



Globalization and Macroeconomic Instability: Evidence from Unemployment in Pakistan

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ARTICLE DETAILS	ABSTRACT
<p>History Revised format: May 2019 Available Online: June 2019</p> <hr/> <p>Keywords Globalization, Employment Elasticity, ARDL, Pakistan.</p> <hr/> <p>JEL Classification: C30, E24, F60</p>	<p>Growing population in the present globalized world is a challenge for the developing to engage the increasing labour force in productive environment. The creation of new employment opportunities is not easy to handle with existing resources (lack of capital both physical and financial) and became a more intense challenge for policy maker. Fairley free transaction also affect employment/unemployment in developing countries. Therefore, this study aimed to examine the impact of globalization on unemployment in case of Pakistan for the period of 1980-2017. Globalization is measured by three different forces i.e. Trade flows, FDI flow and Remittances flow. To estimate the responsiveness of unemployment to globalization ARDL co-integration techniques is employed. Bound test confirmed co-integration relationship between the variables under consideration. The results of short run and long run estimates showed that globalization forces affected unemployment in Pakistan. Globalization in the shape of trade affects unemployment directly while the impact of remittances is negative to unemployment. The impact of FDI is positive but insignificant. Therefore, this study suggests that proper attention should be paid toward policy formulation regarding trade and remittances inflow to increase employment opportunities in Pakistan. Globalization should be perused with adequate policies that will certainly smooth macroeconomic environment of Pakistan.</p> <p style="text-align: right;">© 2019 The authors, under a Creative Commons Attribution-NonCommercial 4.0</p>

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1. Introduction

The world globalization was first used in a newspaper in 1961, and got popularity in the last quarter of the 20th century. The term globalization is debated in the contemporary academic and research because of its variant nature. It has economic, geographical, political and social aspects. Therefore, its causes and consequences are reported different to different economies. Due to its diverse nature different academics exports and researcher are not agreed on a unique definition¹ and its causes and consequences (Ali, 2013; Afzal, 2007). Its impacts are different on different economies (developed and developing) depending the on the nature and composition of the countries, it is beneficial for resource oriented and highly equipped economies, its effect are not even the same for developing economies, even it impact is variant in the same country (Ali et al., 2015). There are some Similarities and dissimilarities are existed. But most of them are nearly agreed on that Globalization is the unification and merger of the world's economies through cross-border transaction of products and resources (Nayyar, 2001; UNCTAD, 2000

and World Bank, 2004). It has various dimensions i.e. economic, cultural, political and social. In fact, cultural amalgamation hurts cultural integrity.

1.2 Globalization's Measure

The present study is dealing with globalization in the context of economics. Therefore, economic aspects of are discussed here. These aspects are trade transaction financial transaction (proxy by FDI) and labour migration (proxy by inflow of remittances). These measures are defined as:

- Trade: Trade is measured by the integration of export and import of Pakistan in million Dollars.
- FDI: Foreign Direct Investment is measured by inflow of direct investment in millions of Dollars to Pakistan.
- Labour Migration: Is proxy by the inflow of remittances to Pakistan in millions of Dollars.

1.3 Globalization's History

The term globalization is concerned with the development and progress technology. The study of the globalization's history tells us that the phenomenon of globalization is the outcome of development and advancement in technology. The study of the world economic history was of the view that globalization has two episodes: 19th century episode and 20th century episode. Both the episodes globalization witnessed incredible inventions and advancement in technology.

Those inventions and advancements in technology brought the world closer and closer. Some treaties were also responsible for the integration of different economies of the world under suitable conditions. The liberalization or minimization on cross border restriction of goods and services, capital is known as globalization. Most of the economic spectators were of the view that the process of globalization has two episodes.

These episodes are identified by different economic experts like Baldwin and O'Rourke (2000), Maddison (2001), Nayyar (2001) Williamson (2002), Mostert (2003), Solimano and watts (2005) and Daudin, Morys and O'Rourke (2008). These episodes are:

- The 19th century episode of globalization and
- The 20th century episode of globalization.

