the marginal product of labor is greater than or equal to the real wage \( \frac{W}{P} \).

**1.16. The Short-Run Demand Curve for Labor**
The equilibrium condition given in Equation 1.3 can be used to derive the firm’s short-run demand curve for labor, as shown in Figure 1.16.1. The short-run labor demand curve depicts the relationship between the wage rate and the firm’s desired level of employment, holding capital and all other factors constant.

The horizontal axis measures employment \( L \); the vertical axis measures the wage rate per hour \( W \). The first step in deriving the demand curve is to plot the data on marginal revenue product \( MRP_L \). Since \( MRP_L \) is measured in terms of dollars, as are wages, these data can be plotted in the same diagram. The line labeled \( MRP_L \) is the marginal revenue product schedule. It shows the marginal revenue product of each worker: the fourth worker’s \( MRP_L \) is $65; the fifth worker’s \( MRP_L \) is $60, and so on. It turns out that the downward-sloping portion of the \( MRP_L \) schedule in Figure 1.17.1 (the solid part of the line) is the firm’s demand curve for labor \( (D_1) \). The equilibrium condition says the hire each additional worker as long as the increase in revenue \( (MRP) \) is greater than or equal to the increase in wage cost \( W \).

![Figure 1.16.1. A Hypothetical Marginal Revenue Product Schedule and Labor Demand Curve](image)

The marginal revenue product schedule \( MRP_L \) shows the additional revenue the firm obtains from hiring each worker. The fifth worker brings in $60, the sixth worker $40, and so on. The downward-sloping portion of the \( MRP_L \) schedule is also the firm’s short-run demand curve for labor (shown by the solid portion of the line). Thus, if the wage \( W \) is $40, the firm would maximize profit by hiring five workers (point \( A \)) since each of these workers has an \( MRP_L \) at least as great as the wage. At a wage of $60, the optimal employment level is five workers (point \( B \)).

i) **An Increase in Product Demand:** What will happen to the firm’s demand for labor if the demand for its product increases? An increase in product demand in a
competitive industry will cause the price of the product to rise in the market as the product demand curve shifts to the right along a given upward-sloping supply curve. This immediately affects the demand for labor on the part of each individual firm, since price $P$ is part of the marginal revenue product.

![Figure 1. 16.2 The Impact on the Labor Demand Curve of Changes in Product Demand and Market Structure](image)

Graph (a) shows that an increase in the firm’s product demand will cause the labor demand curve to shift to the right, from $D_1$ to $D_2$. At the prevailing wage of $W_1$, the firm’s optimal level of employment would increase from $L_1$ to $L_2$. Graph (b) shows that the labor demand curve for an imperfectly competitive firm $D_1$ will lie to the left and be steeper than the demand curve for a competitive firm ($D_C$). At the prevailing wage of $W_1$, the imperfectly competitive firm will hire fewer workers ($L_1$) than the competitive firm ($L_C$). It will also expand employment by a smaller amount than would a perfectly competitive firm in response to a decrease in the wage.

**ii) Imperfect Competition in the Product Market:** The data in Table 1.16.1 and the derivation of the demand curve for labor assume the firm is only one among many firms operating in a perfectly competitive product market. What happens to the demand curve for labor if this firm is in an imperfectly competitive product market (such as monopolistic competition, oligopoly, or monopoly)?

The fact that price is greater than marginal revenue for the imperfectly competitive firm has two separate effects on its demand curve for labor. First, since $P$ is always greater than $MR$, the marginal revenue product ($MR MP_L$) of the last worker hired in a competitive firm (worker $L_C$ in graph b) will be more than that of the same worker in an imperfectly competitive firm (worker $L_i$). The second effect of imperfect
competition in the product market is to not only reduce the demand for labor but to also make the demand curve $D_f$ steeper relative to $D_C$.

**iii) The Market Demand Curve for Labor**

For many purposes it is important to know not only the individual firm’s demand curve for labor, but also the demand for labor on the part of all firms in the labor market. The labor market in question encompasses a local area, an industry, or the nation as a whole, depending on the type of labor being analyzed. The derivation of the market demand curve for labor is illustrated in Figure 1.16.3.

It is assumed there are $N$ individual perfectly competitive firms in an industry. Graphs (a) and (b) in Figure 4.4 show the labor demand curves $D_A$ and $D_B$ for two of these firms, Firm A and Firm B. At the wage of $W_1$ the demand for labor in each individual firm can be determined from its respective marginal revenue product schedule; employment in Firm A would be $L_{1A}$, in Firm B it would be $L_{1B}$, and so on for the other $N-2$ firms. The total demand for labor by all the firms in the market could then be found by adding up the employment demand of each individual firm – $L_{1A} + L_{1B} + \ldots + L_{1N} = L_{1M}$, shown as point $X$ in graph (c).

