Macroeconomic factors influencing unemployment in Albania

Loreta ISARAJ[1], Meleq HOXHAJ[2]

Cite as: Isaraj, L., Hoxhaj., M. (2021). Macroeconomic factors influencing unemployment in Albania. Romanian Journal of Economics, 2(62), 56-67

***Abstract**: The aim of this paper is to analyze and better understand some of the main macroeconomic factors that affect unemployment in Albania. In Albania Unemployment is no longer at extreme levels of recent years, but it is still at a high level and a problem for the Albanian economy and society. We have used data for some of the main macroeconomic indicators obtained from the World Bank for the period 1991-2020, processed by EViews statistical program. The empirical results show that the link between unemployment and economic growth and link between inflation and unemployment is weakly positive, meanwhile trade has a negative impact on unemployment.*

***Keywords**: Unemployment; Albania; GDP; Inflation; Trade.*

***JEL Classification**: J64, O40, E31, F10.*

1. Introduction

Unemployment is a global problem with economic and social implications that affects every country, regardless of development levels. Unemployment is defined as the proportion of individuals who are able to work and actively looking for work but are unable or face difficulties to find it. Long-term unemployment inevitably leads to financial difficulties, poverty, homelessness, criminality, frustration, and a slew of other issues such as family breakup and conflict, social isolation, loss of confidence and self-esteem. All of this contributes to the deterioration of a healthy society.

Unemployment is currently one of the most serious issues facing Albania. In fact, the unemployment rate in Albania is 11.7 percent, which is very high, but has fallen since 2014,

[1] PhD Candidate, University of Roma "Sapienza", Italy. E-mail: loretaisaraj@gmail.com

[2] Independent Researcher, Fier Albania. E-mail: meleqhoxhaj1@ gmail.com

when it was 18.06 percent.[3] Although females continue to outnumber males in this rate, the number of employed females in Albania is growing by the day. Numerous studies have been done on unemployment in Albania, which have analyzed the causes and consequences of this phenomenon and the main factors related to unemployment.

The main objective of this study is to examine the link between GDP growth, inflation and trade with the level of unemployment in Albania, in order to better understand the causes and to serve as a guide for internal policy makers. For our research, we have used World Bank data for some major macroeconomic variables during a recent 30-year period which constitutes the whole period of prolonged transition from the centralized economy under the communist regime to the free market economy.

2. Literature Review

Numerous studies have been done on unemployment and the various macroeconomic indicators that affect it. Smith (1975), Palley (1993), Attfield & Silverstone (1998), Harris & Silverstone (2001), Huang & Lin (2008), and Huang & Yeh (2013) all agree that real economic growth and unemployment are inversely related. In their study of data from the United States from 1947 to 1999, Silvapulle et al. (2004) discovered that the influence of economic growth on unemployment was larger during periods of economic recession.

Moosa (1997) examined Okun's law to investigate the response of economic growth to unemployment for G7 countries. According to the study, Okun's coefficient was determined to be high in North America and low in Japan. This was because of differences in labor market rigidities. William (2005) calculates the relationship between employment and real GDP growth in ten developed nations. The findings of the search show that economic growth has a direct impact on employment. When the economy grows, it creates more jobs and raises living standards. When the economy grows, it has a substantial influence on employment growth, and greater employment contributes significantly to economic growth. Oluyomi and Ogunrinola (2011) investigated the link between employment and economic growth in Nigeria from 1986 to 2010, and discovered a positive and substantial association between employment and the economy's real GDP.

Kareem (2015) investigated the link between employment and economic growth in Nigeria, and the findings revealed that foreign direct investment, inflation, and interest rates all had a positive association with the economy's employment rate. Phillips Curve is one of the strongest explanations for the relationship between inflation and unemployment rate. It illustrates an inverse and negative link between an economy's unemployment rate and inflation in the short run, but has no influence on unemployment in the long run since it assumes natural unemployment rate in the long run. An economy's unemployment rate rises

[3] https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS?locations=AL&view=chart

when inflation falls, or vice versa. From 1977 to 2009, Umaru and Zubairu (2012) studied the connection between inflation and unemployment in Nigeria.

