

Azərbaycanın İqtisadi və Sosial Araşdırmalar Jurnalı www.azjess.com
Volume 3, Number 3/İl 3, Say 3, 2016

#### TRADE OPENNESS AND WAGES IN PAKISTAN

Zeeshan Shafique<sup>1</sup> Dr. Muhammad Ilyas<sup>2</sup> Nadia Nasir<sup>3</sup>

#### Abstract

This study investigations the effect of exchange openness on wages .We have analysed the instance of Pakistan where exchange openness has positive effect on ostensible wages. We have utilized ARDL methodology of cointegeration to direct this observational investigation. Other than exchange openness, there are some different variables which impact compensation which likewise influence compensation however are excluded in the study. We have led the exact investigation utilizing information from Pakistan financial overview 2013 and ILO-worldwide compensation database 2012 and World Bank databases.

**Keywords:** Pakistan, Trade openness, Wages, ARDL, Cointegeration.

#### Introduction

Various creating nations have embraced the methodology of exchange liberalization otherwise called exchange openness through the span of recent decades. The supporters of exchange openness say that, exchange liberalization is gainful for an economy particularly for an ordinary specialist. As the exchange opens, it builds the occupation and wages of a commonplace labourer, known as Hecksher-Ohlin model, and the hypothesis of Stolper and Samuelson additionally called HO/SS hypothesis.

Exchange liberalization implies diminishment in boundaries which are forced on the free stream of products and administrations among nations on the worldwide scale. Bhagwati and Krueger have demonstrated that, "any approach which diminishes the counter fare predisposition, will lead towards liberalization of exchange." Edward et al. (1993) depicted exchange liberalization as, "a liberal exchange administration is one in which all exchange twists, including import levies and fare sponsorships are totally killed."

<sup>&</sup>lt;sup>1</sup> Student of M.Phil. Economics Superior University, Lahore

<sup>&</sup>lt;sup>2</sup> PhD Scholar, Superior University, Lahore

<sup>&</sup>lt;sup>3</sup> Assistant Professor, Superior University, Lahore

The greater parts of the creating nations are work bottomless, which give them a premise of similar favourable position. At the point when exchange opens, work is reallocated from import focused segment which is currently a declining division and utilized into a growing area, which utilizes the work concentrated system of generation. Because of extension of part and work concentrated method of creation, work request increments and it prompts an expansion in the normal business level in the nation and in the long run compensation additionally increment. (Hassan 2001.p 5).

The experience of Created nations or the industrialized countries is reliable with the discoveries of HO/SS hypothesis. The examination of early changed creating economies of Asia, otherwise called "The Recently Industrialized Economies of East Asia, for example, Hong Kong, Singapore, South Korea and Taiwan, where exchange openness has prompted an expansion in the work request in the growing area, which has additionally expanded wages. However, the investigates of Robbins et al. (1996), and Woods et al. (1997), have demonstrated that exchange liberalization may not get critical change the life of an average labourer.

In any case, Woods et al. (1997) has demonstrated that, in late instance of creating economies, exchange openness advances uniqueness of earnings. As the exchange opens, it causes an inflow of new and development innovation from the remote nations that require to be worked by exceptionally taught and gifted labourers. Along these lines, the interest for exceptionally talented and instructed specialists (which speak to a little extent of work power in such nations) rise which further expand their normal returns, while the interest of low gifted less taught labourers falls thus their salaries additionally fall. Along these lines, it prompts more prominent compensation imbalances in a less created nation. The investigations of Such and Shatz et al. (1994); Leamer et al. (1996); Baldwin and Cain et al. (2000), have additionally demonstrated that globalization of economies through exchange oppenss has expanded disparities in business and wages and prompt more prominent bends in economies.

So there are studies that backing that exchange openness can influence a nation's general compensation level emphatically, however now and again it cause fall in normal pay level.

**Research question:** Does exchange openness decidedly influence the wages in Pakistan?

**Limitations of the study:** Because of time, geological and other asset limitations, auxiliary information gathered for a long time, from a few validated sources, is utilized to test the effect of exchange openness on wages in Pakistan. Information utilized as a part of this study takes general circumstance winning in the nation, including both rustic and urban ranges. It doesn't demonstrate the effect on wages by division, sex or topographical contrasts.

**Objective of study:** In this paper, an endeavour to condense the effect of exchange openness on wages in Pakistan has been made, by breaking down time arrangement information gathered for a considerable length of time 1981-1982 to 2011-2012 on exchange and wages, which tells how viably the strategy of exchange openness has served if there should arise an occurrence of Pakistan.