![Figure 1.16.3. Derivation of the Market Labor Demand Curve](image)

The lines $D_A$ and $D_B$ in graphs (a) and (b) show the labor demand curve for each individual firm. At the wage $W_1$, total employment in the market-graph (c) - is (point X). A fall in the wage from $W_1$ to $W_2$ in any one firm would cause a movement
down its $\text{MRP}_L$ schedule, increasing employment form $L_{1A}$ to $L_{2A}$ in Firm A, for example. If the wage falls to $W_2$ for all firms, however, the resulting expansion in employment and output will cause a decline in the price of the product, shifting each firm’s MRP schedule to the left, such as $D_A$ and $D_B$. At the wage $W_2$, therefore, total labor demand is (point Z). Connecting points X and Z yields the market labor demand curve, $D_M$.

This analysis shows that wages and employment are inversely related at the level of both the individual firm and the market. An important insight, however, is that a wage change isolated to only one firm will have a proportionately bigger impact on employment than if the wage change occurs in all the firms in the labor market.

### 1.17 Criticisms of the Theory of Labor Demand

The marginal productivity theory of labor demand outlined previously can predict both the optimal level of employment for a firm and how this employment level will change in reaction to various economic events. Five of these criticisms are briefly discussed here.

**i) Limits to Human Cognition:** One objection is that the information and computations necessary to operationalise the theory generally exceed the mental or cognitive ability of most employers and managers.

First, although managers may not consciously use marginal calculations, the decisions they reach must approximate those predicted by the theory if the firm is to survive in a competitive business world. Second, proponents argue that while managers may not be able to identify the marginal contribution of an individual worker or adjust employment one employee at a time as the theory presumes, they can identify the revenues and costs associated with particular lines of activity (e.g., the baggage-handling department or the night-shift) and they do adjust employment in these activities in light of their contributions to profit.

**ii) Nonmaximizing Behavior:** A second criticism of the marginal productivity theory deals with the assumption of profit maximization. The impetus driving the firm to make the calculations of marginal revenue product versus marginal cost of labor is the goal of maximizing profits. The critics of the theory argue, however, that business firms, particularly in oligopolistic markets or in corporations where ownership and
control are separated, are more accurately characterized as “satisfying” with respect to profit.

ii) Fixed Capital / Labor Proportions: A third criticism of the theory asserts that the nature of technology makes it impossible to derive a continuous marginal product (MP₁) schedule. The derivation of the marginal product schedule assumes that the fixed stock of capital is divisible in the sense that it can be “spread” among greater and greater numbers of workers as employment is increased. According to critics of the theory, however, many types of production processes require labor and capital in relatively fixed proportions.

iv) Increasing Returns to Labor: A forth criticism of the marginal productivity theory is that labor may be subject to increasing returns in the short run, not diminishing returns as the theory assumes. According to the law of diminishing returns, as a firm expands employment, the marginal product of labor should decline as the fixed stock of capital is spread over more workers. It is precisely this fact that causes the MRPₐ schedule and the labor demand curve to slope downward for a competitive firm.

v) Interdependence between the Wage and Worker Productivity: A final criticism of the marginal productivity theory concerns the relationship between the wages rate the firm pays and the level of productivity of its workers. The theory assumes that the marginal product schedule is determined solely by the technology of production, as represented by the production function in Equation 4.1 and the size of the firm’s capital stock. One important implication of this assumption is that, regardless of whether the firm pays $2 or $20 per hour for labor, the MRPₐ schedule will maintain its position and shape; that is, a change in the wage will cause the firm to move up or down the MRPₐ schedule, but the schedule itself will not change.