The Johansen cointegration technique and the Grange Causality test were utilized in the investigation. According to the findings, there is a negative link between inflation and unemployment in Nigeria. The causality test revealed that there was no relationship between inflation and unemployment in Nigeria throughout the research period. Ortansa (2014) investigated the relationship between inflation and unemployment among Romanian youth aged 20 to 24 years old across time. The data indicated that the relationship between inflation and youth unemployment was not reverse nor direct; nevertheless, a reversal connection, as desired by Philips, was detected in certain years. In practice, these two inequalities reacted differently to economic policy efforts. As a result, concentrating on just one injustice is impossible. Eita and Ashipala (2010) studied the factors of unemployment in Namibia from 1971 to 2007. For the unemployment model, they used macroeconomic factors. According to the findings, there is a negative link between unemployment and inflation in Namibia.

The link between trade openness and unemployment has recently become a very hot issue in the economic sector. Economists observed that openness might have a significant impact on the rate of employment. Felbermayr et al. (2011) explore the link between trade openness and unemployment rates using three methods: panel regression with 20 affluent OECD countries, cross-sectional regression on a broader collection of countries, and panel regressions (large sample). According to the study, greater trade openness leads to a decrease in the unemployment rate. This implies that openness has a negative association with the unemployment rate. Using labor force survey data from India, they analyze the link between trade and unemployment at the state level and the association between trade and unemployment at the industry level, which is similar to the notion of Hasan et al., (2012). They also pay attention to the various effects of trade on the unemployment rate when they focus on the amount of labor market flexibility, the kind of labor, and the level of share in net exporter. The results of this research reveal the negative relationship between urban unemployment and trade liberalization in states with a flexible labor market and a higher employment share in net exporter industries. As a result, Hasan et al. (2012) argue that, at the state level, trade liberalization will reduce unemployment in states with a flexible labor market and a higher employment share in six net exporter industries. As a result, according to Dutt P. et al. (2009), first, in the Ricardian model, opening up to trade leads to a drop in unemployment. Second, according to Heckscher-Ohlin, opening up to trade causes a rise in unemployment in capital-rich nations, but a drop in unemployment in labor-rich countries. Third, in Panel data, trade liberalization has an influence on unemployment by increasing it in the short term but subsequently decreasing it in the long run. Although there are many diverse perspectives on the link between openness and unemployment, the vast majority of economists feel that openness has a negative association with unemployment.

There is a growing empirical literature that focuses on the link between the unemployment rate and the labor force participation rate within the context of macro econometrics. Sterholm (2010), in a pioneering empirical research, uses the Johansen cointegration technique as empirical methodology to investigate this relationship for Sweden. The author utilizes both aggregated and gender-specific data to support the discouraged-worker effect. Hoxhaj (2017) use regression analysis in his study of youth unemployment in Albania for a 24-year period. Results show that labor force rate has a positive impact on youth unemployment.

Emerson (2011) and Kakinaka and Miyamoto (2012) investigate this link between factors in the United States and Japan, respectively, using the same analytical approach. They find that there is a discouraged-worker impact for middle-aged and old male groups, as well as an added-worker effect for young males. As a result, their findings suggest that changes in the unemployment rate impact labor force participation decisions differentially across age groups. Emerson (2011), like Sterholm (2010), finds a discouraged-worker impact in the United States using aggregated and gender-disaggregated data. The long-run relationship between unemployment and labor-force participation appears to be negative: countries with low unemployment have high participation rates, with Japan and, until recently, Sweden as notable examples; on the other end of the spectrum, countries with high unemployment have low participation rates, with Spain and Ireland being notable examples.

