CHAPTER IV

NATURE AND EXTENT OF UNEMPLOYMENT IN JORDAN

4.1 Conceptual Framework (Employment/Unemployment)

The nature and extent of unemployment indicate the macro-economic health of an economy. Hence it is necessary to know its meaning, how it is measured and the limitations of data so as to determine its role in policy formation.

Labour force comprises all those who are employed and unemployed. Unemployment rate therefore is the percentage of labour force that is unemployed. The dimension of unemployment problem goes beyond its conception as lack of employment opportunities, underutilization and low productivity of people. The employment problems in the West which came into limelight during the Great Depression of 1930's and of 1950's and 1990's, are different in their origin, nature and solution. Hence it is necessary to clarify the meaning of the two terms: employment and unemployment.

John Maynard Keynes is credited with developing the concept of employment. His celebrated masterpiece viz., 'General Theory of Employment' made him the prophet of 'Full Employment' and of a stable drive towards growth with maximum public welfare.

The emphasis on employment problems and policies came from two main directions; the economic and the social.[1]

The economists focused their attention to the business cycles and consequent fluctuations in the volume of employment,

trade and national output, while the social theorists advanced the cause of full employment by emphasizing the 'right to work' and the social evils of unemployment. Lord Beveridge[2] illustrates the social approach as idleness is not the same as want, but a separate evil which men do not escape by having an income.

> United Nations defined the term as follows : "For the practical purpose, full employment may be considered as a situation in which employment cannot be increased by an increase in effective demand and unemployment does not exceed the minimum allowances caused by the effect of frictional and seasonal factors"[3].
>
> Keynes states : "Full employment is a situation in which aggregate employment is inelastic in response to an increase in the effective demand for its output"[4].
>
> The International Labour Office in its study asserts that, "full employment exists when every adult who wants employment can obtain it at current wage rates and working hours. When working hours are no shorter than the workers prefer at current wage rates, when wage rates are not so low as to constitute exploitation of workers and when a worker who loses his job (due

> to lay-off/closure/retrenchment) could find new employment within a short period not exceeding three months. Because of such frictions, full employment will have a marginal unemployment to the extent of 3 to 4 percent of the labour force".[5]

This definition seems to be the most specific, practical and convenient for deciding appropriate employment strategies and policies.

Full employment, therefore is a state of economy where all persons desiring to work are able to find employment within a reasonable time at the prevailing rates of payment, working hours and working conditions, and in positions reasonably in line with their aptitude, abilities and occupational interest.[6]

The definitions, so far discussed, are to a great extent applicable and relevant only in the case of industrial nations, which normally have a maximum unemployment rate of 2 to 7 percent. But in case of backward economies of Latin America, Africa, Asia and the so called low developed countries, the problem of unemployment is not only chronic but is the most critical and serious, not only affecting the standard of living but also the living itself. Around 20 to 40 percent of the active and willing men in the labour force of such countries remain jobless for frustratingly prolonged and prime periods of their active life. Jordan is no exception to this. Poverty, hunger, deaths and problems of disgust, desparation, deprivation and dehumanization are on massive scale in these economies. These

are some of the terrible consequences of unutilization and underutilization of human resources for productive purposes. Thus unemployment brings low national product on the one hand and mass poverty on the other. The problem of unemployment in less developed countries is therefore not a problem of academic frivolity and semantic pedagogy, it is a problem of living itself.

Another approach to define and explain the concept of unemployment is provided by Louis Levine. [7]

> He states, "The term unemployment can include a variety of concepts. It can have a condition concept - that of being without a job, it can have an 'activity concept' that of actively seeking work, it can have a 'psychological concept' that of desiring a job, it can have a 'physical concept' that of being able to do a job or it can have a combination of these concepts. Thus, the definition of unemployment which has come to be widely accepted is the number of persons able to work, willing to work or seeking employment but unable to find jobs."[8]

There are two aspects of unemployment. The first is actual employment which is below full employment, and the second is the realised excess supply of labour[9].

According to John Creedy and Barry Thomas, unemployment relates to those who are not at work, but who want or seek a job, and are capable of work and are also available for work[10]. In broad terms, it relates to the difference between the demand for and the supply of labour.

The sum and substance of the concept can be concluded by quoting the definition from Pearce Dictionary; "unemployment is the stock of all those individuals who are not in employment and who are either in the process of moving to a new job or who are unable to find work at the prevailing wage rate. The unemployment may be classified by cause according to a modern Keynesian view such as frictional, structural, seasonal, demand - deficient, cyclical growth gap and technological unemployment or by distinction between voluntary and involuntary unemployment or by characteristics according to a neo-classical view (search, precautionary and speculative unemployment)"[11]. This definition covers all the revelant aspects, types and issues of unemployment.

4.2 Types of Unemployment

It is useful to inquire more specifically into the causes of unemployment giving rise to different types of unemployment.

During 1960 s and 1970 s the problem of unemployment was viewed as a result of failing to create sufficient jobs in economy. However during 1980 s and 1990 s especially in the case of most of the developing economies, it was also the result of exogenous factors, such as worsening balance of payments, debt problem and some policy measures suggested by International Monetary Fund. All these resulted in a decline in real wages and employment. Thus employment problem in developing economies is unique and many times requires policy prescriptions which are very different from those of the developed economies. The main reasons for this are: i) unemployment in developing economies can be chronic, ii) causes of unemployment being very complex, the Kaynesian policies to expand aggregate demand cannot be the only solution to the problem and iii) in developing countries unemployment is closely related to poverty. It is therefore necessary to understand the types of unemployment which can simultaneously exist in an economy especially a developing one.

1) Technological Unemployment

When innovation takes the form of more productive machinery, automation or other labour saving devices, it means that the work/production is attained by fewer man-hours of labour. The workers displaced by machinery on account of

mechanization and rationalization tend to be absorbed by rising employment in new or expanding industries. Particular skills may be rendered obsolete. Hence an occupational adjustment is required. For example, handloom operators and skilled artisans of the famous Bengal Muslin of Dacca city lost their earning because of the onslaught of the modern textile mills. Similarly, old cotton spinning mills are being closed down in India because of the competition created by the highly advanced textile mills and the synthetic fibre technology. Television sets with valves have become outdated due to the advancement of electronic circuit. Information technology, telecommunications, computers etc. have brought sizable reduction in human labour involved in accounting, data processing, filing, despatching of messages, courier service etc[12].

2) Seasonal Unemployment

A large number of farm workers are required in the harvesting season, but they lose their jobs in agricultural off-seasons. Trading has been seasonal since markets respond to the apparel needs of different seasons, e.g., woolen garments, summer clothing, sportswear, hosiery products. Production of umbrellas, rainyseason plastic suits, canning also require seasonal labour. Retail trades also have booming and receding turnovers during festival and off-festive months. The workers therefore lose their jobs in slack seasons.

3) Casual Unemployment

In construction industry, road building, small and minor irrigation projects and docks, workers are employed temporarily and casually. As soon as the work is finished they lose their jobs.

4) Frictional Unemployment

Frictional unemployment exists in the labour market when not all the employment skeers have yet found or accepted and not all employers have yet filled job vacancies. This happens because people continuously (i) quit present jobs and seek new ones (ii) enter the labour force for the first time to seek jobs (iii) move from one job to another (iv) and reenter the labour force after periods of absence. Similarly employers also search for replacements for those who have left jobs or retired. They might also reduce the work force in the hope of finding better workers or might employ additional workers due to expansion in their economic activities. Because of all these, Frictional unemployment can exist in an economy even if aggregate demand is sufficiently high to employ all the labour force.

5) Structural Unemployment

Structural unemployment has many features of frictional unemployment. The main distinguishing feature however is that such unemployment is caused by changes in the composition of either the demand for or supply of labour. It can therefore take the form of a mismatch between skills needed for jobs and type

of skill possessed by a worker or a geographical mismatch between the location of job and job seekers. For example, if some coal mines in Bihar in India are depleted, the pockets of unemployment in that region would continue to exist for a long period because of a lack of economic opportunities. Over and above this human and sentimental attachments to communities, tribes, culture also make people reluctant to move geographically. In case of Jordan, the native tribals, nomads and Bedouins are reluctant to migrate to the highly industrialised areas surrounding the capital city of Aman. Frictional and structural unemployment in Jordan occurs due to sudden, radical shifts from tribal economy to agricultural economy, traditional agriculture to new technological agriculture or from agricultural economy to industrialized economy.

6) Natural Rate of Unemployment

One of the characteristics of any dynamic economy is the changes in composition of aggregate demand. Hence the above mentioned two types of unemployment, namely, frictional and structural can exist even if the level of aggregate demand is sufficiently high to absorb the entire labour force. The concept of full employment discussed above can be understood as that aggregate unemployment rate which is consistent with natural rate of unemployment. Thus both these concepts of natural rate of unemployment and full employment indicate that even with sufficient job vacancies there would never be a zero unemployment rate.