**Literature review:** Trade openness is an important component of trade policies of most of the countries of the world. It is an engine of economic growth if adapted

cautiously. Trade openness affects wage structure and wage distribution of a country. Trade openness also increases the competition faced by domestic industries which may harm their growth and expansion. We can see how trade openness works for different countries and how trade openness took place in Pakistan.

**Theoretical Framework**: The commonly used analytical framework of Heckscher-Ohlin model of international trade provides the understanding of the impact of trade liberalization on the labour market. The standard H-O model is based on assumption of two country, one exporting and the other importing, two factors Labour and capital, and two goods, version of the model tells that production moves from autarky to a point where specialization in the production of the commodity take place which is intensive in abundant factor(i.e. labour) of the economy.

If we assume that each country produces both the goods (pre – liberalization condition), the relative price of the commodity, of the two, more intensive in labour, in labour intensive country will increase. While on the other hand, the relative price of the commodity intensive in capital, in the capital intensive country, will increase. So the other firms in both the countries will be attracted towards the profit seeking sectors of the economy and they will switch their production to their corresponding abundant-factor intensive production technique. So demand for labour increase in the labour abundant country and demand for capital increases in the capital-intensive country.

As the model assumes that "there will be a full-employment level in the country", an increase in the labour demand will cause an increase in the wages of the labourers in the labour-intensive country. Rodrick (1999) found out that trade liberalization may also affect labour by making the demand for labour more elastic. He further added that "if we relax the assumption of full-employment, this increase in the labour demand can be translated into increase in the employment and wages in the exact magnitudes depending upon the conditions in the labour market." (Rodrick 1999).

It is often proposed that H-O model should be based on rather restrictive assumptions. The basic conclusion of the model that trade openness may cause an increase in the returns of the factors in which the country is abundant in is 'quite compelling' for developing countries. "But the actual effects of trade on labour market are likely to be influenced by real world features, which the model in its standard form abstract away from .e.g. trade liberalization may have implications for technical efficiency and the set of technologies available for producers in developing countries. Thus technology could be skill-biased and benefit primarily skilled as argued by Robbins (1996) Woods (1997)." (Hasan 2001, p. 5)

H-O model assumes that supply of labour is inelastic, but in many developing countries the condition of labour supply are not inelastic but rather they have unlimited supply of labour .e.g. China and India, at prevailing wages. So and increase in the labour demand will not increase the wages rather it will cause an increase in the employment level in the country. To reap gains from trade liberalization, it requires that factors should be reallocated from the declining import competing sector to the expanding exports sector. It is true only if the factors are mobilized. If the factors are not mobilized the results will be opposite. In most of the cases capital is assumed to be immobile in shortrun but labour in most of the cases; is free to move to any part of the country as suggested by the H-O model.

The process of finding new job is not that easy and quick as stated by the model. There are delays in job creation, matching of qualification to job requirements. There are also problems of difficulty in geographic mobility and skill attainment required for the open job. The formal sector in most of the developing countries operated under government regulations such as minimum wage level, job security and the system of social security which also cause imperfections in labour markets. So such imperfections lead to delay the adjustment process.

In India, a tax on lying off workers is imposed on firms to reduce unemployment in large manufacturing sector. But it also reduces the process of hiring workers. Minimum wage laws and social security benefits are also responsible for unemployment in many developing countries (Edwards 1994).

Rama (1994) has shown that unionization opposes the trade liberalization and favours protection of the domestic industry as protection increases the economic rent and greater returns for workers are ensured but less protection to domestic industry cause reduction in economic returns and reduced benefits.

Historical review of trade openness in Pakistan: Pakistan came into being with a huge pile of problems. Deficiency of industrial base was one of the major problems. Agriculture was the dominated sector. Pakistan lacked well organized infrastructure and organizational framework. The political instability was also at its peak during first decade after Pakistan's creation. This regime is also called as the "restricted trade regime". The government tried to protect the newly establishing industry from foreign competition by putting tariff and non-tariff barriers to external trade to reduce the market competition.

The period of sixties is called as the golden era of Pakistan industrial development. In this period the foundation of industrialization was laid down which led to large scale expansion of manufacturing sector. The policy of import restriction continued and Pakistan continued protecting her industries from foreign competition. But there was also an introduction of export policy to encourage the country's exports to the other countries. "An over-valued exchange rate, exports bonuses, preferential credit access to industries with export potential and automatic renewal of imports licenses" continued in this regime .So it caused increase in export volume and expansion in industrial production during 1960's. Exports were dominated by agricultural goods which were majorly the outcome of Green Revolution in Pakistan (1966-69).