Despite these criticisms, the great majority of economists continue to subscribe to the marginal productivity theory for several reasons. First, most economists remain convinced that the objections outlined above do not invalidate marginal productivity theory. They argue that some objections (e.g., limited cognition) have little substantive merit, while others (e.g., increasing returns) can be adequately handled by expanding the theory to take into account additional real-world complications that the simple version of the theory neglects.
1.18. The Demand for Labor In The Long Run

The previous chapter derived the firm’s short-run demand curve for labor under the assumption that the amount of capital was fixed. In this section the theory is extended to cover the long run when both capital and labor are variable.

i) The Technology of Production: Isoquants

The goal of the firm is to produce the level of output that maximizes profits. To accomplish this, the firm must decide on the least-cost production method and in particular, on the appropriate combination of capital and labor. The decision is influenced by two considerations: the first is the constraints that technology places on the mix of capital and labor, and the second is the relative prices of the factor inputs. The technology of production is embodied in the firm’s production function. As discussed in the previous chapter, each firm has a production function of the form:

\[ Q = f(K, L), \quad \ldots \text{1.5} \]

This expresses the relationship between the level of capital and labor inputs and the maximum obtainable level of output, given the current state of technology.

![Figure 1.18.1 A Set of Isoquants](image)

The production function states, for example, that if \( K_1 \) amount of capital and \( L_1 \) amount of labor are used by the firm, the resulting level of output will be \( Q_1 \) (point A). Similarly, if capital and labor are increased to \( K_2 \) and \( L_2 \), respectively, output would increase to \( Q_2 \) (point B). A further increase to \( K_3 \) and \( L_3 \) would yield \( Q_3 \) (point C). The production function thus shows the relationship between increases in capital
and labor and increases in output, represented by the movement from point A, if $K_1$ units of capital and $L_1$ units of labor can produce $Q_1$ units of output, could any other combinations of capital and labor also produce $Q_1$? In general the answer is yes, as illustrated by $Q_1$, the curve that passes through point A. The curve is called an isoquant; it shows all the various combinations of capital and labor that are just able to produce a given level of output. The slope of an isoquant measures the marginal rate of technical substitution (MRTS) the rate at which labor is substituted for capital while keeping output constant. An important feature of isoquants is that they are convex to the origin.

In general, then, isoquants are convex, giving rise to a diminishing marginal rate of technical substitution (MRTS). The marginal rate of technical substitution measures the additional amount of capital that is required if labor is changed by one unit and output is kept constant. The MRTS is given by the negative of the slope of the isoquant. Moving down an isoquant, the MRTS becomes progressively smaller.

ii) The Equilibrium Level of Employment

The isoquants $Q_1$, $Q_2$, and $Q_3$ are combined with the isocost lines $AB$, $CD$, and $EF$ from Figure 4.6. To determine its optimal level of employment, the firm has two related decisions or calculations to make. The first decision concerns the optimal level of production for the firm. To maximize profits, should it produce $Q_1$, $Q_2$, or $Q_3$? Given the factor prices of $W_1$ and $R_1$, microeconomic theory shows that the profit-maximizing level of output for a competitive firm is where the product price ($P$) equals the marginal cost of production (MC). For the sake of exposition, assume that $P = MC$ at the output level of $Q_2$. 

![Diagram of isoquants and isocost lines](image)
Figure 1.18.2. The Profit-Maximizing Combination of Capital and Labor

The tangency between the isocost line CD and the isoquant $Q_2$ at point X. At point X the firm minimizes the cost of production, since no other combination of capital and labor would allow it to reach a lower isocost line.

At the tangency of the isoquant $Q_2$ and the isocost line CD, the slopes of the two lines are just equal. Since the slope of the isocost line is given by the ratio of factor prices $W/R$ (neglecting the minus sign) and the (negative) slope of the isoquant is given by the marginal rate of technical substitution, MRTS, the minimum-cost combination of capital and labor is given by the following equilibrium condition:

$$MRTS = \frac{W}{R}$$

Using this equilibrium condition, the firm would minimize cost by employing $L_1$ workers and $K_1$ amount of capital.

iii) The Long-Run Demand Curve for Labor

In the long run, the rise in the wage to $W_2$ provides an incentive for the firm to reduce its employment even further by substituting capital for labor. This was shown by the substitution effect as labor demand declined from $L_2$ to $L_3$. In Figure 4.6., at $W_2$ the short-run demand for labor is $L_2$ (point Y), but in the long run the demand for labor is only $L_3$ (point Z). Connecting points X and Z yields the long-run demand curve for labor $D_L$. It shows that in response to the rise in the wage from $W_1$ to $W_2$, the demand for labor in the long run declines from $L_1$ (point X) to $L_3$ (point Z). This decline in employment is made up of two components: the short-run decrease from $L_1$ to $L_2$ because of the scale effect, and the additional decline from $L_2$ to $L_3$ because of the substitution effect. Consideration of both scale and substitution effects is crucial for projecting employment into the future.
The most important point to notice is that the long-run demand curve is more elastic than the short-run demand curve. In the short-run, a firm’s ability to adjust to a wage increase is limited because it is locked into a fixed amount of capital. In the long run, however, the ability to change not only the level of production but also the amount of capital provides the firm with much more flexibility in adapting to higher or lower wages, resulting in a demand curve for labor that is more sensitive to changes in wage costs in the long run than in the short run.