7) **Cyclical Unemployment**

Cyclical business fluctuations of boom and recession bring growth and reduction in the volume of employment. In a depressing investment climate, workers are either retrenched or not in demand. Postwar recession also causes large scale retrenchments in government and private sectors.

8) **Demographic Unemployment**

The countries which have very high growth rate of population, and a high inflow of refugees, tend to have an excess supply of labour, outnumbering the limited demand for labour.

Some countries have secular unemployment due to continuous and chronic population pressure. Most of the South East Asian, African, Latin American and Sub-continental countries like India and China are facing the problem of chronic unemployment. Besides the above discussed unemployment there are some other forms of underutilization of labour as mentioned below.

- **Open Unemployment:-** It can be both voluntary and involuntary. Voluntary unemployment can be of the people who exclude themselves from some jobs due to some support other than employment. The unemployment among educated during 1960's and 1970 s is an example for this type. The unemployment can be involuntary, i.e, people are willing to work but are unable to get employment. It is argued that during 1980 s this type of unemployment prevailed which was due to slow growth and deficient demand.

- **Underemployment:-** Underemployed are those who are working less than they would like to work.

- **Disguised Underemployment:-** Many people work on a full time basis, though their work requires only part time services or in some extreme cases the marginal productivity of such people is either zero or negative.

- **Hidden Unemployment:-** This type of employment occurs when people are engaged in pursuing education because of a lack of job opportunities, or women are engaged in housekeeping because of certain social norms of behaviour.

- **Unproductive:-** In the absence of complementory resources, if people have to work for longer hours to get the basic minimum for life, such employment may be termed "unproductive".

4.3 Problems Related to Measurement of Unemployment

Measuring the volume of unemployment is a difficult task. In the developing countries some of the problems are: budget-constraints, ignorance of rules, illiteracy, lack of social/economic awareness and inadequate infrastructure facilities to reach remote hamlets in the interior and backward rural and tribal areas. International comparison of unemployment becomes difficult as different countries adopt different methods of measurement of unemployment.

The number of workers classfied as unemployed is usually derived from either of the two broad sources[13]. First, administrative procedures relating to unemployment benefit and social security under which unemployed workers are required to register if they are to receive appropriate state payments. This method is adopted only in few industrially advanced countries where unemployment insurance is guaranteed by the state. Secondly, census and sample surveys where the labour market status of the individual is either self-assessed, or is based on a judgement made by an interviewer or is inferred from the answers of the respondents including the available records of Employment Exchanges.

As noted above the problem with using data derived from administrative procedures is that such measurement depends on the term of these procedures and the regulations under which they operate. In many countries, the conclusions regarding unemployment are based on the sample survey data[14]. The problem with this technique is that there is a possibility of sampling error as such surveys are not based on complete enumeration.

The second source of unemployment data is the statistics of insured unemployed labour. These statistics exclude jobless workers from industries and firms not covered by the unemployment Insurance programme. In most of the Less Developed Countries, there is no provision for unemployment insurance, therefore the problem of measurement of unemployment becomes a bit difficult. However, the main difficulty is about conducting the gigantic work of census data collection itself.

There are other complications in the computation of unemployment of the following kinds.

i) Some men have a job but do not report at work.

ii) Some are able and willing, but are not looking for a job[15].

The United States households census in 1992 considered all those individuals who are neither employed nor are they actively seeking jobs as nonparticipants and counted them outside the labour force[16]. Following the guidelines of International Labour Organisation, industrial countries have adopted the procedure of United States measurement techniques. International comparison of unemployment among developed and developing nations is possible due to publication of the employment data of the member countries of the Unites Nations.

One of the main limitations of measurement is that it does not distinguish between people who are unemployed over short spell of time and those who are unemployed over long periods. Though unemployment is a stock concept, its size is determined by the rate of inflow into unemployment and the length of time unemployed individuals remain in the stock, i.e., duration of unemployment. Thus the concept of unemployment has two dimensions: a) Stock and b) Flow. The pool of unemployed persons does not consist of the same individuals from month to month . In the older stock of previously registered unemployed, new additions/subtraction may take place by the fresh increase/decrease in labour force.

In such a situation it is likely that the unemployment rate may remain constant even though specific people in the unemployment 'pool' may change or unemployment rate may change due to several distinct forces affecting outflow and inflow of people in the pool. Stock flow analysis is useful in studying the nature of unemployment problem and suggesting remedies. Rapid turnover of unemployed, i.e., large flows relative to the stock, indicates a need for better jobs while long durations indicate a need for more jobs in the economy. The unemployment data however does not give the specifications regarding stock and flow of unemployed. Empirical studies suggest that generally unemployment pool consists of relatively few people having long spells of unemployment. However, unless one is clear about labour turnover, it is difficult to suggest policies to tackle the problem.

To sum up, the measurement of unemployment is not an easy task in both developed and developing nations. Jordan is not an exception to this. Nontheless the information on such a macro economic indicator is essential for studying the functioning of labour market of an economy.

4.4. Models of Unemployment and Employment Determination and Their Application to Jordanian Economy

The present section intends to analyse in brief the models which have evolved to understand unemployment and determination of employment. It should be mentioned here that both Macro and

labour Economics have dealt with these issues. The section will also address itself to their application to Jordanian economy.

In the preceding section the important features of unemployment in terms of stock flow characteristics is mentioned. This is explained in terms of Search Theoretic approach. Contract Theory and Efficiency Wage Theory also help in explaining unemployment. The macro economic relation between inflation and unemployment captured in 'Phillips curve', helps in analysing that the natural rate of unemployment and the inflation are related in short run but are independent of each other in the long run. The employment determination models, i.e., i) Free Market Classical model, ii) Output-Employment Macro model, iii) Price-Incentive Micro model are also discussed, as they help in analysing unemployment in an economy.

Following is the brief description of the main premises of the above models.

Job Search Models:- In the chapter on labour market, income-leisure choice model is discussed, which explains the decision making process in seeking employment by people. Theory of Job search is complementary to the income-leisure model as it can not explain the experience of 'unemployment' of an individual in the labour market. Unemployment has no place in the income-leisure model as jobs are available at market clearing wage.

Various empirical studies during 1960's and 1970's on flow in and out of employment, helped to evolve Search Theoretic approach to unemployment duration. The unemployment spell according to this is the result of imperfect knowledge on the part of workers regarding location of a job and likely wages. The worker has to get information about these to decide whether to go for a given job or not. This process is costly and requires time and results in variation in unemployment spells among workers. A worker shops the best job for himself out of the various opportunities available to him[17]. A worker does not wait infinitely to get the 'best' offer, but depending upon the sampling wage offer at a time, he decides whether to continue or stop the search. One of the early attempts to empirically estimate the model for the distribution of search spell length is found in the works of Gronau, McWell and Morstensen, all during the Seventies[18]. Job search theory considers time spent in searching for an employment as a "productive" one, much to the discomfort of Keynesian Microeconomics. Of Recent Search Theoretic approach is extended to the analysis of job turnover behaviour, wage growth and other experiences of workers in the labour market[19]. The main deficiencies of the theory which are often cited are that it has nothing to say about the shift of labour resources from employment to non-market activities and that there is a concentration of unemployment among a fairly small group of people[20]. This is so because it focuses mainly on explaining unemployment in terms of misperceptions of employers and also unemployed at the prevailing level of wages in the market.

Contract Theory:- the main emphasis in the Search Theoretic models is on job changing and labour market turnover, whereas the contract models basic presumption is that firms and employees have long term relationship. Search theory is concerned about the nature of unemployment among those who are jobless, whereas contract theory is concerned with variations in hours of work and unemployment which is the result of layoffs.

According to Contract Theory workers and employers enter into contract, which specifies hours of work, wages and the rules which would determine them. Thus bilateral negotiations rather than decentralized markets determine how prices and quantities should respond to external changes. The labour market of Contract Theory is different from conventional neoclassical labour market where adjustments are made on the basic of market price signals. In markets dominated by implicit contracts, resource allocation relies heavily on the 'invisible hands shape' rather than invisible hand[21]. The contracts allow the possibility of periodic spells of temporary lay offs, rendering unemployment purely 'involuntary' in nature. Other models of long term relationship is based on the presumption that workers have firm specific skills. Therefore both for employees and employers there is heavy turnover cost, thus they prefer long term relationship. However firms still have the right of unilateral lay off if demand fluctuates[22].