The fast industrialization during 1960's made economists believe that Pakistan will dominate the world economy very soon. But the policy of industrialization did not continue at the same rate, in the next decade. Due to nationalization policies of Bhutto (1972-77) damaged the industrial production and output declines many times due to lack of personal incentives. But during this decade, government adopted three trade liberalization measures to promote exports during this decade which includes currency devaluation, in which rupee depreciated against dollar by 57% in 1972, elimination of export bonus scheme and government also discontinued the scheme of restrictive licensing. All these steps cause an increase in the export volume especially increase in export of manufactured products. After that trade policy of Pakistan continued to change in different years but the most significant change in the trade policy took place in year 1987. In this policy the tariffs slabs on the imports were reduced from 17 percent to 10 percent. This policy was the major outcome of the Structural Adjustment program

implemented in Pakistan by IMF. The other major change in the import policy was that commodity specified sales tax was replaced by a uniform tax.

During this regime of Miyan Nawaz Sharif privatization of major industries was started on huge scale including privatization of major banks, manufacturing industries etc. which lead to increase in the role of private sector in the economy. Due to this competitiveness among the domestic industries increased efficiency of these industries and the expansion of exporting sector. During this regime, government provided several incentives to liberalize trade such as tax holidays to domestic manufacturers to increase exports, tariff-cuts on imports etc. Maximum tariff reliefs were given in this regime which includes reduction of tariffs from 225 percent in 1986-87 to 70 percent in 1994-95. The custom duty slabs were reduced from 13 percent to 5 percent. Furthermore, fixed exchange rate system was replaced by flexible exchange rate system which is continued till now. President Musharraf's regime is considered as the most liberalized trade regime ever. During "2000-03 promotion of liberalization was accompanied by deregulation and reduction in cost of doing business." (Yasmin, Jehan, Chaudhar 2006, p.6).

These policies were designed to attain macroeconomic stability by stabilizing inflation and exchange rate. Another important contribution of this regime was the initiation of export of services to the other countries which was ignored previously. In 2004-05 government attained a level of almost US \$ 21.1 billion of imports. (Yasmin, Jehan, Chaudhar 2006, p.6, 7).

Pakistan also signed a free trade agreement with China which reduced the restriction on imports from China to minimum extent. Pakistan also became WTO member and signed lower bound tariff with it. But these policies lead to history's biggest balance of payment crisis by 2008 when countries imports crossed a record amount of US \$ 40 billion and exports were financing less than 50 percent of the imports bill. It also had left significant negative impact on our manufacturing sector where many tyres, ceramic industry shutdown and the share of manufacturing sector in GDP and employment fell down. In upcoming years the same trade liberalization policy initiated by Musharraf was continued which was based on import led strategy of trade. (Pakistan Economic Survey, 2013, chap 12, p. 11).

So we can say that trade openness can help to increase wages of workers in the country that removes berries for the free flow of trade, as some researches on East Asian countries have shown but it may increase wage inequalities as some Latin American countries have experienced. Pakistan should learn from the experience of other developing countries to make trade openness more effective and efficient for our economy. There is a need to adopt trade openness policy with caution and according to country's employment and labour force structure. Additional support from other sectors is also required to distribute fruits of trade liberalization equally.

# Research Methodology Sources of Data

Information which we have utilized as a part of this study incorporates on fares, imports, GDP, GDP per capita and compensation has been taken from Pakistan Economic Survey 2012- 2013, World Bank database and ILO-worldwide compensation database 2012.

# Variable Specification

In this paper we have attempted to break down the procedure of exchange openness occurring in Pakistan through the span of 30 years from 1981-1982 to 2011-2012 and its impacts on wages in Pakistan amid this period. In any case, first we will talk about the technique which has been utilized to compute exchange openness and wages, in this paper.

# **Trade openness or Trade-to-GDP ratio:**

Also known as exchange proportion, demonstrating level of exchange openness. It is figured by summing up the ostensible estimation of fares and imports in USD, of every year and partitioning it with the ostensible GDP at business sector costs given in dollars.

# Wages:

The second variable that is utilized as a part of this study is ostensible wages. To investigate ostensible wages, normal ostensible month to month wages of representatives working in various areas of Pakistan economy, are taken, in US dollar, to see the general effect of exchange progression on labourer's wages.

Alternate variables used to bolster the condition are GDP taken in USD and Gross domestic product per capita measured as yearly GDP in USD, isolated by yearly populace.