**iv) Technological Change and Labor Demand**

Over time, the demand for labor is influenced not only by changes in relative factor prices but also by changes in technology. The impact of technological change on the demand for labor is best illustrated in terms of its effect on employment within an industry rather than within a single firm. Assume that each firm in the industry has an identical production function of the form $Q = (K, L)$ that expresses the relationship between capital and labor inputs and the maximum amount of output that can be obtained, given the current state of technology. This production function can be used to generate a series of isoquants, one of which is pictured in Figure 5.8 as $Q_{1, t}$. It represents a level of industry output of $Q_1$ produced in the current time period $t$. Given the ratio of factor prices $W_1, R_1$ in the industry and the resulting isocost line AB, firms minimize costs by producing $Q_{1, 1}$ with $K_1$ units of capital and $L_1$ units of labor, shown as point X.

Technological change has a two-pronged effect on the demand for labor. The initial effect is to reduce the demand for labor as better technology allows firms to
produce a given level of output with fewer workers. The second effect is that improved technology results in lower production costs and, thus, lower product prices, increased sales, and a greater demand for labour.

![Figure 1.18.4. The Effect of Technological Change on Labor Demand](image)

Technological change shifts the isoquant $Q_{1,t}$ inwards to $Q_{1,t+1}$, illustrating that the same $Q_1$ level of output can now be produced with less capital and labor (compare points X and Y). The lower cost of production which makes possible result in a lower price and increase in sales to $Q_{2,t+1}$. The net result is an increase in the demand for capital and labor from point X to Z.

1.19. Concepts of Supply for Labour Markets

How many people are willing and able to work in different industries and occupations? This question refers to the supply of labour.

A) The labour supply curve

The labour supply curve for any industry or occupation will be upward sloping. This is because, as wages rise, other workers enter this industry attracted by the incentive of higher rewards. They may have moved from other industries or they may not have previously held a job, such as housewives or the unemployed. The extent to which a rise in the prevailing wage or salary in an occupation leads to an expansion in the supply of labour depends on the elasticity of labour supply.
Fig.19.1. the labour supply curve

B) Key factors affecting labour supply

The supply of labour to a particular occupation is influenced by a range of monetary and non-monetary considerations.

1. The **real wage rate on offer in the industry itself** – higher wages raise the prospect of increased factor rewards and should boost the number of people willing and able to work.

2. **Overtime**: Opportunities to boost earnings come through overtime payments, productivity-related pay schemes, and share option schemes and financial discounts for employees in a certain job.

3. **Substitute occupations**: The real wage rate on offer in competing jobs is another factor because this affects the wage and earnings differential that exists between two or more occupations. So for example an increase in the relative earnings available to trained plumbers and electricians may cause some people to switch their jobs. In recent times, the British media has been fond of stories of people leaving jobs in academia (including high level university research) and moving in household services because the basic rates of pay and potential earnings are so much greater.

4. **Barriers to entry**: Artificial limits to an industry’s labour supply (e.g. through the introduction of minimum entry requirements or other legal barriers to entry) can restrict labour supply and force average pay and salary levels higher – this is
particularly the case in professions such as legal services and medicine where there are strict “entry criteria” to the professions. Indeed these labour market barriers are partly designed to keep pay levels high as well as being methods of maintaining the quality of people entering these professions.

C) Elasticity of labour supply

The elasticity of labour supply to an occupation measures the extent to which labour supply responds to a change in the wage rate in a given time period. In low-skilled occupations we expect labour supply to be elastic. This means that a pool of readily available labour is employable at a fairly low market wage rate. Where jobs require specific skills and lengthy periods of training, the labour supply will be more inelastic. It is hard to expand the workforce in a short period of time when demand for workers has increased.

In many professions there are artificial barriers to the entry of workers. Examples include Law, Accountancy and Medicine. The need for high level educational qualifications makes the supply of newly qualified entrants to these occupations quite inelastic in the short run and is one reason why these workers may earn a higher real wage than average salaries.