Contract theory thus gives justification to Keynesian hypothesis of firms choosing employment unilaterally, subject to predetermined wages. However, the limitations of Contract Theory

are in terms of its inability to explain nominal wage stickiness and quiet behaviour of workers. The existence of implicit contracts and continuity of association may also lead to the formation of dual or segmented labour markets.

Efficiency Wage Theory:- In the profit maximization framework, employers do not cut wages when the supply of labour is in excess because this may result in reduction in productivity, which overweighs the savings made by paying lower wages. Hence, the efficiency wage is the wage which minimises wage costs per efficiency unit. Unlike Search Theory, this model generates involuntary unemployment. This happens because there is a supply of unemployed workers, who are willing to work at efficiency wage or even lower than that. However, they are not hired because of wage-productivity relationship. The efficiency wage also responds to the level of unemployment benefits offered to the unemployed in the market[23]. Efficiency wages theories have not received the same attention as that of Search and Contract theories. Contract theorists might argue that contracts are Pareto superior to the firms setting efficiency wages to reduce their costs. On the other hand, Efficiency Wage Theory contributes in the understanding of the functioning of a labour market, where efficiency wage relationship of firms varies across firms for similar type of workers, resulting in different efficiency wages. A phenomenon lacking in job search model of labour supply.

Neoclassical Model of Phillips Relation

The relation between the rate of inflation and unemployment is known as Phillips Relation, which is extensively documented in the literature of Macro Economics and Labour Economics. The relationship is based on the premise that in a dynamic economy the forces that determine demand and supply for labour keep changing. The changes in the price level are neither comprehended nor anticipated by workers or employers. Therefore there are temporary changes in employment or unemployment. The neoclassical explanation of this phenomena is that the relationship between the rate of unemployment and inflation exists only in the short run and not in the long run. In the long run they are separate problems requiring separate solutions.

The short run Phillips curve indicates the various combinations of inflation and unemployment rate which come about when the actual rate of inflation diverges from the expected rate. When the inflation is greater than expected, firms discover that their product prices are rising under conditions of decreased demand but at the same time labour cost does not increase that rapidly. This happens because of long run wage contracts. The firms tend to hire more workers at the new lower real wages. At the same time people in search of jobs begin to receive rising wage offers and firms compete for new workers. As per the search model if workers view these money wage hikes as real, they would reduce their search time and unemployment will fall. In the other combination when inflation is less than expected, unemployment rises.

In the long run, however, people begin to recognize the actual rate of inflation and adopt their expectation accordingly. As old contracts expire, workers start demanding increase in money wages and job seekers increase their search time. Because of these real labour costs rise and firms discharge labour and unemployment increases. There is no trade off between unemployment and inflation and the Phillips curve is vertical indicating that equilibrium in the labour market is possible at the natural rate of unemployment and at any rate of inflation, as long as that rate is anticipated.

The above theories are the major contributors in the study of labour market behaviours and are helpful in analysing unemployment. However, no single theory can claim to fully comprehend the forces operating in the labour market resulting in unemployment.

Employment Determination Models:- The above mentioned unemployment models should be placed in the context of some of the employment determination models developed within the tradition of Neoclassical macro economic framework. The purpose here is not to provide an exhaustive treatment of the theories since they are well documented in the literature on Macro-Economics, Labour Economics and Economics of development[24], but to focus on major theoretical premises which can help us in understanding the behaviour of labour market of Jordan. Following is the brief description of these models.

Free Market Classical Model:- The traditional approach to wage and employment determination is based on the operation of the forces of demand and supply. Producers demand workers as long as their marginal revenue product exceeds the wage rate. Due to the law of diminishing marginal product, the demand curve for labour is negatively sloped. On the supply side because of the assumption of utility maximization, a worker is ready to offer his labour only at a higher wage rate as he divides his time between work and leisure in accordance with the relative marginal utility of each. Thus the supply curve of labour is positively sloped. Equilibrium wage rate will be that when demand is equal to supply and any situation other than this will ultimately tend towards equilibrium level. This is a situation of full employment as all people willing to work are able to get jobs. Hence there is no "involuntary unemployment". In the world of flexible wages thus there can never be unemployment !

Output-Employment Macro Model:- This model is based on relationship among capital accumulation, growth in industrial output and employment generation. The principal theoretical tool is well documented in the Harrod Domar Model, which explains economic growth as the result of rate of saving and hence capital accumulation and capital output ratio. For a given capital output ratio, rate of output and employment can be maximized by maximizing rate of investment. The problem with such a formulation especially with respect to developing economies is that if capital accumulation leads to a development of such a

technology which is labour saving, then the employment may not increase. However, many economists such as Streenten and Paul have argued that there can be a development strategy which can stimulate both employment and output growth[25]. The strategy may be formed to develop rural and small scale urban sector. More employment will generate more income for the poor, which in turn will lead to more demand for consumption goods. However, this would be successful only if distortions in factor prices are corrected and development of labour intensive technologies is promoted.

Neo-classical Price Incentive Model:- The basic preposition of the model is that producers are assumed to adopt a product technology which is labour or capital intensive depending upon relative prices of these inputs.

In case of populous developing economies, it is expected that labour intensive technology will be used. However one often finds the technology to be quite capital intensive in nature. The reasons which are often cited go well within the price incentive models, are the structural, institutional and political, which lead to relatively higher price of labour to capital. This distortion encourages use of capital intensive technologies. Many empirical studies have shown that reduction in wages in developing countries can lead to an increase in employment. However the impact on reducing unemployment is not felt since the manufacturing sector employment constitutes a small portion of total employment.

All the above mentioned models of employment determination though do not directly deal with unemployment, provide useful insight in tackling the problem of unemployment by emphasizing the role of capital formation and relative input prices. These models fall within the neoclassical tradition. The models developed by labour economists deal with specific issue of unemployment, which neoclassical micro and macro models do not address directly.

The nature of unemployment problem in developing countries in general and in Jordan in particular is unique. As mentioned earlier, the solution of unemployment problem requires a multifacet approach. In Jordan, Job Search models can be applied to some extent, as the available job opportunities are limited and workers have limited options. This encourages them to emigrate. Contract theory can be applied as there are contracts in many organized jobs. However, the applicability of the efficiency wage theory to study the unemployment problem in Jordan is doubtful because the use of sophisticated technology is not very widespread and employers can get workers without much problems. However continued emigration of skilled workers, might result in efficiency wages to discourage workers to emigrate. The analysis of unemployment in Jordan based on Phillips relation is difficult as one does not get information on inflation rate. Unemployment rate in Jordan ranged between 5 to 14 percent 1968-1974 and between 6 to 18 percent between 1985 to 1993. For the period between 1975-1984 it fell to as low as 2 percent and increased to 5 percent. If we compare this to cost of living

index (Table 5.15), we find that cost of living index continuously increased during the period of 1970 to 1993, whereas unemployment rate fluctuated. The employment determination models help in emphasizing three things for Jordanian economy: a) government policies should gear not only towards creating employment in industrial sector but also to develop agriculture so as to reduce the pressure of rural migrants in urban area. b) since industrial sector is yet to contribute significantly to national income of Jordan, it would be necessary to evolve production technology which is able to absorb the labour force. c) as mentioned earlier the average wages are falling. This situation should be used for the advantage of the economy to develop appropriate technology and to create more job opportunities. Fall in wages should not go against development of agriculture and industrial sectors and their absorption in the domestic labour demand as people prefer to emigrate in absence of opportunities in the domestic market. It is therefore necessary to know about the nature of unemployment problem of Jordan before embarking upon a possible solution.

4.5 Unemplomemt In Jordan

To Understand unemployment in any country, it is necessary to be aware of the statistical methods used officially to measure the volume of unemployment.

> The official definition of unemployed in Jordan is, "a person in the age group 15-65 years, who had no work inspite of his/her ability and willingness

to work, and is looking for work effectively, during the period of the survey which is the preceding week of the interviewing day[26].

The unemployment duration can be defined as a period since the job search to the date of the interview. The unemployment can be short-term unemployment if it is that of less than seven months, medium-term for 7 to 12 months and the long-term which is usually for more than 12 months.

Various studies conducted by the government and individual scholars point to the fact that unemployment is high in Jordan. Apart from seasonal and frictional unemployment, the two major types of unemployment prevalent in Jordan are Demographic and Structural which are in a way overlapping due to mutually affecting forces. The brief explanation of these types of unemployment is as follows.

i) Demographic Unemployment

The migratory streams of Palestinian population on account of the Arab-Israeli wars from time to time and the rapid growth rate of population has caused a burden on Jordanian economy as well as on public expenditure. The government has not been in a position to absorb this sudden influx of refugees to Jordan.

