

## **Impact of Inflation and GDP Growth on Unemployment Rate in Economy of Pakistan**

*Economics*

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### **1. Abstract**

*Human resource utilization is a crucial factor for the development of economy of a country but in underdeveloped countries like Pakistan underutilization of human resource is an important issue that harmfully affects the economy of the country. There are various macroeconomic variable supposed to be responsible for existence unemployment in Pakistan. Therefore, this study focused to analyze the trends in unemployment during last decade in Pakistan and to determine the extent at which macroeconomics variables (i.e. GDP growth rate and inflation rate) positively or negatively influence unemployment rate in country. Study also paying attention to develop policy recommendations to overcome the scenario of unemployment in economy of Pakistan.*

**Key words:** Gross Domestic Product (GDP), Inflation Rate, Unemployment Rate, Utilization

### **2. Introduction**

Human resource play significant role in economic enlargement of developed and underdeveloped countries of the world. Pakistan is sixth most populous country in the world having 60 percent economically active population (Economic Survey of Pakistan, 2012-13, p.166). Statistical figures

indicate that available human resource in Pakistan not properly utilized this lead to existence of high unemployment rate in the economy of Pakistan. There are various macroeconomic variable (including inflation and GDP growth rate) affects unemployment rates in the economy of Pakistan. Theoretically there is a relationship found between unemployment and Gross Domestic Product (GDP) growth rate. On other hand unemployment rate is also vastly associated with inflation. This study focused to evaluate the movements and influence of inflation and Gross Domestic Product (GDP) growth on unemployment rate in Pakistan. This research paper is divided into four different parts. Part one provides introduction, part two presents the summary of literature review. Part three provides research methodology. The final part based on the study results, conclusions and recommendations.

### **3. Review Literature**

“Unemployment comprises all persons 15 years of age and above who during the reference period were “without work”. Whereas, unemployment rate is the unemployed population expressed as a percentage of the currently active population” (Economic Survey of Pakistan, 2012-13, p11). Underutilization of human capital or unemployment rate negatively affects the economic development of the country. Pakistan is an underdeveloped country of the world its economy demands proper utilization of its available resources. However, high unemployment rates is persist in the country this lead to poverty, low investment and economic instability in the country. Underutilization of human resource of any country can be affected by various macroeconomic variables including inflation and Gross Domestic Product (GDP) growth rate. The relationship between unemployment with Gross Domestic Product (GDP) growth rate and with inflation discussed as following.

#### **3.1 Unemployment and Gross Domestic Product (GDP) Growth Rate**

High and sustained economic growth leads to the strong and stable economy of the country (Muhammad and Raza, 2013). Economic growth is a significant factor that has an effect on unemployment rate. Theoretically an optimistic relationship should be existing among economic growth and depressing with unemployment. “When recession hit an economy it not only reduces produced output but also leads to lying off previously employed workers. On the other hand, when an economy recovers from a recession it not only starts producing more output but also hires previously unemployed workers” (Mallik and Chowdhury, 2001). However, empirical relationship between unemployment rate and Gross Domestic Product (GDP) growth rate may be direct or inverse; it depends on the economic scenario of the country

during particular period of time. In 1962 Arthur Melvin Okun in his empirical analysis found significant inverse relationship between unemployment and gross Domestic Product (GDP) growth rate in a country (Zafar and Zahid, 1998). Tunah (2010) studied the macroeconomic variables and found significant positive impact of real Gross Domestic Product (GDP) on the reduction of unemployment rate in Turkey. El-Agrody et al. (2010) said that there is a considerable negative connection is found between unemployment and Gross Domestic Product (GDP) growth rate in Egypt. Pakistan has potential to overcome the problem of high unemployment rate by enhancing its national output. According to Jilani et al., (2010) in Pakistan during past decade, Gross Domestic Product (GDP) growth remain unstable this lead to high rate of unemployment in country.