Fig.1.19.2 Elasticity of labour supply

D) The Work-Leisure Trade Off

Once somebody has entered the labour force how many hours will they choose to work? For many people, the hours they work are fixed by their employers and they have little or no flexibility in the total number of hours they supply. But the majority
of workers have an opportunity at some point to work additional hours, or perhaps switch from a full-time job to a part-time position. And the official data probably understates the true number of people who are “moonlighting” and working in a second or third job because of the rapid expansion of the shadow economy which had encouraged the expansion of a shadow labour force.

Economic theory would suggest that the real wage is a key determinant of the number of hours. The real wage is the money wage rate adjusted for changes in the price level and it measures the quantity of goods and services that can be bought from each hour worked. An increase in the real wage on offer in a job should lead to someone supplying more hours of work over a given period of time, although there is the possibility that further increases in the going wage rate might have little effect on an individual’s labour supply. Indeed, there is the possibility of a backward-bending individual labour supply curve. This is illustrated in the next diagram.

![Fig. 1.19.3. Work-Leisure Trade Off](image)

Two distinct individual labour supply curves are shown. In the first curve, higher real wages do lead to an increase in the number of extra hours supplied, although the rate at which the individual is prepared to give up their leisure time and work longer hours diminishes as the real wage rises. But the labour supply curve meets the standard prediction that higher wages attract people to work longer hours. In the second curve, for most of the range of real wages, the same prediction holds true, but when as real wages step upwards, eventually an individual may choose to actually work fewer hours (ceteris paribus) giving us what is sometimes termed a **backward bending** labour supply curve.

1.20. Short-Run Supply
In determining how much output to supply, the firm's objective is to maximize profits subject to two constraints: the consumers' demand for the firm's product and the firm's costs of production. Consumer demand determines the price at which a perfectly competitive firm may sell its output. The costs of production are determined by the technology the firm uses. The firm's profits are the difference between its total revenues and total costs. **Total revenue and marginal revenue.** A firm's **total revenue** is the dollar amount that the firm earns from sales of its output. If a firm decides to supply the amount \( Q \) of output and the price in the perfectly competitive market is \( P \), the firm's total revenue is

\[
P \times Q \quad \text{.......................... 1.7}
\]

A firm's **marginal revenue** is the dollar amount by which its total revenue changes in response to a 1-unit change in the firm's output. If a firm in a perfectly competitive market increases its output by 1 unit, it increases its total revenue by \( P \times 1 = P \). Hence, in a perfectly competitive market, the firm's marginal revenue is just equal to the market price, \( P \).

**Short-run profit maximization.** A firm maximizes its profits by choosing to supply the level of output where its marginal revenue equals its marginal cost. When marginal revenue exceeds marginal cost, the firm can earn greater profits by increasing its output. When marginal revenue is below marginal cost, the firm is losing money, and consequently, it must reduce its output. Profits are therefore maximized when the firm chooses the level of output where its marginal revenue equals its marginal cost.

To illustrate the concept of profit maximization, consider again the example of the firm that produces a single good using only two inputs, labor and capital. In the short-run, the amount of capital the firm uses is fixed at 1 unit. Assume that this firm is competing with many other firms in a perfectly competitive market. The price of the good sold in this market is $10 per unit. The firm's costs of production for different levels of output are the same as those considered in the numerical examples of the previous section, Theory of the Firm. These costs, along with the firm's total and marginal revenues and its profits for different levels of output, are reported in Table 1.

**Table No 1.20.1. Firm Output, Revenues, Costs, and Profits**

<table>
<thead>
<tr>
<th>Total product</th>
<th>Total revenue</th>
<th>Marginal revenue</th>
<th>Total cost</th>
<th>Average total cost</th>
<th>Marginal cost</th>
<th>Firm profits</th>
</tr>
</thead>
</table>

60
Because the price of the good is $10, the firm's total revenue is $10 \times \text{total products}. The firm's marginal revenue is equal to the price of $10 per unit of total product. Notice that the marginal cost of the 29th unit produced is $10, while the marginal revenue from the 29th unit is also $10. Hence, the firm maximizes its profits by choosing to produce exactly 29 units of output. In choosing to produce 29 units of output, the firm earns $90 (\$290 - 200) in profits.

**Graphical illustration of short-run profit maximization.** The marginal revenue, marginal cost, and average total cost figures reported in the numerical example of Table 1 are shown in the graph in Figure 1.21.1.