# **Basic Model**

In this study we are attempting to discover the effect of exchange progression on wages. Model utilized as a part of this study comprise of one condition contains one regressand and three repressors. The condition is as per the following:

Equation 1: 
$$W = \beta_1 + \beta_2 TR + \beta_3 GDPPK + \beta_4 GDP + \varepsilon$$

In this condition TR is utilized as measure of exchange openness additionally called exchange proportion. W is utilized for wages, which shows normal month to month wages of the utilized individuals in Pakistan taken in USD .GDPPK is GDP per capita, measured as aggregate GDP isolated by the aggregate populace, is utilized as determinant of the wages since it serves to allotted assets on the premise of per individual criteria giving a more profound understanding of asset distribution and GDP is the yearly GDP taken in USD. While  $\epsilon$  is the blunder term of the condition including every single other element that influences compensation in Pakistan. The examination is completed on time arrangement information from period 1981-1982 to 2011-2012 on aggregate very nearly 30 perceptions.

# Methodology: ARDL

In this study an endeavour to see the long run relationship between the variables has been made. At the point when the we utilize the time arrangement information for investigation there is a chance that the distinctive arrangement utilized as a part of examination might be stationary or non-stationary. With the assistance of graphical examination and correlogram, and unit root test. For time arrangement information examination, cointegeration procedures are utilized to see connection among variables. There are various cointegeration system, for example, Engle-Granger method (1987), Johansen methodology and ARDL methodology of cointegeration. In this study, we

utilized the methodology proposed by Pearson in 1996 and enhanced in 2001, known as Autoregressive Distributed Lag (ARDL) for cointegeration examination, that does not require arrangement of variables into I (0) or I (1) as the two different systems e.g. Engle-Granger and Johansen approach, specified above, require. There is no compelling reason to lead unit root test as a pre-imperative of investigation.

# **Error Correction of the model**

$$\Delta W = \alpha + \beta i \sum_{i=1}^{n} \Delta(Wage)t - i + \gamma i \sum_{i=1}^{n} \Delta(TR)t - i + \phi i \sum_{i=1}^{n} \Delta(GDPPK)t - i$$

$$+\psi i \sum_{i=1}^{n} \Delta(GDP)t - i + \lambda 1(Wage)t - i + \lambda 2(TR)t - i + \lambda 3(GDPPK)t - i + \lambda 4(GDP)t - i + \varepsilon t$$

Where  $\Delta$  is difference operator and  $\epsilon_t$  is the white noise disturbance term

W= wages TR= Trade ratio/trade openness

GDP= Gross domestic product GDPPK= GDP per capita
Condition (2) shows that financial development has a tendency to be impacted

Condition (2) shows that financial development has a tendency to be impacted and clarified by its past qualities. The basic slacks are set up by utilizing least Akaike's data criteria (AIC).

The ARDL approach comprises of two stages. In the first place the long run relationship between the variables in the framework is testicles. Invalid speculation of no cointegeration or no long run relationship characterized by

H0: 
$$\lambda 1 = \lambda 2 = \lambda 3 = \lambda 4 = 0$$

It is tried against the option theory that long-run relationship exists.

H1: 
$$\lambda 1 \neq 0$$
,  $\lambda 2 \neq 0$ ,  $\lambda 3 \neq 0$ ,  $\lambda 4 \neq 0$ 

It should be possible by processing the F-Statistics. Pearson (1996) has given two arrangements of values, one is upper bound and the other is lower bound. On the off chance that our estimation of F-measurement lies beneath the two limits it implies that invalid theory not dismisses, it lies over the two limits it implies that invalid speculation is rejected and cointegeration exists and there is a long run relationship between the variables. Step two of ARDL methodology is suitable slack choice utilizing the Akaike Information criteria (AIC) or Schwaz Baysesian Criteria (SBC). Appropriate slack choice empowers to recognize genuine flow of the model. In our investigation we have utilized programming Micro fit 5.0 which consequently chooses the fitting slack length.

# **Diagnostic**

#### Tests:

To check the execution of the assessed model we have directed analytic strides that analyse the serial relationship, useful structure test, ordinariness test and heteroscedasticity.

# **Stability**

#### **Tests:**

At that point moreover security tests in particular CUMSUM (Cumulative Sum) and CUSUMSQ (CUSUM of Squares) of recursive residuals are likewise led. These tests were initially proposed by Brown in 1975.

#### **Results & Discussion**

In this part we will show the key aftereffects of estimation and will talk about their translation or implications.

# **Augmented Dickey Fuller Test**

At first we will attempt to find that the time arrangement we are utilizing are stationary or non-stationary. For that we have led Augmented Dickey Fuller trial of unit root.