### **3.2 Inflation and Unemployment**

Inflation is the continuous rise in the price with the passage of time and declination in the value of money (Economic Survey of Pakistan, 2012-13). According to Blejer (2000) and Qayyum (2006) inflation promotes uncertainty in economy of the country and due to high inflation in economy of any country government face difficulties in running policies efficiently. In past various theories and research studies have been presented in order to describe the impact of inflation on unemployment rate. The relationship between inflation and unemployment was first reported by A. W. Phillips in 1958 (Muhammad and Raza, 2013). Philips curve present the inverse relationship between unemployment and inflation rate. *“Inflation and unemployment both vary from economy to economy. Some economies have found high inflations related to higher unemployment. Some economies have found high inflation moderately related to unemployment and others high inflation with low unemployment” (Muhammad and Raz, 2013, p388).* High rate of inflation enlarges workers’ self-motivations to work & produces off-putting result on unemployment (Lui, 2009). Syed et al., (2009) analyze impact of inflation in economy of Pakistan and said that high inflation rate in persists in economy of Pakistan which has depressing impact on human resource utilization in the country.

To sum up Pakistan is rich in human resource but high unemployment rate endure in the economy. Gross Domestic Product (GDP) growth rate and inflation have significant impact on reduction of unemployment rate. Therefore, this study focuses to analyze the level at which growth in Gross Domestic Product (GDP) and inflation rate influence unemployment rate in Pakistan during last decade.

#### 4. Methodology

This research is paying attention on the empirical correlation involving inflation, GDP growth and unemployment rate in the economy of Pakistan. This research study is secondary data based therefore, annual time-series data for the period 2000 to 2012 have been taken. In order to examine the impact of GDP growth rate and inflation on unemployment, Ordinary Least Squares (OLS) was applied and regression model was prepared. The secondary data was taken for these variables from the website of State Bank of Pakistan and Economic Survey of Pakistan, 2012. SPSS and MS-Excel were used to analyze the data. The findings of this study would provide numerical facts for phenomena which help to improve and generate compatible initiatives.

Multiple Regression Equation:

$$y = b_0 + b_1x_1 + b_2x_2$$

Where:

y= dependent variable (i-e unemployment rate)

b<sub>0</sub>=intercept/constant

b<sub>1</sub> & b<sub>2</sub> = coefficient

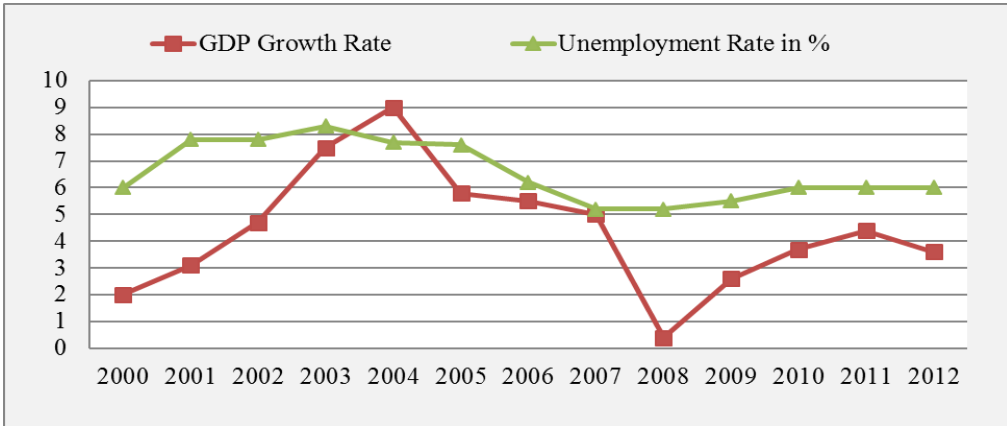
x<sub>1</sub>= Gross Domestic Product (GDP) growth rate

x<sub>2</sub>=inflation rate

#### 5. Findings

Fast economic growth enhances the economic activities and increases the employment opportunities in an economy which in turn reduce the unemployment rate. Unstable economy of under develop countries like Pakistan demands high and sustainable growth in Gross Domestic Product (GDP) but figure 1 confirms slow and fluctuated growth in GDP during past decade in Pakistan. Furthermore, Gross Domestic Product (GDP) growth rate and unemployment rate in Pakistan not appreciably enhanced. The major causes of high unemployment rate in Pakistan are the faster increase in population and low participation of women in labor market. On other side unequal income distribution, underutilization of available resource, energy crises, political instability leads to slow and unstable growth in output.