The second half of the 19th century witnessed a huge integration of the world economies in trade, capital and people migration, especially in 1870s. The period of 1870 to 1914 (Pre-World War 1st period) was considered the first episode of globalization. The globalization's process was strengthened by the forces of new technological innovation and advancement in means of communication. Production and factor of production were more mobile in this period, even passport and visa obligations were not mostly required and very few barriers on funds flow (financial integration). The pace of integration forces were slowdown between World War-I and World War-II's period. The period witnessed various restrictions and barriers on flow of goods and Services, capital and people mobility to prevent domestic economy from foreign competition. Isolation (free from foreign competition) was considered the way to flourish their economies bitterly. After World War-II the process of integration started once again. This integration was very slow at the beginning but got acceleration in the last quarter of the 20th century. After WW-II all the developed countries decided that they would not repeat the previous committed mistakes; but it took enough time to achieve the same position of pre WW-I period. Most of the new independent developing economies from the colonial power immediately after WW-II adopted import substitution industrialization (ISI) policy. The Soviet Union (USSR) community was also protected; different barriers were put on international transaction. But the time has changed, in the last quarter of the 20th century; the phenomenon of globalization has started with greater strength. The Soviet Union bloc is getting integrated with the rest of the world. Developing countries are also turned towards more globalized policy to get economic growth. Yet, most studies were of the view that the today economy is more globalized on term of trade and capital markets than the 19th century globalization while less globalized in term of people mobility. Therefore 19th century period of globalized in term of factor of production, while 20th century period of globalization is more globalized in term of production and capital. However, the 20th century episode of globalization is of more important than the 19th century episode, due to its nature and pace. The 20th century episode of globalization is not only due to its rapid pace and characterized by the considerable development in new information technologies on market integration, efficiency and industrial organization, but international organization and institutions like World Bank, International Monetary Fund, World Trade Organization etc. are involved to maintain and keep in view its different consequences². Weather it affect

both the developing and developed world similarly are not. It was observed that desirability of the process of globalization is different among the developing countries due to their social, political, environmental and geographical situation. Hence the impacts of globalization are different due to it's their participation in the process of globalization.

1.4 Globalization and Pakistan

Pakistan came to its existence on 14th of August 1947. The new independent country faced so many challenges at the start. For a nascent country it was difficult to compete at international market. Therefore, the economy was kept isolated in the initial about two and a half decades. Import substitution industrialization policy was practiced and extensive restrictions were used to protect domestic economy. Green revolution policy was adopted in the decades of 1960s, which turned in tremendous growth. With the emergence of Bhutto's regime in 1970s the policy of nationalization was adopted. Export bonus scheme was introduced to encourage domestic production. The liberalization of economy was started in Zia's regime in 1980s with the help of World Bank and International Monetary Fund. Trade restrictions were reduced at a huge amount and environment for international investment was prepared but implemented in 1990s. Facts and figures regarding liberalization are given in table-1.

Table 1: Tariff Reforms in Pakistan

Year	Max Tariff Rate	No's of Slabs	Ave** Tariff Rate	Ave Rates (%)*
1987	250	17	77	--
1989	125	17	65	44
1991	95	17	65	40
1994	80	13	56	39
1995	70	13	50	32
1998	65	05	45	22
1999	50	05	25	17
2000	35	04	20	16
2002	25	04	17	11
2004	25	04	16	13

Source: National Tariff Commission, CBR and WDI.*Custom duty and import tariff as % of total revenue (WDI). **Ave stands for average

It clear from above table that during the period of 1986 to 2004 trade restriction were reduced at a very huge amount maximum tariff rate were reduced from 250% to only 25 % and the number of slabs were reduced from 17 to only 4 and average tariff rate was reduced from 77 % to only 16%. Such reduction leads to increase in trade and might affect FDI positively. It should be noted that what happened to the forces of globalization. The forces of globalization are given in the following table.

Table 2: Openness Statistics in Pakistan

Year	Trade	Remittances	FDI
1980	30.399	8.343	0.142
1985	27.190	8.638	0.261
1990	29.998	5.509	0.599
1995	30.001	3.399	0.809
2000	29.102	1.499	0.689
2005	32.013	4.109	1.471
2010	36.008	5.018	2.892
2015	32.832	6.409	0.689
2017	28.064	7.680	==

Source: World Bank (WDI) and Economic Survey 2016 & 2017.