Hence, the unemployment rate shot up to more than 50 percent during the Fifties. Demographic unemployment rose again in recent years due to Gulf war of 1991 as a sizable number of earlier emigrants returned to Jordan.

ii) **Structural Unemployment**

It is a major type of unemployment which is the result of forces operating on the composition of demand and supply of labour. Demand for labour is adversely affected by limited economic resources and lower capital formation are unable to create new job opportunities to absorb the labour force. During the Eightees various Gulf countries came in the grip of economic recession due to fall in their revenue from oil. As Jordan depends for its very survival on foreign aid mainly from Arab Gulf countries and remittances from Jordanian working in Gulf, it faced severe economic problems. Lack of domestic capital formation aggrevated the problem leading to cyclical unemployment and underemployment.

As labour supply exceeds labour demand, employers tend to offer relatively low wages. At the same time immigrant labour creates underemployment for Jordanian workers in some occupations as immigrants accept wages at lower rate than the prevailing wage level. They also work for longer working hours than Jordanian labour force which consequently causes underemployment among Jordanians who are forced to work at lower wage level.

The overall unemployment scenario is captured in unemployment rate as shown in table 4.1. It can be seen from the table that higher unemployment rate prevailed during 1968-1974. Thereafter there was a fall. A gradual increase took place after 1976 and a sudden rise took place in 1991.

From 1975 to 1977 the fall in unemployment was due to economic prosperity, which was a result of hike in oil prices. This oil hike induced Oil-Gulf countries to implement ambitious economic plans which resulted in a large scale demand for foreign labour force. This resulted is an outflow of Jordanians to Oil-Gulf countries which not only solved the chronic unemployment problem, but also led to shortages in some occupations in domestic labour market. Jordan received remittances which increased from JD 5.5 million in 1970 to JD 154.7 million in 1977. The economy also received financial aids from Oil-Arab countries. It therefore enjoyed economic prosperity. As a result unemployment rate dropped during this period and it was as low as 1.6 percent.

However, after 1976 unemployment again started increasing. The main reasons for this were the economic recession and influx of returness due to the Gulf war.

The following sections deal in detail with the nature and extent of unemployment problem in Jordan.

4.6 Unemployed by Governorates

Table 4.1 shows district wise distribution of the unemployed Jordanians during the period 1969-1991. The Amman Governorate had the largest number of unemployed through out the period 1968-1991. In 1968 its share was 77.6 percent. The share of Irbid was 14.8, Balqa 4.0 perent, Ma'an 2.9 percent, and Karak

0.7 percent of total unemployed (Table 4.2). Over the years the percentage share of Amman in total unemployed decreased with some fluctuations and was 67.7 percent in 1987. The share of Irbid increased to 27 percent in 1980 and thereafter decreased to 13.8 percent in 1987. In case of other governorates also one finds an increase in the percentage share. Between 1987 and 1991, except that of Irbid, the percentage share of all other governorates decreased. However Amman continued to have the highest percentage share of total unemployed in 1991.

The table 4.2 also shows the unemployment rate. Amman had the unemployment rate of 13.2 percent in 1968, which increased to 19 percent in 1972 and thereafter declined to 3.6 percent in 1980. There was an increase in nemployment rate to 10 percent in 1987. However, within a few years it rose sharply to 21 percent in 1991. More or less similar was the trend in other governates also. In 1991, unemployment rates were 16.8, 18.6, 15.5 and 12.0 percent respectively in Irbid, Balqa, Korak and Ma'an.

Table 4.1 : Distribution of Unemployed by Governorates, 1968 - 1991 (in '000)

Years	Total Unemployed	Unemployment Rate (%)	Governorates				
			Amman	Irbid	Balqa	Karak	Ma'an
1	2	3	4	5	6	7	8
1968	27.7	9.9	21.5	4.1	1.1	0.2	0.8
1969	34.2	11.8	27.6	4.3	1.1	0.2	1.0
1970	41.0	13.7	33.9	4.6	1.2	0.1	1.2
1971	43.0	13.8	35.3	4.9	1.2	0.1	1.5
1972	45.1	14.0	36.8	5.1	1.2	0.1	1.9
1973	36.8	10.1	31.9	3.1	0.6	0.1	1.1
1974	27.5	8.0	24.6	1.8	0.3	0.1	0.7
1975	17.3	4.9	15.6	1.1	0.1	0.1	0.4
1976	5.9	1.6	4.8	0.7	0.1	0.1	0.2
1977	8.5	2.2	6.7	1.2	0.2	0.1	0.3
1978	11.3	2.9	8.2	2.1	0.3	0.3	0.4
1979	14.2	3.5	8.7	3.7	0.7	0.6	0.5
1980	14.7	3.5	8.4	4.0	1.1	0.7	0.5
1981	17.0	3.9	9.5	4.2	1.8	1.0	0.5
1982	19.4	4.3	10.4	4.5	2.8	1.1	0.6
1983	22.4	4.8	14.4	2.8	3.2	1.3	0.7
1984	26.2	5.4	15.0	5.2	3.5	1.6	0.9
1985	30.1	6.0	17.7	5.5	3.9	1.8	1.2
1986	42.9	8.0	29.0	5.9	4.3	2.2	1.5
1987	46.4	8.3	31.4	6.4	4.6	2.4	1.6
1991	128.0	18.8	80.9	30.3	8.7	5.9	2.3
Anul.Avg. Growth Rate (1968-1987)	-0.9	-	3.1	2.4	10.3	18.8	-0.1

Source : Unemployed are considered in this and subsequent tables as Labour Force - Employed based on data as shown in Chapter 3, unless and until specified.

Table 4.2 : Percentage Distribution and Unemployed to Labour Force by Governorates,1968 -1991

Years	Amman		Irbid		Balqa		Karak		Ma'an	
	% Share	Unemp. rate	% Share	Unemp. rate	% Share	Unemp. rate	% Share	Unemp. rate	% Share	Unemp. rate
1	2	3	4	5	6	7	8	9	10	11
1968	77.6	13.2	14.8	6.7	3.9	5.0	0.7	1.1	2.9	5.8
1969	80.7	16.1	12.6	6.9	3.2	4.9	0.6	1.0	2.9	6.9
1970	82.7	18.9	11.2	7.3	2.9	5.2	0.2	0.5	2.9	8.1
1971	82.0	18.8	11.4	7.6	2.8	5.0	0.2	0.5	3.5	9.8
1972	81.6	18.8	11.3	7.8	2.7	4.9	0.2	0.4	4.2	11.9
1973	86.7	15.6	8.4	4.5	1.6	2.4	0.3	0.5	2.9	7.0
1974	89.4	11.7	6.5	2.5	1.1	1.2	0.4	0.5	2.5	4.5
1975	90.2	7.2	6.3	1.4	0.6	0.4	0.6	0.5	2.3	2.5
1976	81.3	2.2	11.9	0.7	1.7	0.4	1.7	0.4	3.4	1.2
1977	78.8	3.0	14.1	1.4	2.4	0.7	1.2	0.4	3.5	1.8
1978	72.6	3.6	18.6	2.2	2.6	1.1	2.6	1.3	3.5	2.3
1979	61.3	3.8	26.0	2.0	4.9	2.4	4.2	2.4	3.5	2.8
1980	57.1	3.6	27.0	3.4	7.5	4.0	4.8	2.6	3.4	2.9
1981	55.9	3.9	24.7	3.6	10.6	6.3	5.9	3.5	2.9	2.7
1982	53.6	4.2	23.2	3.6	14.4	9.4	5.7	3.6	3.0	3.3
1983	64.3	5.6	12.5	2.2	14.3	10.4	5.8	3.8	3.1	3.7
1984	57.0	5.6	19.8	4.0	13.4	10.9	6.1	4.6	3.4	4.6
1985	58.8	6.3	18.2	4.1	12.9	11.7	5.9	5.0	3.9	5.8
1986	67.6	9.6	13.8	4.2	10.0	12.3	5.1	5.8	3.5	6.9
1987	67.7	10.0	13.8	4.4	9.9	12.7	5.2	6.0	3.4	7.1
1991	63.2	20.9	23.7	16.0	6.8	18.6	4.6	15.5	1.8	12.0

Source : Percentage share is Based on Table 4.1.
Unemployed to corresponding labour force is based on Tables 3.7 & 4.1.

4.7 Distribution of Unemployed by Economic Activity

Tables 4.3 and 4.4 show sector wise unemployed Jordanians during 1968-1991. It is clear from the table 4.3 that the unemployment was relatively high in all the years except 1976 and 1977.