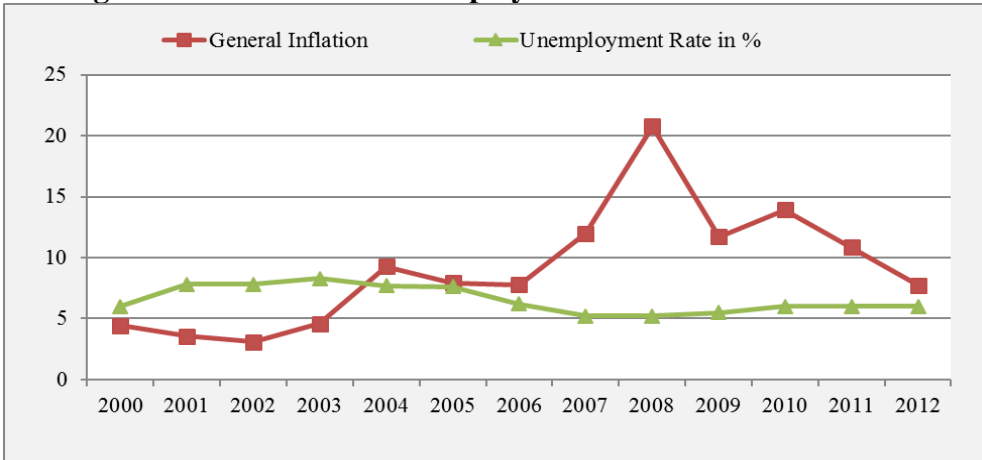
**Figure-1: GDP Growth Rate and Unemployment Trends in Pakistan n=13**



Source: State Bank of Pakistan & Economic Survey of Pakistan, 2012

Figure 2 present trends of inflation and unemployment rate in Pakistan during last decade without significant improvement in their relative positions. Ineffectual monetary policy, poverty, high demand, insufficient output production, underutilization of capital etc. leads to high inflation and high unemployment rate in the economy of Pakistan.

**Figure-1: Inflation and Unemployment Trends in Pakistan n=13**



Source: Economic Survey of Pakistan, 2012

It is general perceive that economic growth leads to reduction in unemployment rate. In figure 3 (A) regression line shows positive/direct relationship of GDP growth rate with unemployment rate within economy of

Pakistan. This shows that during mentioned time period, economic growth has not that powerful impact which can trim down the unemployment rate in Pakistan. Whereas, in figure 3 (B) regression line for inflation rate & unemployment highlights falling trend, this indicative that during last decade in Pakistan increase in price makes economic activities fast and create more employment opportunities for peoples. Value of person correlations (i.e. 0.63) indicates that unemployment rate has positive relationship with GDP growth rate in Pakistan. It is mentioned that growth in GDP plays very important role to prevail over the difficulty of unemployment but only growth in GDP not sufficient. There are some other factors also have considerable impact in order to reduce unemployment rate such as proper utilization of recourses and effective control of quick growth in population however, these are the major issues in economy of Pakistan.

**Figure-3: Regression line for Inflation-Unemployment Rate and GDP Growth Rate-Unemployment Rate in Pakistan N=13 Years (2000 to 2012)**