The bird's eye view of the table-2, discloses the trend in globalization forces regarding Pakistan. Trade, FDI and Remittances as percentage of GDP are shown of percentage of GDP an average of every five year. Trade and Remittances first showed a decreasing trend and then increasing trend. While FDI showed an increasing trend and then decreasing in 2010s and 2016-17 periods.

1.5 Globalization and Employment

Plethora of literature regarding globalization emerged in the last three decades; most of the literature is concerned with the impacts of it on growth, development, inequality etc. it is considered as communication built for economic growth, because it provides access to foreign technology, capital and market. All these opportunities ensure growth (Afzal 2007, Ali et al 2013). But growth was also tested against volatility, in some of the recent studies and it was found negatively related (Kose et al., 2005). The association Globalization with employment was first introduced by Rodrik (1999). Employment of the country depends on trade composition and policy regarding it. Developing country’s labour is mostly unskilled and semi-skilled, and it was observed that the unskilled workers are badly affected by import liberalization. Because the import of capital intensive commodities required relatively high skill workers and also replace labour by capital, employment demand favored skilled workers (Crankshaw, 1997).

This huge reduction in trade barriers leads to more open domestic market for foreign production and may affect the employment situation of the country. More import compare to export may affect employment status adversely. On the other hand the increase in export and its demand at international market might leads to the maximum utilization of production resources, affect positively (increased) output and employment of the domestic economy. The increase in national output in reverse increase the demand for foreign product (imported goods) affect employment badly. Remittances and FDI might increase employment rate due to the increase in consumption of domestic goods and by an increase in private investment. Huge remittances might increase inflation by increasing domestic demand for goods and services. The impacts of globalization forces are different for different economies at different times. So the impact of globalization is not clear. It is ambiguous and the most debated topic in the literature. This research work will fill the gap to assess that what is the impact of globalization on employment in developing countries? Therefore, this study aimed to examine the impact of globalization on employment in Pakistan.

2. Material and Methods

Literature reported different impacts of globalization on developing economies depending on the different nature of the developing countries. But this study is interested to investigate the impact of globalization on employment elasticity of the developing country i.e. Pakistan. We know from literature that employment/unemployment is determined by the forces of labour demand and labour supply, which can be written as:

$$Unemployment = \int (LabourDemand, LabourSupply) \tag{1}$$

$$LabourDemand = \int (WageRate, DomesticInvestment, Globalization) \tag{2}$$

$$LabourSupply = \int (WageRate, PopulationIncrease, Globalization) \tag{3}$$

Annual time series data about wage rate is not available for the economy of Pakistan. Therefore, this factor is ignored. While other important variable increase in population, domestic investment and globalization are taken into account for the present study. The final equation will be of the form as:

$$EMP = \int (Pop, DI, GLOB) \tag{4}$$

Similarly unemployment is also is determine by the forces mention in equation (4)

$$UNE = \int (Pop, DI, GLOB)$$

$$\ln UNE = \beta_0 + \beta_1 GLOB + \beta_3 Pop + \beta_4 DI + \mu t \dots\dots\dots \tag{5}$$

- Where
- Ln= Natural log
- UNE=Unemployed labour force
- Pop=Increase in total Population
- DI= Domestic Investment
- Glob= Globalization Forces (Trade, FDI and Remittances)

Data for the present study is taken in millions of dollar. Therefore, natural log is employed to reduce the intensity of the data and to get elasticity estimates for the variables under consideration. To get the estimates of the equation (4) annual time series data are collected from World Bank (World Development Indicator) for the period of 1980-2017. As the nature of the data is time series, therefore, stationerity tests are necessary to investigated. For this purpose ADF and PP tests are employed to examine the stationerity of the data. The results of ADF and PP stationerity tests are shown in table-2 which confirms that the variables are of the different order of stationerity. Therefore literature suggests Auto-regressive distributive lag (ARDL) technique for estimation of the required estimates.