The distribution of unemployment across the sectors follows the same trend as distribution or labour force (Table 3.9 & 3.10). As labour force is concentrated in public administration sector etc., the highest proportion of unemployed also belongs to that category in all the years (Table 4.4). The percentage shares of unemployed in mining and manufacturing increased from 7.9 percent in 1968 to 10.2 percent in 1991. The percentage share of unemployment in construction and transport and communication was 7.9 and 5.1 respectively. The unemployed in agriculture accounted for 18.4 percent in 1968 and 7.4 percent in 1991. The percentage share of electricity and water and financial services sector was 0.4 and 1.4 relatively in 1968, which increased to 1.3 and 3.2 in 1991. Thus, the unemployment rate (Table 4.5) in all the economic sectors rose during 1968-1991. The highest unemployment rate in 1968 was in social services etc., of 12.0 percent rose to 18.8 percent in 1991. The lowest unemployment rate was 6.7 percent in electricity and water in 1968 and rose to 19.1 percent in 1991.

Thus, during the 24 years of study the nature of distribution unemployed among economic sectors is mainly due to

Table 4.3 : Distribution of Unemployed by Economic Activities, 1968 -1991 (in'000)

Years	Agric-ulture	Mining and Manufa-cturing Industry	Electr-icity and Water	Cons-truc-tion	Commerce /Trade	Trans-port & Commun-ication	Finan-cial Serv-ices	Social Services, Defence & Public Adminis-tration
1	2	3	4	5	6	7	8	9
1968	5.1	2.2	0.1	2.2	2.0	1.4	0.4	14.3
1969	6.4	2.9	0.2	2.9	2.7	1.9	0.5	16.7
1970	8.0	3.8	0.2	3.7	3.7	2.7	0.7	18.2
1971	7.9	3.9	0.3	3.9	3.9	3.0	0.8	19.3
1972	7.8	4.1	0.3	4.0	4.2	3.4	0.8	20.5
1973	4.4	2.5	0.2	2.5	2.5	2.0	0.5	22.2
1974	2.5	1.5	0.1	1.6	1.5	1.2	0.3	18.8
1975	1.4	0.9	0.1	1.0	1.0	0.7	0.2	12.0
1976	0.8	0.5	0.0	0.7	0.6	0.4	0.1	2.8
1977	1.0	0.7	0.0	0.9	0.8	0.6	0.2	4.3
1978	1.3	0.9	0.1	1.3	1.1	0.8	0.2	5.6
1979	1.6	1.2	0.1	1.9	1.5	1.0	0.3	6.6
1980	1.5	1.3	0.1	1.9	1.5	1.1	0.3	7.0
1981	1.6	1.6	0.2	2.1	1.7	1.4	0.4	8.0
1982	1.6	1.9	0.1	2.4	2.0	1.6	0.6	9.2
1983	1.7	2.3	0.2	2.7	2.2	0.5	0.7	12.1
1984	1.9	2.7	0.2	3.0	2.7	2.3	0.9	12.5
1985	2.3	3.2	0.3	3.4	3.0	2.8	1.0	14.1
1986	3.3	4.6	0.5	4.7	4.2	4.0	1.5	20.1
1987	2.6	6.0	0.6	7.7	5.8	5.1	1.0	17.6
1988	3.8	5.2	0.9	5.0	5.0	4.5	1.8	24.2
1989	4.3	6.3	0.9	5.8	6.1	5.2	1.9	29.5
1990	7.6	10.8	1.4	10.5	10.7	9.0	3.4	52.4
1991	9.5	13.1	1.7	12.6	13.1	11.2	4.1	62.6
Anul.Avg. Growth Rate	-2.6	5.8	7.5	5.7	5.6	6.2	8.4	3.5

Sources:1. Royal Scientific Society, Current Status and Feature of Jordanian Labour Market, Vol.3, 1989 (Years 1968-1987).
2. Dr. Mohamad Amerah, Unemployment in Jordan : Dimentions and Prospects, The Centre for International Studies, The Royal Scientific Society (RSS), Table 2.2.
3. Central Bank of Jordan, Monthly Statistical Bulletin, Vol.31, No.6, 1993.

Table 4.4 : Percentage Distribution of Unemployed by Economic Activities, 1968 - 1991

Years	Agriculture	Mining and Manufacturing Industry	Electricity and Water	Construction	Commerce /Trade	Transport and Communication	Financial Services	Social Services, Defence & Public Administration
1	2	3	4	5	6	7	8	9
1968	18.4	7.9	0.4	7.9	7.2	5.1	1.4	51.6
1969	18.7	8.5	0.6	8.5	7.9	5.6	1.5	48.8
1970	19.5	9.3	0.5	9.0	9.0	6.6	1.7	44.4
1971	18.4	9.1	0.7	9.1	9.1	7.0	1.9	44.9
1972	17.3	9.1	0.7	8.9	9.3	7.5	1.8	45.5
1973	12.0	6.8	0.5	6.8	6.8	5.4	1.4	60.3
1974	9.1	5.5	0.4	5.8	5.5	4.4	1.1	68.4
1975	8.1	5.2	0.6	5.8	5.8	4.0	1.2	69.4
1976	13.6	8.5	0.0	11.9	10.2	6.8	1.7	47.5
1977	11.8	8.2	0.0	10.6	9.4	7.1	2.4	50.6
1978	11.5	8.0	0.9	11.5	9.7	7.1	1.8	49.6
1979	11.3	8.5	0.7	13.4	10.6	7.0	2.1	46.5
1980	10.2	8.8	0.7	12.9	10.2	7.5	2.0	47.6
1981	9.4	9.4	1.2	12.4	10.0	8.2	2.4	47.1
1982	8.2	9.8	0.5	12.4	10.3	8.2	3.1	47.4
1983	7.6	10.3	0.9	12.1	9.8	2.2	3.1	54.0
1984	7.3	10.3	0.8	11.5	10.3	8.8	3.4	47.7
1985	7.6	10.6	1.0	11.3	10.0	9.3	3.3	46.8
1986	7.7	10.7	1.2	11.0	9.8	9.3	3.5	46.9
1987	5.6	12.9	1.3	16.6	12.5	11.0	2.2	37.9
1988	7.6	10.3	1.8	9.9	9.9	8.9	3.6	48.1
1989	7.2	10.5	1.5	9.7	10.2	8.7	3.2	49.2
1990	7.2	10.2	1.3	9.9	10.1	8.5	3.2	49.4
1991	7.4	10.2	1.3	9.8	10.2	8.8	3.2	48.9

Source : Based on Tables 4.1 and 4.3.

Table 4.5 : Percentage Distribution of Unemployed to Labour Force by Economic Activities, 1968 - 1991

Years	Agriculture	Mining and Manufacturing Industry	Electricity and Water	Construction	Commerce /Trade	Transport & Communication	Financial Services	Social Services Defence & Public Administration
1	2	3	4	5	6	7	8	9
1968	8.3	8.3	6.7	8.4	8.2	8.8	8.3	12.0
1969	10.7	10.7	12.5	10.8	10.5	10.7	10.0	13.3
1970	13.7	13.6	11.8	13.6	13.8	13.7	13.2	13.7
1971	13.9	13.6	16.7	13.9	13.8	13.7	14.3	13.8
1972	14.0	14.0	15.0	13.9	14.1	14.0	13.6	14.0
1973	8.1	8.3	10.0	8.0	8.0	8.0	8.1	14.5
1974	4.7	4.9	4.8	4.7	4.6	4.7	4.5	11.8
1975	2.7	2.8	4.5	2.7	2.9	2.7	2.9	7.3
1976	1.5	1.5	0.0	1.7	1.7	1.5	1.8	1.6
1977	2.0	2.1	0.0	2.0	2.1	2.2	2.6	2.4
1978	2.7	2.6	4.2	2.7	2.8	2.8	2.4	3.0
1979	3.4	3.4	4.0	3.6	3.6	3.4	3.4	3.4
1980	3.5	3.5	3.6	3.6	3.5	3.5	3.1	3.5
1981	3.9	3.9	6.1	3.8	3.8	4.0	3.6	3.9
1982	4.3	4.3	2.7	4.4	4.3	4.3	4.9	4.3
1983	4.9	4.9	4.7	4.9	4.6	1.3	5.1	5.3
1984	5.2	5.4	4.2	5.4	5.5	5.3	5.9	5.5
1985	5.9	6.0	5.5	6.1	6.0	5.9	5.8	6.0
1986	8.1	8.0	8.5	8.0	7.9	8.0	8.2	8.0
1987	6.5	10.1	6.6	12.6	10.5	9.8	5.5	6.8
1988	9.2	8.5	9.6	7.9	8.7	8.4	9.6	9.0
1989	10.2	10.1	9.5	9.0	10.5	9.5	9.9	10.8
1990	16.6	16.8	17.1	16.8	16.8	16.8	16.8	16.8
1991	18.9	18.7	19.1	18.9	18.7	18.7	18.8	18.8

Source : Based on Tables 3.9 and 4.3.

the nature of distribution of labour force as envisaged and researched by the different researchers. The structural transformation has been rather slow in Jordan and therefore the dominance of social services, public administration etc., has led to high incidence of unemployment in these sectors.