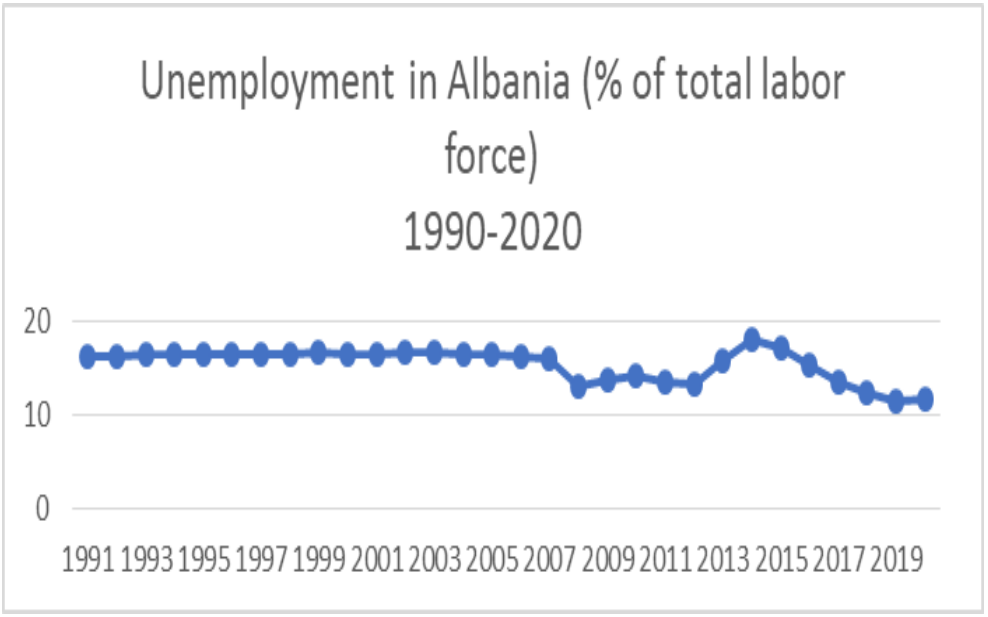
3. Situation in Albania

I. Unemployment

During communism, the structural economic orientation toward agricultural goods and heavy industries, which could be found in every part of the country, enabled total employment in both rural and urban regions. After the 1990s, as a result of macroeconomic reforms and economic restructuring, Albania, like all other nations in economic transition, saw a decline in labor-force participation. Also, unemployment grew considerably after the 1990s, owing mostly to changes in the economy's structure and the failure of several state-owned companies. As seen in the table below, during the early years of democracy (after the 1990s), unemployment was high and consistent (over 15 percent). The biggest improvement occurred in 2008, when unemployment reached its lowest level since the system's transition, hitting 13.06 percent, owing mostly to the considerable improvement in the country's economic position.

After 2008, unemployment increased again, reaching in 2014 the highest level until then (18.06%), one of the possible reasons for this situation is the change of government in 2013 and the beginning of numerous reforms in various sectors of the economy and also the dismissal for political reasons of many employees of the administration. Currently the situation is towards a significant improvement with unemployment at the level of 11.7% in 2020. Figure below shows the trend of unemployment from 1991-2020 in Albania.

Figure 1: Unemployment in Albania, 1990-2020 (ILO Estimate)



Source: World Bank

II. Gross domestic product

As can be seen in the figure below, GDP fell sharply following the changeover. Between 1990 and 1992, the collapse of several state-owned companies meant that nothing was produced in Albania. Since 1993, the economy has been undergoing a rapid rebound, with growth rates approaching 10%.

This was due to a combination of effective macroeconomic stability, pricing and trade liberalization, and agricultural land privatization, since agriculture accounted for the majority of growth during this period. The country's economic performance was strong in 1995, as evidenced by over 10% increase in GDP, but the economic situation deteriorated dramatically as a consequence of pyramid scams, in which most Albanian households lost their money.

In the years afterwards, economic growth has been robust and consistent, reaching 7.49 percent in 2008, mostly due to substantial local and international investments. Due to the coronavirus crisis, the country was closed for many months in 2020, resulting in a deterioration of the economic situation and negative economic growth (economic decline).

Figure 2: GDP Growth in Albania, 1990-2020 (annual %)

Source: World Bank

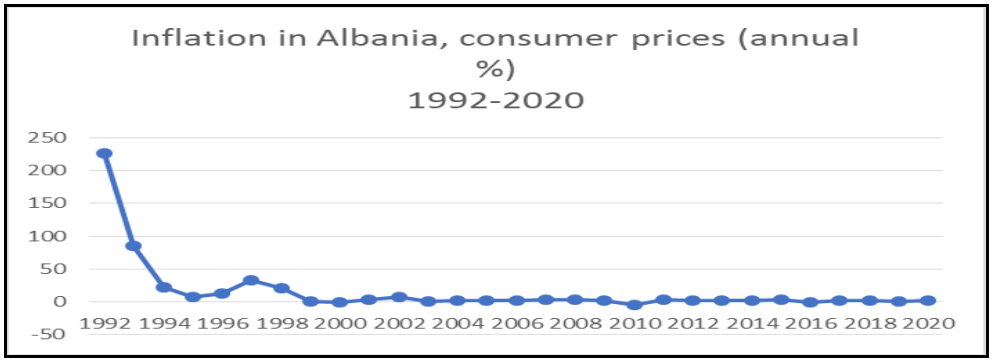
III. Inflation

With the fall of the communist system due to the non-functioning of state-owned enterprises and the difficult economic situation, food shortages led to a 3-digit inflation rate (record 226% in 1992) leading to a devaluation of the local currency.