3. Results and Discussions

3.1 Stationarity Test Results

The results of the ADF and PP tests are given in the following table 3.

Table 3: Results of ADF and PP Tests

Variables	ADF test Statistics		PP-test Statistics		Order of Integration	
	Level	Ist Difference	Level	Ist Difference	(at 5% level of	(at 10% level of
					significance)	significance)
lnUNE	-1.189 (0.607)	-5.11* (0.004)	-1.312 (0.609)	-5.402* (0.000)	I(I)	I(I)
lnTRD	-1.986 (0.303)	-5.105* (0.000)	-2.158 (0.215)	-6.014* (0.000)	I(I)	I(I)
lnFDI	-2.017 (0.502)	-6.085* (0.000)	-2.103 (0.448)	-6.008* (0.000)	I(I)	I(I)
lnDI	-4.032* (0.003)	-8.450* (0.012)	-4.206 (0.041)	-5.00* (0.003)	I(0)	I(0)
lnPOP	-1.638** (0.283)	-4.615* (0.002)	-1.79** (0.308)	-4.411* (0.005)	I(1)	I(1)

*, ** represent 1% 5% level of significance

The results in table 3 showed that all the variables are stationary at first different except Domestic Investment. ARDL co-integration technique is suitable for estimation of the said impact. The testing for the existence of long run relationship is tested and the results of the bond test is given in table-4.

3.2 Results of the Bond Test

The first step in ARDL procedure is the testing of long run relationship

Table 4: Test for Long Run Relationship

Model	F-Calculated (P-value)	F-Statistics Critical values at 5% level^ I(O) ---- I(1)	Result
Fy {lnUNE /(lnTRD,lnFDI, lnR, lnDI, lnPOP)}	11.54 (0.000)*	(4.29)----(5.37)	Co-integration

* Represent significant at 5% level

Unemployment is tested against globalization and other controlled variables. The results of the Bound test are given in table 4. The value of the Wald statistic is turned out is 11.54, given with critical values. As the outcome of the test greater then upper bound critical value, this confirmed the existence of the co-integration relationship. After the confirmation of co-integration the next step is the estimation of the parameters in both the short and long run.

Long-Run Elasticity Estimates:

$$LnUNE_t = 22 + 0.32 TRD_t - 0.02 FDI_t - 0.19 R - 0.29 DI_t + 0.72 POP_t$$

T.Vs → (0.55) (3.81)* (-1.45) (-2.4)** (-2.17)** (1.74)

Short-Run Elasticity Estimates:

$$\Delta UNE_t = 55 + 0.601 \Delta UNE_{t-1} + 0.201 \Delta TRD - 0.12 \Delta FDI - 0.03 \Delta R - 0.65 \Delta DI + 0.09 \Delta POP$$

T.Vs → 0.48) (-2.81)** (2.92)* (0.29) (0.85) (5.28)* (0.11)

-0.33 ECM_{2t-1}

(-6.03)*

*, ** and *** represents the significance at 1%, 5% and 10% respectively

The long run and short run results show that the measures of globalization affect significantly unemployment except FDI in the long run. The effect of trade is positive on unemployment. Trade provides the opportunity of market enlargement and access to foreign technology and expertise, but also a threat to the labour market in the developing countries. the labour force in developing countries are not of good skill and experienced of sophisticated technological equipment’s which reduce in demand for low skill labour and they get out from completion. The impact of FDI and R variables are negative but FDI is found statistically insignificant at 5% level. The result of this study is consistent with Afzal (2007) and Roy (2012) and Ali et al., (2013 & 2015) contradicts with the findings of Shahbaz et al. (2008).

The value of ECM is negative and significant its value is -0.33 shows that any disequilibrium in the model will be adjust in about three years.

All the used diagnostic tests indicate the absence of any problem is shown in Table 5. These tests are

- Jarque-Bera statistic for normality of residuals,
- Breusch-Godfrey test for serial-correlation,
- ARCH residuals for Hetro-scedasticity and
- Ramsey RESET test for specification error.