4.8 Occupationwise Distribution of Unemployed

Table 4.6 gives information about distribution of unemployed according to occupations during the period 1968-1993. It can be observed from the table that in 1968 the majority of unemployed belonged to productive and unclassified Jobs. Agriculture is the second largest occupation where there was a concentration of the unemployed. The unemployed in unclassified jobs catagory comprised 59.9 percent of the total unemployed in 1968 (Table 4.7) which fell to 27.8 percent in 1987. Next to this was the unemployment in agriculture which was 18.4 percent of total unemployed in 1968 which fell to 6.3 percent in 1987. While the share of unemployment of salesmen was 6.1 percent in 1968 which fell to 2.6 percent in 1987. The highest share in total unemployed was that of specialists and technicians in 1987 which was 43.8 percent. This might be the main reason for this category of labour force to emigrate.

The unemployment rate (Table 4.8) was the highest in productive and unclassified categories. It was 11.3 percent in 1968 which decreased to 2.1 percent in 1993 with fluctuations in the intervening years. Other occupations had similar percentage

shares in the range of 8.0 percent. In 1993 it was in the range 0.2 percent to 3.6 percent. The figures reported in 1992 and 1993 are based on registered unemployed with Ministry of Labour. The actual unemployment is much more.

It is clear that labour force as well as the unemployed happen to concentrate mostly in productive and unclassified Jobs. This is attributable to the dominance of such jobs in the economic activity of the country.

Table 4.6 : Distribution of Unemployed by Occupation, 1968 -1993

(In '000)

Years	Specialists & Technicians	Administratives	Clerks	Salesmen	Services	Agriculture	Productive and Unclassified
1	2	3	4	5	6	7	8
1968	1.4	0.2	1.3	1.7	1.4	5.1	16.6
1969	1.8	0.3	1.6	2.1	1.8	5.8	20.8
1970	2.3	0.4	1.9	2.5	2.0	6.4	25.5
1971	2.9	0.4	2.3	2.9	2.4	7.0	25.1
1972	3.5	0.5	2.6	3.3	2.8	7.6	24.8
1973	3.1	0.5	2.1	2.8	2.3	5.8	20.2
1974	2.5	0.4	1.7	2.1	1.7	4.1	15.0
1975	1.7	0.2	1.1	1.3	1.1	2.4	9.5
1976	0.6	0.1	0.4	0.4	0.4	0.8	3.2
1977	1.0	0.1	0.5	0.7	0.5	0.8	4.9
1978	1.4	0.2	0.7	0.9	0.7	0.8	6.6
1979	1.8	0.3	1.0	1.1	0.9	0.8	8.3
1980	2.2	0.2	1.2	1.2	0.9	0.8	8.2
1981	2.7	0.3	1.5	1.3	1.0	0.9	9.3
1982	3.5	0.5	2.0	1.1	1.0	1.0	9.9
1983	4.8	0.5	2.2	1.3	1.3	0.9	11.4
1984	6.8	0.6	2.5	1.3	1.6	0.9	12.5
1985	9.5	0.7	2.8	1.2	2.1	0.9	12.7
1986	13.4	0.9	3.2	1.2	2.7	0.9	20.6
1987	20.3	1.5	4.0	1.2	3.6	2.9	12.9
1992*	1.0	0.0	0.9	0.2	1.6	0.2	10.5
1993*	1.5	0.1	1.1	0.2	1.5	0.1	9.2
Anul.Avg. Growth Rate (1968-1987)	9.3	5.5	3.0	-4.3	0.2	-11.6	-3.0

Note : * Registered with Ministry of Labour. The actual unemployed is much more than registered unemployed with Ministry of Labour.

Sources : 1. ISSA Ibshim and Others Current Status and Future of Jordanian, Labour Market, Part 3, Data Base Royal Scientific Society (RSS), 1989, Arabic Origin (For the Years 1968-1987).

2. Ministry of Labour, Annual Reports, 1992-1993.

Table 4.7 : Percentage Distribution of Unemployed by Occupation, 1968 -1993

Years	Specialists and Technicians	Administratives	Clerks	Salesmen	Services	Agriculture	Productive and Unclassified
1	2	3	4	5	6	7	8
1968	5.1	0.7	4.7	6.1	5.1	18.4	59.9
1969	5.3	0.9	4.7	6.1	5.3	17.0	60.8
1970	5.6	1.0	4.6	6.1	4.9	15.6	62.2
1971	6.7	0.9	5.3	6.7	5.6	16.3	58.4
1972	7.8	1.1	5.8	7.3	6.2	16.9	55.0
1973	8.4	1.4	5.7	7.6	6.3	15.8	54.9
1974	9.1	1.5	6.2	7.6	6.2	14.9	54.5
1975	9.8	1.2	6.4	7.5	6.4	13.9	54.9
1976	10.2	1.7	6.8	6.8	6.8	13.6	54.2
1977	11.8	1.2	5.9	8.2	5.9	9.4	57.6
1978	12.4	1.8	6.2	8.0	6.2	7.1	58.4
1979	12.7	2.1	7.0	7.7	6.3	5.6	58.5
1980	15.0	1.4	8.2	8.2	6.1	5.4	55.8
1981	15.9	1.8	8.8	7.6	5.9	5.3	54.7
1982	18.4	2.6	10.5	5.8	5.3	5.3	52.1
1983	21.4	2.2	9.8	5.8	5.8	4.0	50.9
1984	26.0	2.3	9.5	5.0	6.1	3.4	47.7
1985	31.8	2.3	9.4	4.0	7.0	3.0	42.5
1986	31.2	2.1	7.5	2.8	6.3	2.1	48.0
1987	43.8	3.2	8.6	2.6	7.8	6.3	27.8
1992*	7.2	0.1	6.2	1.4	11.1	1.4	72.6
1993*	11.0	0.6	8.0	1.5	11.0	0.7	67.3

Source : Based on Tables 4.1 and 4.6

Table 4.8 : Percentage Distribution of Unemployed to Labour Force by Occupation, 1968 -1993

Years	Specialists and Technicians	Administratives	Clerks	Salesmen	Services	Agriculture	Productive and Unclassified
1	2	3	4	5	6	7	8
1968	8.5	7.4	8.5	8.5	8.2	8.4	11.3
1969	9.8	10.0	9.9	10.4	10.1	9.9	13.4
1970	11.3	12.1	11.2	11.5	10.9	11.2	15.7
1971	12.8	11.4	12.9	12.7	12.6	12.6	14.8
1972	13.9	13.2	13.9	13.9	14.1	14.0	14.0
1973	11.1	11.9	10.7	11.2	11.2	11.0	11.1
1974	8.0	8.7	8.2	8.1	8.0	8.0	7.9
1975	4.9	4.1	5.0	4.8	5.0	4.8	4.9
1976	1.6	1.9	1.7	1.4	1.7	1.7	1.6
1977	2.3	1.7	2.1	2.4	2.1	1.7	2.4
1978	2.9	3.1	2.7	2.9	2.8	1.7	3.1
1979	3.4	4.3	3.7	3.4	3.5	1.8	3.8
1980	3.9	2.9	4.5	3.5	3.4	1.9	3.6
1981	4.6	4.3	5.6	3.5	3.6	2.3	3.9
1982	5.7	7.2	6.9	2.8	3.5	2.6	4.0
1983	7.4	7.1	8.2	3.1	4.4	2.5	4.4
1984	10.0	8.6	9.3	2.9	5.2	2.7	4.6
1985	13.0	9.6	9.8	2.6	6.5	2.9	4.5
1986	16.7	12.0	10.3	2.5	8.0	2.8	6.8
1987	22.7	19.5	12.2	2.5	9.9	7.7	4.3
1992*	0.8	0.1	1.7	0.3	4.7	0.5	2.9
1993*	0.9	0.4	1.7	0.3	3.6	0.2	2.1

Source : Based on Tables 3.11 and 4.6.

4.9 Unemployed by Sex

The table 4.9 shows the distribution of unemployed Jordanians and labour force by sex during the period 1968-1991. In 1968 the unemployed male to total unemployed was 92.1 percent and females 7.9 percent. After 1969 the proportion of female unemployment increased to 37.6 perent in 1981. In 1987 it was 30.4 percent. The sharp changes in the percentage shares of both male and female were mainly due to the impact of Gulf War when there was an increase in total unemployed from 46.4 thousand in 1987 to 128 thousand in 1991.

The unemployment rate was high for females compared to males. It increased from 12.8 percent in 1968 to 21.4 percent in 1987, while unemployment among males decreased from 9.7 in 1968 to 6.3 in 1987. There is divergence in unemployment rate between females and males because many kinds of jobs are not found suitable for females due to certain social factors.