In the years that followed, the situation improved; in 1995, inflation in Albania was 6%, the second lowest among the transition countries after Croatia. The reason for this improvement was the favorable macroeconomic developments of 1993-1995 and the reforms implemented; nevertheless, in 1997, inflation in the two-digit range (33.18%) was caused by weak financial policies, sluggish growth, and the collapse of pyramid schemes (Ponzi scheme).

The inflation in Albania may be characterized not as cost-pushed, but more a demand-pull inflation. In the following years, inflation has been stable and at rates close to the 3% target of the Bank of Albania.

Figure 3: Inflation in Albania, 1990-2020 (consumer prices annual %)



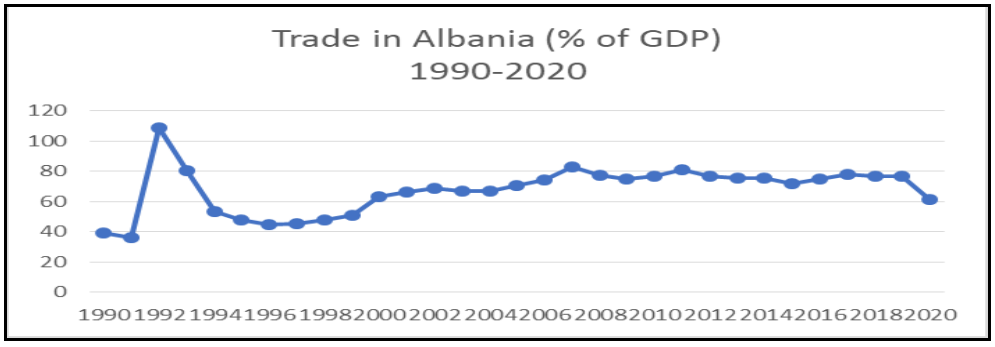
Source: World Bank

IV. Trade

The first years of transition in Albania, 30 years ago were characterized by a severe economic downturn and declining agricultural production. Albania, a prime example of a completely isolated country, became a free-market economy and an open country for international trade (trade of goods and services).

The highest level of trade was recorded in 1992 at a rate of 108.78% of GDP, which means that trade was at a higher volume than domestic production or otherwise the country was completely dependent on trade, this is explained by the fact of lack of domestic production especially of basic food products. In the following years and currently the country has trade relations with countries from all over the world. The level of trade is stable at a rate of 60-80% of GDP.

Figure 4: Trade in Albania, 1990-2020 (% of GDP)



Source: World Bank

4. Methodology

This paper is based on a combination of literature review and quantitative analysis of time series data. Data that we used for the regression model are secondary data in percentage obtained from the World Bank. Database is in the form of time series with an annual frequency for an interval time of 30 years, specifically 1992-2020.

All econometric analysis calculations are performed in EViews statistical software. In order for us to have a relevant model, the test we performed was ADF Unit Root test. To see the impact of the variables analyzed on unemployment we did a regression using the Least Squares Method.

5, Results

Based on the research made on the existing literature we created the econometric model that will be used in this paper. The model includes as dependent variables: UNEMP (unemployment rate) and as independent variables: INFLAT (inflation), GDP Growth (GDP growth rate), TRADE (trade), LFPRATEM (male labor force participation rates) and LFPRATEF (female labor force participation rates), **ε** present all variables that are not included in our model.

UNEMP = □ + □TRADE + □INFLAT + □ LFPRATEM + □LFPRATEF + □ GDP_GROWTH + **ε**

Figure 5: Unit Root Test Results

Augmented Dickey Fuller test results		
Variable	t-Statistic	p value
GDP_GROWTH	-5.672520	0.0001
INFLATION	-3.648867	0.0108
LFPRATEM	-1.782940	0.3811
LFPRATEF	-2.015744	0.2788
TRADE	-4.069213	0.0039

Source: Authors` elaboration

The table above presents the results of statistical analysis for the variables included in the study. From the table we see that the p-value obtained is greater than significance level of 0.05 and the ADF statistic is higher than any of the critical values for labor force participation rate for male and female. These two variables are non- stationary and consequently we will

not include them in our model. The final regression will consist of variables such as inflation, GDP growth and trade openness. Excluding non-stationary data and variables, the final model is with 3 variables as follows:

UNEMP= □ + □ TRADE + □ INFLAT+ GDP_GROWTH + **ε**

Figure 6: Descriptive statistics for the final regression

Date: 07/28/21 Time: 22:12
Sample: 1991 2020

	GDP_GRO...	INFLATION	TRADE
Mean	3.256374	15.39962	68.47943
Median	4.305631	2.368655	73.03407
Maximum	13.32233	226.0054	108.7855
Minimum	-28.00214	-4.298475	36.07052
Std. Dev.	7.785607	43.05751	14.90595
Skewness	-2.366320	4.229438	-0.090269
Kurtosis	10.03361	20.67128	3.602439
Jarque-Bera	89.83700	479.7834	0.494409
Probability	0.000000	0.000000	0.780981
Sum	97.69121	461.9887	2054.383
Sum Sq. Dev.	1757.855	53764.54	6443.435
Observations	30	30	30

Source: Authors` elaboration

Figure 7: Final regression results

Dependent Variable: UNEMPLOYMENT_RATE
Method: Least Squares
Date: 07/28/21 Time: 22:27
Sample: 1991 2020
Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	19.07747	1.516349	12.58118	0.0000
GDP_GROWTH	0.054797	0.040635	1.348510	0.1891
INFLATION	0.018657	0.008081	2.308872	0.0292
TRADE	-0.059914	0.022840	-2.623215	0.0144

R-squared	0.249296	Mean dependent var	15.44033
Adjusted R-squared	0.162676	S.D. dependent var	1.763041
S.E. of regression	1.613278	Akaike info criterion	3.917979
Sum squared resid	67.66930	Schwarz criterion	4.104805
Log likelihood	-54.76968	Hannan-Quinn criter.	3.977746
F-statistic	2.878050	Durbin-Watson stat	0.523713
Prob(F-statistic)	0.055216		

Source: Authors` elaboration

Based on the coefficients presented in the table above, the model is transformed as follows:

UNEMP=19.07747 + 0.054797GDP_G + 0.018657INF - 0.059914TRADE + **ε**

The link between economic growth and unemployment is positive. Growth by 1 per cent (1%) in the growth rate brings a 0.0547 per cent (0.054%) increase to the unemployment rate.

The link between inflation and youth unemployment is positive. Growth by 1 per cent (1%) in the inflation brings a 0.0186 per cent (0.0186%) increase to the unemployment rate.

The link between trade and youth unemployment is negative. Growth by 1 per cent (1%) in the trade brings a 0.0599 per cent (0.0599%) decrease to the unemployment rate.

Conclusions

The analysis developed in this article shows that despite the significant improvement in recent years, unemployment still remains at high levels of concern for the Albanian economy, emphasizing that in 2020 the unemployment rate was relatively high with a value of 11.7 percent. The gross domestic product increased steadily over the years, with the exception of 2020, when it fell owing to the pandemic. It is worth noting that, despite a continuous growth, the gross domestic product has not contributed to the decrease of unemployment. On the other hand, the level of trade has a negative impact, but not a very significant one. The consequences of unemployment in the economy are numerous, such as economic, social and psychological. On the other hand, as our analysis indicates, it is a complex phenomenon and not easy to control simply with the growth of the economy. It is necessary for specific, direct and indirect policies to promote employment. Creating special funds and providing fiscal facilities are some of the possible policies to be undertaken. For the Albanian reality, in the long run it is necessary to pay more attention to the increase of the quality of the workforce through training programs and continuous qualifications in close collaboration between businesses, educational and government institutions. We see that the macroeconomic factors included in our analysis do not adequately explain the performance of unemployment, so there is a need for further studies that will include a large number of macroeconomic factors that may explain unemployment.

Previous studies have analyzed the relationship between key macroeconomic indicators and unemployment. Respectively Chen Li Xuen et al. (2017) found that factors such as population and GDP growth have a significant and long-run effect relationship with unemployment rate whereas inflation and foreign direct investment do not have significant effect on unemployment rate.

The result of our research on the positive relationship that exists between inflation and unemployment over the long 30-year period we have examined does not support the Phillips curve which shows us the existence of the opposite relationship between inflation and unemployment. This can be explained by the opinion of Milton Friedman and Edmund Phelps that the Phillips curve is a short-term effect.

References

Akeju, K. F., & Olanipekun, D. B. (2015). Unemployment and Economic Growth in Nigeria. International Journal of African and Asian Studies, (11), 92-98.