![Graphical illustration of short-run profit maximization](https://example.com/graph.png)

**Figure 1.20.1. The firm's short-run, profit-maximizing decision**

The firm's equilibrium supply of 29 units of output is determined by the intersection of the marginal cost and marginal revenue curves. When the firm produces 29 units of output...
output, its average total cost is found to be $6.90 (point \( c \) on the average total cost curve in Figure 1.20.1). The firm's profits are therefore given by the area of the shaded rectangle labeled \( abed \).

The area of this rectangle is easily calculated. The length of the rectangle is 29. The width is the difference between the market price (the firm's marginal revenue), $10, and the firm's average cost of producing 29 units, $6.90. This difference is \((10 \times 6.90) = 3.10\). Hence, the area of rectangle \( abed \) is \( 29 \times 3.1 = 90 \), the same amount reported in Table 1. In general, the firm makes positive profits whenever its average total cost curve lies below its marginal revenue curve. Short-run losses and the shut-down decision. When the firm's average total cost curve lies above its marginal revenue curve at the profit maximizing level of output, the firm is experiencing losses and will have to consider whether to shut down its operations. In making this determination, the firm will take into account its average variable costs rather than its average total costs. The difference between the firm's average total costs and its average variable costs is its average fixed costs. The firm must pay its fixed costs (for example, its purchases of factory space and equipment), regardless of whether it produces any output. Hence, the firm's fixed costs are considered sunk costs and will not have any bearing on whether the firm decides to shut down. Thus, the firm will focus on its average variable costs in determining whether to shut down.

1.21. The Determination of Wages

In this chapter demand and supply are brought together in order to analyze the process of wage determination. Wage determination is at the core of labor economics, since the structure of wages and the change in wages over time are responsible for efficiently allocating labor and maintaining a balance between demand and supply in the market. The chapter begins with focusing on the determination of wages in perfectly competitive markets. The two major issues of concern are how market forces determine an equilibrium wage rate for a particular type of labor and how the market responds to a condition of disequilibrium caused by a change in demand or supply.

i) Wage Determination in Competitive Market

The starting point in developing the theory of wages is the model of perfect competition. This model best illustrates how market forces, operating through labour
demand and labour supply, interact to determine the level of wages and employment.

These are five key assumptions in the model of perfect competition;

1) Business firm seek to maximize dollar profit, and workers seek to maximize utility.
2) Workers and firm have perfect information about wages and job opportunities in the labour market.
3) Workers in the labour market are identical with respect to skills and productivity; jobs offered by firms are identical with respect to working conditions and others nonwage attributes.
4) The labour market is composed of many individual firms on the buyer’s side of the market and many workers on the seller side. The workers do not belong to unions, and firms do not collude.
5) All jobs in the labour market are open to competition by workers, no institutional barriers (for instance, seniority provisions and internal hiring rules) inhibit of workers from one job to another. Cost of mobility is zero.

ii) The Law of One Wage

Given the assumptions, the perfectly competitive model given rise to one of the most important prediction in labour economics the Law of One Wage. The law of one wage state that in the competitive labour market the competition between buyers and sellers will result in the establish in the market of one uniform “going” wage rate that will be paid by all the firms and received by all the workers. The wage rate is determined by the interaction of demand and supply in overall market. The law of one wage is illustrate.

![Figure 1.21.1 The Determination of Wages in A Perfectly Competitive Market](image-url)
If the labor market-graph (a) is perfectly competitive, the equilibrium wage will be $W_E$, where demand and supply are equal. At a wage of $W_1$, demand (point A) is greater than supply (point B), and competition will force the wage up. At a wage of $W_2$, there is an excess supply of labor (point C-point D) and the wage will fall until $W_E$ are reached. Given the wage $W_E$ in the market, the individual firm-graph (b) can hire all the labor it wants at that wage, as illustrated by its perfectly elastic supply curve $S_1$. If its pays a wage less than $W_E$ (point G), it will lose all its workers; if it pays more than $W_E$, the competitive firm will lose profits and be forced out of business.

Given the assumption of perfect information, maximizing behavior, and free mobility, competitive pressure will cause both firms to ultimately change their rates of pay to $W_E$. At the wage of $W_1$ the supply of labor to the low-wage firm will be zero, shown as point G in graph (b). All that firm’s workers would quit and seek employment at other firms that are paying more for the same job. To attract and keep its workforce, the low-wage firm would be forced by the pressure of labor mobility to raise its wage to $W_E$.