4.10 Unemployed by Educational Level

Table 4.10 shows distribution of the unemployed Jordanians on the basis of educational level during the period 1968-1991. It is clear from the table that the unemployed were concentrated in the category of below general secondary level of education. Their percentage share to total unemployed was 86.6 in 1968, while the

percentage of the unemployed in other categories was only 13.4 percent. This reflects that Jordanian labour market was constituted by the labour force which lacked in human capital component. In 1991 due to increase in the education levels the unemployed having the below general secondary level of education was 33.4 percent of the total unemployed. The percentage share of intermediary and general secondary level rose from 2.9 and 6.5 in 1968 to 32.7 and 19.5 percent in 1991 respectively. The unemployed in 1991 having a Bachelor Degree were 13.3 precent and a Post Graduates Degrees were 1.2 percent of total.

The unemployment rate (Table 4.11) being the highest in 'below general secondary' was 10.5 perent in 1968. It decreased to 7.7 percent in 1989 against a sharp increase in other categories, e.g., post graduate from 7.1 in 1968 to 22.8 in 1989 and intermediate from 5.3 in 1968 to 21.7 to 1989. In case of Bachelors, it increased from 6.6 in 1968 to 13.5 in 1989, and in general secondary it increased from 7.2 in 1968 to 9.3 in 1989. Thus over the years the problem of educated unemployed has become pertinent and this would require sufficient economic growth and proper manpower planning on the part of Jordanian Government.

The above analysis of nature of unemployment problem in Jordan is till the year 1989. The problem has become grave due to influx of returnees labour from oil rich Arab countries after the Gulf war in 1991. The unemployment rate which was around 15 percent in 1987 increased to 18 percent in 1993. The estimates show that a large majority of returnees around 70 percent of them

have education qualification higher than general secondary level. Jordan therefore will have to create job opportunities for them or will have to negotiate with the neighbouring countries about their reemployment. Whatever may be the course of action used by Jordanian government, one thing is clear that ultimately it is the domestic labour market which will have to provide employment opportunities to the returnees.

Unemployment in Jordan during the last 25 years indicates that there are economic and political factors which have influenced its nature and volume. It becomes necessary therefore to examine the nature and extent of influence of various factors. The following section therefore addresses to this.

Table 4.9 : Distribution of Unemployed and Unemployment Rate by Sex, 1968-1993

Years	Male (in '000)	Female (in '000)	Percentage to Total Unemployed[1]		Unemployed as % to Corresponding Labour Force[2]	
			Male	Female	Male	Female
1	2	3	4	5	6	7
1968	25.5	2.2	92.1	7.9	9.7	12.8
1969	30.9	3.3	90.4	9.6	11.4	18.2
1970	36.1	4.9	88.0	12.0	12.9	25.7
1971	36.6	6.4	85.1	14.9	12.6	31.8
1972	38.8	6.3	86.0	14.0	12.9	29.9
1973	30.8	6.0	83.7	16.3	9.9	26.9
1974	23.5	2.9	85.5	14.5	7.3	12.9
1975	14.5	2.8	83.8	16.2	4.4	11.2
1976	3.9	2.0	66.1	33.9	1.1	7.7
1977	7.4	1.1	87.1	12.9	2.1	4.0
1978	10.0	1.3	88.5	11.5	2.8	4.5
1979	12.9	1.3	90.8	9.2	3.4	4.4
1980	10.7	4.0	72.8	27.2	2.8	11.5
1981	10.6	6.4	62.4	37.6	2.7	16.0
1982	12.4	7.0	63.9	36.1	3.0	16.2
1983	14.2	8.2	63.4	36.6	3.4	17.2
1984	16.6	9.6	63.4	36.6	3.8	18.4
1985	18.9	11.2	62.8	37.2	4.2	19.5
1986	29.9	13.0	69.7	30.3	6.3	20.6
1987	32.3	14.1	69.6	30.4	6.6	21.4
1991	74.6	53.4	58.3	41.7	13.3	45.6
1992	94.7	11.3	89.3	10.7	N.A.	N.A.
1993*	137.8	23.8	85.3	14.7	N.A.	N.A.
Anul.Avg. Growth Rate (1968-97)	-2.9	6.5				

Sources :1. Calculation based on columns 2 and 3 of this table and table 4.1.

2. Calculation based on Columns 2 and 3 of this table and table 3.15.

3. * Calculated on the basis of percentages in the Annual Report of Ministry of Labour 1993.

Table 4.10 : Distribution of Unemployed by Education, 1968-1991

(in '000)

Years	Below General Secondary	% to Total Unemp	General Secondary	% to Total Unemp.	Intermediate	% to Total Unemp.	B.A./B.Sc.	% to Total Unemp.	Post Graduate	% to Total Unemp.
1	2	3	4	5	6	7	8	9	10	11
1968	24.0	86.6	1.8	6.5	0.8	2.9	1.0	3.6	0.1	0.4
1969	29.5	85.8	2.2	6.4	1.2	3.5	1.3	3.8	0.2	0.6
1970	35.1	85.6	2.8	6.8	1.3	3.2	1.6	3.9	0.2	0.5
1971	35.7	83.0	3.5	8.1	1.6	3.7	2.0	4.7	0.2	0.5
1972	36.0	79.8	4.3	9.5	2.0	4.4	2.5	5.5	0.3	0.7
1973	31.1	84.5	2.7	7.3	1.3	3.5	1.5	4.1	0.2	0.5
1974	24.1	87.6	1.6	5.8	0.8	2.9	0.9	3.3	0.1	0.4
1975	15.1	87.3	1.0	5.8	0.5	2.9	0.6	3.5	0.1	0.6
1976	4.5	76.3	0.6	10.2	0.3	5.1	0.4	6.8	0.1	1.7
1977	6.7	78.8	0.8	9.4	0.4	4.7	0.5	5.9	0.1	1.2
1978	8.8	77.9	1.1	9.7	0.7	6.2	0.6	5.3	0.1	0.9
1979	10.7	75.4	1.6	11.3	1.0	7.0	0.8	5.6	0.1	0.7
1980	10.0	68.0	2.3	15.6	1.4	9.5	0.9	6.1	0.1	0.7
1981	10.8	63.5	3.2	18.8	1.9	11.2	1.0	5.9	0.1	0.6
1982	10.9	56.2	4.6	23.7	2.6	13.4	1.2	6.2	0.1	0.5
1983	11.3	50.4	5.4	24.1	3.7	16.5	1.8	8.0	0.2	0.9
1984	11.6	44.3	6.3	24.0	5.2	19.8	2.7	10.3	0.4	1.5
1985	10.5	34.9	7.5	24.9	7.4	24.6	4.0	13.3	0.7	2.3
1986	15.0	35.0	10.6	24.7	10.6	24.7	5.7	13.3	1.0	2.3
1987	16.2	34.9	11.4	24.6	11.5	24.8	6.2	13.4	1.1	2.4
1989	22.9	38.2	15.1	25.2	13.1	21.8	7.6	12.7	1.3	2.2
1991*	42.5	33.4	25.0	19.6	41.3	32.4	17.0	13.4	1.5	1.2
Anul.Avg. Growth Rate (1968-87)	-5.9		7.8		11.6		5.8		6.8	

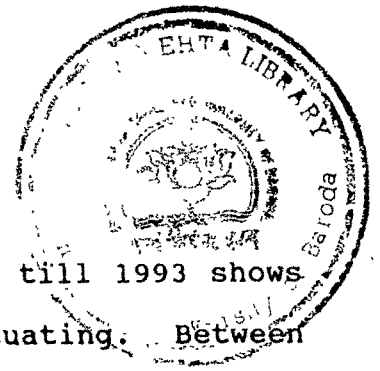
Sources : Dr. Issa Ibrahim and Others, Current Status and Future of Jordanian Labour Market - Data Basis of Jordarian Labour Market Part III, Centre of Economic Research - Royal Scientific Society, December, 1989.

Royal Scientific Society - Unemployment in Jordan : Dimension and Prospects - 1993, Table 4-2 (For the Year 1991).