Alisa, M. (2015). The Relationship between inflation and unemployment: a theoretical discussion about the Philips Curve. Journal of International Business and Economics, 3(2), 89-97.

Al-Habees, M. A., & Rumman, M. A. (2012). The Relationship Between Unemployment and Economic Growth in Jordan and Some Arab Countries. World Applied Sciences Journal, 18(5), 673-680.

Anjum, N. & Pervaiz, Z. (2016). Trade openness, economic growth and unemployment reduction in Arab region. Bulletin of Business and Economics, 5(1), 44-58.

Asaleye, A.J., Okodua, H., Oloni, E.F., Ogunjobi, J.O. 2017. Trade Openness and Employment: Evidence from Nigeria. Journal of Applied Economic Sciences, 4(50), 1194-1209.

Bakare, A. S. (2011). The determinants of urban unemployment crisis in Nigeria: An Econometric analysis. Journals of Emerging Trends in Economics and Management Sciences, 2(3), 184-192.

Cashell, W. B. (2004). Inflation and unemployment: What is the connection?". Federal Publications. Swedish Economic Policy Review, 7(2000), 107-153.

Dutt P., & Mitra D., & Ranjan P. (2009). International trade and unemployment: Theory and cross-national evidence. Journal of International Economics, (78), 32-44.

Eita, J. H., & Ashipala, J. M. (2010). Determinants of Unemployment in Namibia. International Journal of Business and Management, 5(10), 92-104.

Emerson, J. (2011). Unemployment and labour force participation in the United States. Economics Letters, 3 (111), 203–206.

Englama, A. (2001). Unemployment: Concepts and Issues. Bullion Publication of the Central Bank of Nigeria, 25 (4), 1-6.

Hoxhaj, M. (2017). Youth unemployment in Albania, causes and consequences. EuroEconomica, (36), 159-168.

Kakinaka, M., & Miyamoto, H. (2012). Unemployment and labor force participation in Japan. Applied Economics Letters, 19 (11), 1039–1043.

Kreishan, F. M. (2011). Economic Growth and Unemployment: An Empirical Analysis. Journal of Social Sciences, 7(2), 228-231.

Kyei, K. A., & Gyekye, K. B. (2011). Determinants of Unemployment in Limpopo Province in South Africa: Exploratory Studies. Journal of Emerging Trends in Economics and Management Sciences, 2(1), 54-61.

Maximova,A. (2015). The Relationship between Inflation and Unemployment: A Theoretical Discussion about the Philips Curve. Journal of International Business and Economics, 2(3), 89-97.

Misini, S. & Badivuku, M. (2017). The effect of economic growth in relation to unemployment. Journal of Economics and Economic Education Research, 2(18), 1-9.

Murtin, F., & Robin, J. M. (2018). Labour market reforms and unemployment dynamics. Labour Economics, (50), 3-19.

Nwaka, I. D., & Uma, K., & Tuna, G. (2015). Trade Openness and Employment: Empirical Evidence for Nigeria. The Economic and Labour Relation Review, 1(26), 117-136.

Noman, M.G. (2021). Effect of International Trade on Unemployment in the Context of Bangladesh. International Journal of Research and Analytical Reviews, 1(8), 907-914.

Österholm, P. (2010). Unemployment and labour-force participation in Sweden. Economics Letters, 3(106), 205–208.

Shoraj, D. & Kolaneci, F. (2012). Test of Okun's Law in Albania during the period 1995-2010. Euroacademia Global Forum of Critical Studies.

Thayaparan, A. (2014). Impact of Inflation and Economic Growth on Unemployment in Sri Lanka: A Study of Time Series Analysis. Global Journal of Management and Business Research: B Economics and Commerce, 5(13), 44-54.

Turco A. L., & Maggioni D. (2013). Does trade foster employment growth in emerging market? Evidence from Turkey. World Development, (52), 1-18.

Umaru, A. & Zubairu, A.A. (2012). The Effect of Inflation on the Growth and Development of the Nigerian Economy (An Empirical Analysis). International Journal of Business and Social Science, (3), 18-19.

Warrad, T., A. (2018). Effect of Trade Openness on Unemployment in Case of Labour and Capital Abundant Countries. International Journal of Economics and Financial Issues, 8(1), 173-183.

Yildirim, Z. (2014). The Unemployment Rate and Labour Force Participation Rate Nexus for Female: Evidence from Turkey. International Journal of Economics and Finance, 5(6), 139-146.