1.22. Market Imperfections

It is worthwhile to pursue the example of secretaries further and ask why the labor market did not give rise to the predicted one wage. One possible reason is that the law of one wage describes a situation of long-run equilibrium, while real-world labor markets are in a constant state of change. A second reason is that the market for secretaries violates one or more of the five assumptions of the perfectly competitive model. A factor or circumstance that causes a market to diverge from the perfectly competitive ideal is called a market imperfection.

a) Nonmaximizing Behavior

The perfectly competitive model assumes that firms always act to maximize profits. Given this, a firm will never pay workers a wage higher than the minimum necessary to attract a sufficient supply of labor, since to do so would raise labor costs and reduce profits. This motivation to maximize profits is reinforced not only by the quest for pecuniary gain on the part of the owners of the firm, but also the threat of bankruptcy in the long run if the firm allows its labor costs to exceed those of its rivals in a highly competitive industry.

b) Imperfect Information
Another departure from the perfectly competitive model is imperfect information, which can lead to dispersion in wage in two ways. The first has to do with the job search process. If workers in the General or Legal Secretary occupations knew the wages paid by all firms in any one location, they would flock to the high-wage firms and shun the low-wage firms, driving wages to equality in the market just as the theory predicts. As emphasized by Nobel laureate George Stigler, however, information about wages, working condition, and job openings is not announced to workers like prices at an auction; rather, acquiring information about these factors requires a process of job search by workers as they sequentially contact one employer and then another in the labor market.

c) **Heterogeneity of Workers and Jobs**

Competitive theory predicts that a single going wage will prevail in the market for a set of homogeneous jobs and workers. It is reasonably certain; however, that workers and jobs in the secretary’s market are heterogeneous or “differentiated”, introducing an imperfection into the market. One source of heterogeneity is with respect to the supply of labor offered to firms. Despite the fact that our empirical example examines earnings for two narrowly defined occupations, not all workers classified as General Secretaries or Legal Secretaries are likely to be of the same skill and productivity level, reflected by differences among them in years of education, experience, job skills, and innate ability.

d) **Unions and Employer Collusion**

The assumption that neither employers nor workers collude or act as a collective unit in their operation of the market could be violated in a number of ways. For example, the presence of unions violates this assumption. Through a union, the many workers act as if they are one, providing the workers some monopoly power in the sale of their labor. Since clerical workers are not highly unionized as an occupation, this is not likely to be a major source of the observed wage dispersion.

e) **Costly Mobility**
When evaluating a national market for any occupation, the costs of mobility clearly come into play. It is not costless to pack up and move from Atlanta to Chicago in search of the highest secretarial wage. One could argue, however, that the availability of secretarial jobs at one geographic location is such that mobility across firms is not likely to be much of an obstacle to competition. Another source of mobility cost is the presence of strict seniority provisions or in-house promotion rules.

1.23. Unemployment

There is little Question that he unemployment are has been and continuous to be one of the most serious and pervasive economic problems in the labour market. Low wages, discrimination, substandard working conditions and other types of labour market pathologies are all threats to the economic security and well being of significant numbers of workers, but few approach the impact on unemployment as cause of both economic hardship and wasted resources.

So far assumed that the labour force might be measured, albeit imprecisely, by counting the number people at work. However there are always persons who are on layoff from their jobs, who have lost their jobs and who are looking for work, who have quiets their jobs and are looking for new work, and who are entering or reentering the labour force but have not found the job. These people constitute the Unemployed, and unemployed are by official definition a part of labour force.

1.23.0. Composition of Labour Force

![Diagram of Labour Force Composition]

i) The Measurement Of Unemployment
The concept of unemployment is intuitively easy to understand—unemployment occurs when a person doesn’t have work but wants it. The definition of unemployment is important because it has a large bearing on how much joblessness is reported in the official statistics and, thus, on people’s evaluation of the economy’s performance and the social and economic costs imposed by unemployment.

The civilian noninstitutional population includes persons 16 years of age or older who are not residents or a prison, mental hospital, or other institution, and are not in the armed forces. The civilian non-institutionalized population is then broken down into two groups: those who are employed or unemployed are counted as “in the labor force”; those who do not have jobs and have not looked for one are counted as “not in the labor force.” To be classified as “employed” a person must have worked in the survey week for at least one hour for pay, or for a minimum of 15 hours without pay in a family-run business. A person who has a job but is temporarily absent from work due to vacation, illness, bad weather, or a strike is also counted as employed. To be counted as “unemployed”, a person must satisfy three criteria: (1) he or she is without a job, (2) he or she would be able to take a job if it was offered, and (3) he or she has looked for work in the preceding four weeks. The unemployment rate is then calculated as the number of persons unemployed divided by the number of persons in the labor force.