Table 4.11 : Percentage Distribution of Unemployed to Labour Force by Education, 1968-1989

Years	Below General Secondary	General Secondary	Interme-diate	B.A./ B.Sc.	Post Graduate
1	2	3	4	5	6
1968	10.5	7.2	5.3	6.6	7.1
1969	12.6	8.3	7.5	8.2	12.5
1970	14.5	10.0	7.9	9.7	11.8
1971	14.3	11.9	9.2	11.6	11.1
1972	14.0	13.9	11.1	13.9	15.0
1973	11.8	8.3	6.9	8.0	9.1
1974	8.9	4.7	4.1	4.6	4.3
1975	5.4	2.8	2.4	2.9	4.0
1976	1.6	1.6	1.4	1.9	3.6
1977	2.3	2.0	1.8	2.2	3.3
1978	3.0	2.6	3.0	2.6	3.0
1979	3.5	3.6	3.6	2.3	2.9
1980	3.3	4.2	4.5	3.4	2.8
1981	3.6	4.9	5.6	3.4	2.6
1982	3.6	5.9	7.0	3.6	2.4
1983	3.8	6.0	9.2	5.0	4.7
1984	4.0	6.0	12.0	6.7	8.9
1985	3.7	6.3	15.6	9.2	14.6
1986	5.2	7.5	20.3	11.7	19.2
1987	5.7	7.5	20.0	11.5	20.3
1989	7.7	9.3	21.7	13.5	22.8

Source : Based on Tables 3.16 and 4.10.



4.11 Factors Affecting Unemployment in Jordan

Table 4.1 with statistics on unemployment till 1993 shows that the volume of unemployment has been fluctuating. Between 1973 to 1977 one finds a sharp fall from 36.8 thousand to 8.5 thousand. Thereafter there has been a steady rise in unemployment till 1988. Unemployment which was 50.3 thousand in 1988 rose to 161.5 thousand in 1993. This as mentioned above was mainly due to the Gulf War which resulted in influx of returnees and refugees.

The demand for labour being derived, the production in the economy has to increase to cause the demand for labour to increase. The technology determines the nature and volume of labour. In case of Jordan service sector is the main employer of labour. Agriculture and industrial sectors are not well developed and domestic savings are inadequate. People tend to emigrate for better job opportunities. It is often argued that outflow of people has considerably eased the problem of Jordan, otherwise unemployment would be higher. The inflow of people has displaced Jordanians atleast in some sectors especially in urban service sector resulting in unemployment.

In order to analyse the impact of various factors like gross domestic product, capital formation which generates demand for labour, outflow and inflow of labour, a multivariate regression model in double log form is estimated. The period selected for the analysis is 1976-1989 as this was the period of least political instability and also the inflow of labour had risen.

The main problem is that the data on GDP and Gross Fixed Capital Formation (GFCF) are available at different base year constant prices. Due to non availability of deflator cost of living index (Table 5.15) was used to deflate the series of GDP and GFCF, which is shown in Table 4.12. The wholesale index data at base year 1979 was available from 1975 onwards. We were interested in the period prior to 1975 also, as in the subsequent chapters period prior to 1975 was also covered for the use of statistical tools. Hence as a proxy we had to use cost of living index as it was available for a fairly long period of time. The data on capital stock was not available so we had to use the information on capital formation.

Tables 4.13(a) and 4.13(b) give correlation matrix of unemployment with other macro economic aggregates respectively at current and constant prices data of GDP and GFCF.

Following table 4.13(a) unemployment is highly positively correlated with all the variables. The other variables were also highly positively correlated. Table 4.13(b) shows that at constant prices there is negative correlation of GDP and GFCF with unemployment. GDP is negatively correlated with other variables. The values of all the negative correlations were small. Contrary to expectations outflow and unemployment were positively related.

Table 4.12 : Gross Domestic Product and Gross Fixed Capital Formation (at constant prices 1992=100, in Million JD)

	GDP	GFCF
1970	1132.2	163.6
1971	1156.5	190.7
1972	1201.2	213.5
1973	1148.9	248.4
1974	1089.4	278.4
1975	1228.7	346.1
1976	1489.7	487.6
1977	1587.0	608.0
1978	1821.9	660.2
1979	1902.0	743.9
1980	2616.0	1029.3
1981	3009.9	1418.9
1982	3218.3	1364.2
1983	3301.0	1065.4
1984	3408.0	984.9
1985	3444.0	673.4
1986	3703.0	717.3
1987	3551.2	820.3
1988	2827.0	834.5
1989	2621.0	715.5
Growth Rate		
1970-89	6.30	8.89
1976-89	0.18	1.5

Source : The current price data are converted at constant prices using cost of living index (1992=100) as reported in Table 5.15.

Table 4.13(a) : Correlation Matrix of Unemployment with other Macro Economic Aggregates, 1976-1989 (at current prices)

	Unemployment	GDP	GFCF	Outflow	Inflow
Unemployment	---	0.89	0.44	0.76	0.83
GDP	---	--	0.71	0.94	0.96
GFCF	---	--	--	0.78	0.76
Outflow of labour	---	--	--	--	0.92

Table 4.13(b) : Correlation Matrix of Unemployment with other Macro Economic Aggregates, 1976-89 (at constant prices 1992=100)

	Unemployment	GDP	GFCF	Outflow	Inflow
Unemployment	---	-0.21	-0.06	0.74	0.83
GDP	---	--	-0.19	-0.32	-0.29
GFCF	---	--	--	0.42	0.32
Outflow of labour	---	--	--	--	0.93

Note:

i) The data on current prices of GDP and GFCF are as per the information contained in Table 2.1

ii) The data on outflow and inflow are as per the information contained in Table 6.1.

The following regression model was estimated (in double log form). The results of three variants of model are shown in Tables 4.14(a) and 4.14(b), which respectively have variables at current and constant prices of GDP and GFCF.

$$\text{Unemployment} = b_0 + b_1\text{GDP} + b_2\text{GF} + b_3\text{OF} + b_4\text{IF} + e$$

Where GDP = Gross domestic product in million JD.
GF = Gross Fixed Capital Formation in million JD.
OF = Outflow of labour (in '000).
IF = Inflow of labour (in '000).
e = error term.
bs = Regression coefficients to be estimated.

Table 4.14(a) shows that none of the variables were statistically significant in equations 1 and 2 which respectively drops GFCF and GDP as explanatory variables. The reason for doing this is capital formation affects growth of gross domestic product. In regression equation 3, it is found that GDP and GFCF are statistically significant variables. The positive sign of GDP coefficient was contrary to expectation. It was expected that growth of GDP should help in reducing unemployment. The negative sign of GFCF coefficient was as per the expectation that any increase in investment should help in reducing unemployment.

Table 4.14(a) : Regression Results (I) Explaining Unemployment - 1976-1989

Equations	1	2	3
Constant	-24.39	-25.41	1.33
GDP at current prices	1.03 (1.92)	--	1.73 (2.62)*
GFCF at current prices	--	-0.74 (-1.62)	-0.87 (-2.37)*
Outflow of labour	4.81	5.78	-0.95
	(1.14)	(1.36)	(-0.22)
Inflow of labour	-0.66	0.0025	0.37
	(-1.56)	(0.0036)	(0.65)
R^2	0.89	0.88	0.92
F	35.97	32.90	41.00

Table 4.14(b) : Regression Results (II) Explaining Unemployment - 1976-89

Equations	1	2	3
Constant	-44.95	-10.24	-8.65
GDP at constant prices	0.0265	--	0.072
	(0.20)		(0.69)
GFCF at constant prices	--	-0.89	-0.94
		(-2.61)*	(-2.62)*
Outflow of labour	10.04	2.91	2.47
	(2.69)*	(0.93)	(0.59)
Inflow of labour	-0.85	0.25	0.31
	(-1.77)	(0.43)	(0.53)
R^2	0.85	0.91	0.90
F	25.48	44.98	32.11

Note: * denotes statistically significant at 1 percent level.

The negative signs of coefficient of outflow and the positive sign of coefficient of inflow were as expected. The values were however not statistically significant. Equation 3 explains 92 percent variation in unemployment and F value improves.

Regression equation 1 of Table 4.14(b) shows that outflow is the only statistically significant variable. The outflow of labour did not help in reducing unemployment as the coefficient has positive sign. In equation 2, where GDP is dropped as an explanatory variable, one finds that 1 percent increase in GFCF,

leads to 0.89 percent decline in unemployment. Both outflow and inflow were statistically insignificant variables. The model explains 91 variation in unemployment. Equation 3 which includes both GDP and GFCF, GFCF was the only statistically significant variable. The negative sign of the coefficient was as anticipated.

The results indicate that except GFCF all other variables had positive impact on unemployment. This confirms that if unemployment is to be reduced, Jordan would have to increase investment. Regarding the role of outflow and inflow nothing conclusive can be said, except that the unemployment would have been much more had the outflow of people not taken place. Thus only solution to tackle unemployment problem in Jordan is to increase in investment capacity.

The analysis indicates that for a relatively stable period outflow and inflow of labour may not have expected influence on unemployment. The history of Jordan reveals that migration of people did have impact on Jordanian economy from time to time. The detailed discussion on migration in the subsequent chapters would help analysing and locating problems related to labour market and issues concerning Jordanian economy in general.

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