Sketch of Cumulative sum of recursive residual (CUSUM) and Cumulative sum of square of recursive residual (CUSUMSQ) statistic indicate no evidence of mis-specification and structural instability for the period estimated.

Table 5: Diagnostic Tests

Tests	F-Statistic		Probability
1. Serial Correlation	1.150		0.301
2. Hetro-scedasticity	0.069		0.794
3. Normality*	1.760		0.420
4. Functional Form	1.615		0.224

*.Chi square test for Normality

Figure 1 (a)

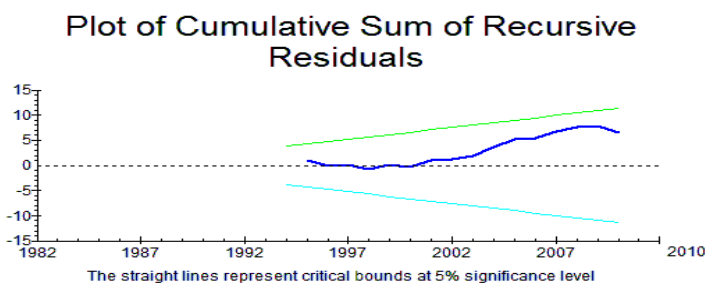
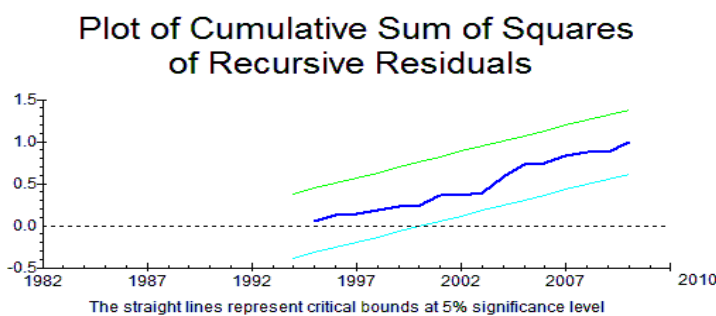


Figure 1 (b)



4. Conclusion and Policy Recommendations

The prime objective study is to examine the impact of globalization on unemployment in Pakistan. The nature of the study is time series. Therefore, testing of stationarity is necessary for this purpose ADF and PP tests are used. The outcomes of unit root tests suggested ARDL technique for estimation. Globalization is measured by Trade, FDI and remittances flow. Some other variables like gross domestic investment and population increase are also incorporated to the model based their theoretical and empirical importance. The empirical results show that the measures of globalization affect unemployment in both the short and long run. Trade transactions lead to increase unemployment while the impact of remittances is negative. It means that with the increase in remittances there is fall in unemployment. The impact of FDI variable is insignificant. The variable DI inversely related to unemployment and found statistically significant. The variable increase in population is found insignificant. Globalization in the form of trade integration provides opportunities for a greater access to large market; maximum utilization of the domestic resources enhances output and employment in developing countries. But, regarding developing countries it is not clear because in developing countries most of the labours are of low and semi skill and they cannot compete at international market with high skill labour. For developing countries like Pakistan it should keep in mind that liberalization in trade restriction may hurt labour market. Pakistan's exports are increasing by decreasing or even not increasing. While their imports increasing by increasing. Such gap put pressure on current account balance. FDI and Remittances should be encouraged to reduce unemployment in Pakistan which is helpful in engagement of previously unemployed labour force in productive environment. Domestic investment should also be encouraged to provide new employment opportunities which may help in reduction of unemployment. Globalization can be used as tool to control and reduce unemployment and to augment growth which may further help in the reduction of poverty to make sure stable economic environment in Pakistan.

5. Suggestion for Future Research

The present research study is about one of the most important and debated topic globalization and its impact on developing countries. The measure of globalization is taken peculiarly in literature. Globalization is the reduction or removal of restriction on cross border flow of products and resources. But there is no proper data on barriers removal for developing countries and trade openness, remittances and FDI are mostly used in literature. It is suggested that further research should be done regarding globalization by its real presentation removal of restriction on cross border flow of products and resources.

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