ii) Types of Unemployment

Economics usually distinguish between three different types of unemployment: frictional, structural, and cyclical.

a) Frictional Unemployment

Frictional unemployment arises because of the constant flow of people between jobs and into and out of the labor force, because information in the job market is imperfect, and because it takes time for unemployed workers and employers with job vacancies to find each other. Even when the demand and supply situation in the labor market is in balance, some unemployment will always occur as workers and firms search for the best matches.

b) Structural Unemployment

Structural Unemployment arises from a basic mismatch between the types of jobs that are available and the types of people who are seeking jobs. This mismatch
may be related to skill, education, geographical area, or age. For example, structural unemployment occurs if the job openings in the economy are in skilled occupations, such as computer programmer, aerospace engineer, or office manager, while the persons seeking jobs are either young people without much education or experience or adults who have been laid off from unskilled jobs such as truck driver.

c) Cyclical Unemployment

Cyclical Unemployment (sometimes called demand-deficient unemployment) is the result of insufficient aggregate demand in the economy to generate enough jobs for those who seek one. With frictional and structural unemployment, the problem is inability to match job openings with job seekers. With cyclical unemployment, there are not enough jobs to go around. Cyclical unemployment is closely linked to the movement to the economy up and down the business cycle. On the upswing of the cycle, the unemployment rate gradually declines as growth in spending and production in the economy induces firms to increase employment, both by calling back laid-off workers and hiring new employees...

![Graph of job vacancies and number of unemployed individuals]

**Figure 1.23.1. Distinguishing Between Types of Unemployment**

Along the 45° line the number of job vacancies equals the number of job seekers, which is one common definition of full employment. An increase in frictional or structural unemployment is represented by a shift in the Beveridge curve from $B_1$ to $B_2$ (point J to K); an increase in cyclical unemployment is represented by a movement down a particular Beveridge curve, such as from point J to M on curve $B_1$.

iii) Causes of Unemployment

The distinction between frictional, structural, and cyclical unemployment provides a number of insights into the causes of unemployment. Further insight can be
gained by examining three of the most important theories of frictional, structural, and cyclical unemployment: job search, rigid wages, and efficiency wages.

a) Job Search

The process of job search provides an important theoretical explanation for the existence of unemployment. Regardless of whether the person seeking a job is a new entrant to the labor force, a victim of a plant closing, or a worker who wants to change jobs, imperfect information forces the job seeker to go from firm to firm in search of job openings and information regarding the rates of pay, working conditions, and so on. For young workers who are already employed, the search for a better job involves a spell of unemployment only about 50 percent of the time. In this situation, the worker is usually able to search for a new job during off-work hours and, after finding a satisfactory job, make the switch with no intervening spell of joblessness.

b) Rigid Wages

In addition to job search, the existence of downwardly inflexible money wage rates in the labor market offers a second major explanation for unemployment. In the theory of job search, unemployment arises not so much from a lack of jobs, but from a lack of information about where to find these jobs and how much they pay. Unemployment caused by rigid wages is fundamentally different. The basic problem is not imperfect information but an insufficient number of jobs for the number of people who want one.

c) Efficiency Wages

A third and relatively recent explanation for unemployment is based on efficiency wage theory. The key assumption behind this theory is that employee work effort, or “efficiency”, is a positive function of the wage rate – the higher the wage the firm pays, the harder its employees work (although probably at a diminishing rate). This idea has a large element of common sense, but leads to some unexpected consequences. One of them is that a firm can actually make more profit by paying its employees a wage higher than that mandated by demand and supply in the market. A second result follows from the first: Even with flexible wage rates, a competitive labor market is likely to experience some amount of involuntary unemployment.

Summary
In the present chapter we have reviewed the industrial policy and development during the plan period. It was observed that though India started with a bound industrial strategy in the early years of planning, the progress slackened in the eighties. This necessitated the introduction of reforms not only for the industrial sector but also for all the sectors of the economy.

Over the years the progress and impact of the reforms has been an important subject of research. In particular the impact on labour has been an issue of debate in different policy circles. The different labour economic concepts that are analyzed in the literature also have been reviewed in the present chapter. These include, the labour demand determinants, labour curve, labour supply issues and wage determination in perfectly competitive labour market. The review of the two issues has shown that these in scope for study on the impact on industrial labour of the new economic reforms. The factors that are to be considered for the studies on impact on labour are presented in the chapter. All these issues of reforms and labour will be examined in the context of industrial labour in Kolhapur.

References