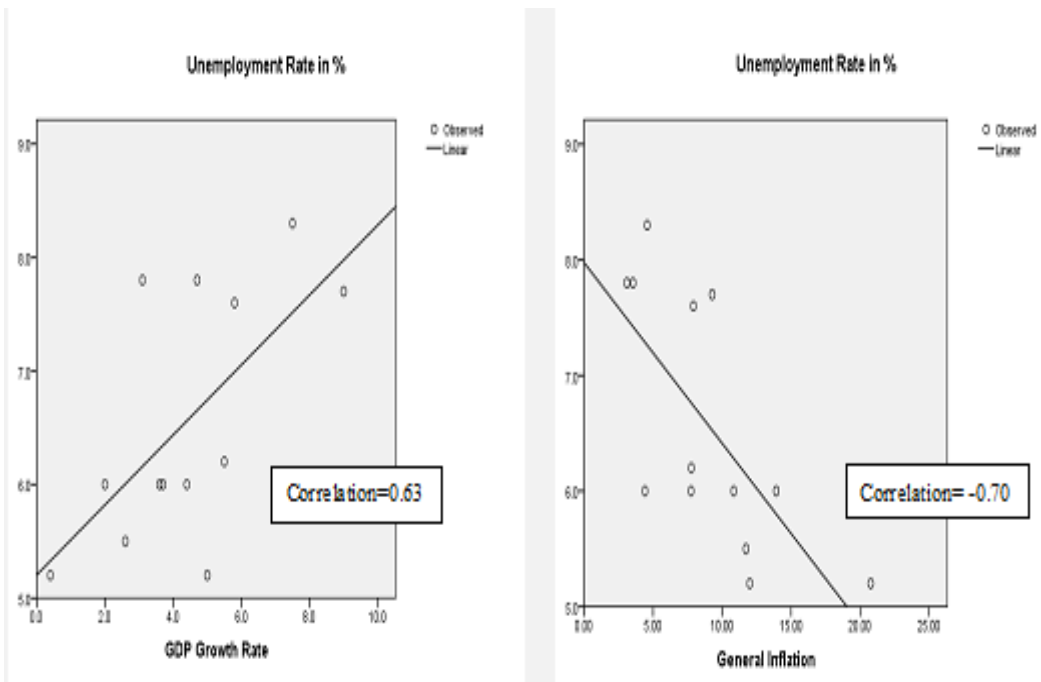


Table 1 presents summary of empirical results for regression model. Value of R square (i-e 0.64) indicates that 64% variations in unemployment rate in Pakistan during last decade is explained by this regression model. The value

of F-Statistics (i.e. 9.037) indicates that the equation as a whole is statistically significant in explaining relationship between dependent (i.e. unemployment rate) and independent variables (i.e. inflation and GDP growth rate).

**Table-1: Summary of Empirical Results for Regression Model**

Statistical Measures	Results
R Square	.644
Adjusted R Square	.573
F-statistics	9.037*

- Significant at 0.01 level

In table 2 values of t-statistics for both independent variables is significant however, Gross Domestic Product (GDP) growth rate has positive impact and Inflation rate has negative impact on unemployment rate in Pakistan. The value of B coefficient for Gross Domestic Product (GDP) growth shows that average decrease of unemployment rate (i.e. 0.209) is associated with one percent decline of real GDP growth. The value of B coefficient for general inflation shows average decline of unemployment rate associated with a rise of 0.119 percent of inflation rate.

**Table-2: Variables in Equation for Regression Model**

Model	Un standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.718	.736		9.123	.000
Gross Domestic Product (GDP) Growth Rate	.209	.099	.431	2.408	.041
General Inflation	-.119	.046	-.532	-2.604	.026

Dependent Variable: Unemployment Rate in %

The success of government policies is reflected in price stability, high Gross Domestic Product (GDP) growth and near to the ground unemployment rate. However, review of literature and the findings of this study highlights that

inflation and economic growth have significant impact on unemployment rate in economy of Pakistan. The values of statistical measures (i.e. F-statistics and R-square) confirm the validity of regression model.

## 6. Conclusion

High unemployment rate is a foremost issue of weak and unstable economy of Pakistan; this is due to off-putting impact of a range of macroeconomics variables (such as price instability, low growth in GDP, limited contribution of women in labour force and high growth in population etc). This study has examined the impact of inflation and GDP growth rate on unemployment rate in Pakistan. The empirical analysis shows that both independent variables have significant impact on prevailing unemployment rate in Pakistan. However, the correlation between unemployment and inflation is negative (i.e. -0.70). On other side correlation between Gross Domestic Product (GDP) and unemployment rate is positive (i.e. 0.63). Therefore, it is recommended that Government of Pakistan have to formulate it's both fiscal and monetary policies more effective in such a way that inflation would come down and economic growth become much faster that generate opportunities of employment and diminish poverty level. It suggested that home and foreign investment should be encouraged for getting speedy economic growth and low unemployment rate. There is need to amplify female labour force sharing and to control quick enlarge in population growth.

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