Table 1: Unit Root Estimation

	Level		1 <sup>st</sup> difference	
Variable	Constant	Constant & Trend	Constant	Constant & Trend
Wages	-2.622(1)	-3.221(1)	-2.622*(0)	-3.221*(0)
Trade Ratio	-2.621*(0)	-3.218*(0)	-2.622*(0)	-3.221*(0)
GDP	-2.625(2)	-3.225(2)	-2.625*(1)	-3.225*(1)
GDP per capita	-2.622(1)	-3.225(2)	-2.622*(0)	-3.221*(0)

**Note:** The null hypothesis is that the series is non-stationary, or contains a unit root. The rejection of the null hypothesis is based on MacKinnon (1996) critical values. The lag length are selected based on SIC criteria, this ranges from lag zero to lag two. \*indicate the rejection of the null hypothesis of non-stationary at 10% significant level.

# **Regression Results**

In this study we have utilized Micro fit 5.0 because of its easy to understand interface and basic technique for use for exact examination. The estimation consequences of condition 1 are demonstrated as follows.

**Regressand:** Wage Regressors: Trade Ratio TR, GDP, and GDP per capita Table 2: Regression Results Equation 1

Model criteria/Goodness of fit

Regressor	Coefficient	Standard Error	T-Ratio	Probability
WAGE(-1)	0 .51345	0.14585	3.5204	0.003
GDPPK R-Squared: 0 .95221	-0.15612 R-Bar-S	0.033705 equared: 0.9283	-4.6320 1	0.000

GDPPK(-1)	0.12048	0.036544	3.2968	0.005
TR	7.3272	3.6370	2.0146	0.064
TR(-1)	13.9880	4.5599	3.0676	0.008
GDP	0 .6896E-3	0.1717E-3	4.0162	0.001
GDP(-1)	-0.5123E-3	.1582E-3	-3.2386	0.006
C	-27.9608	10.0975	-2.7691	0.015

**Interpretation of results:** The above table lets us know that in the event that we increment the TR by 1 unit the estimation of wages will be expanded by \$ 7.3272 keeping every single other element steady. Correspondingly if estimation of GDPPK increments by \$ 1 the estimation of wages will fall by \$ 0.15612 keeping alternate things steady. Also, if the quality GDP increments by one dollar, the estimation of wages will increment by \$ 0.68900. The t-estimations of the considerable number of coefficients are critical (above supreme 2) at 5 percent level of criticalness. The likelihood tells what are the odds of dismissing the t-qualities being registered.

# **Bound Test:**

The utilization of the limits system depends on three approvals. Initially, Pesaran et al. (2001) supported the utilization of the ARDL model for the estimation of level connections in light of the fact that the model proposes that once the request of the ARDL has been perceived, the relationship can be evaluated by OLS. Second, the limits test permits a blend of I(1) and I(0) variables as regressors, that is, the request of incorporation of suitable variables may not as a matter of course be the same. Thusly, the ARDL procedure has the upside of not requiring a particular ID of the request of the hidden information. Third, this method is reasonable for little or limited specimen size (Pesaran et al., 2001).

	Table 3: Results of F-Test			
F-	95% Lower	95% Upper	90% Lower	
statistic	bound	bound	bound	90% Upper bound
8.5245	3.9424	5.3660	3.1745	4.3530

**Note:** Computed F-statistic: 8.5245 (Significant at 0.05 marginal values). Critical Values are cited from Pesaran et al. (2001).

# **Interpretation of the results**

In ARDL the F-measurement lets us know whether the model is general huge or not and does there exists a long run relationship between variables (cointegeration) or not. On the off chance that the estimation of F-measurement is over the upper and also bring down bound the invalid theory of no cointegeration is rejected. On the off chance that it is in the middle of the upper bound and lower bound then the outcomes are uncertain and if the estimation of F-insights is less then both lower and upper limits, the invalid theory is not dismisses which implies no long-run relationship exists between the variables.

As the estimation of F-measurement is 8.52 which is over the upper bound that is 5.366 and additionally bring down bound that is 3.94.So the invalid theory of no cointegeration is rejected.

# **Error Correction for the model**

Mistake redress of the model discovers that what happens in the short run if the harmony estimations of the model veer off from their mean or long run values. It additionally tells the amount of time it will take to re-establish the long run circumstance again or to achieve harmony state.

Table 4: Regression Results of Equation 2

Regressor	Coefficient	Standard Error	T-Ratio	Probability
dTR	7.3272	3.6370	2.0146	0.060
dGDPPK	-0.15612	.033705	-4.6320	0.000
dGDP	0.6896E-3	0.1717E-3	4.0162	0.001
ecm(-1)	-0.48655	-1.14585	-3.3359	0.004
` ,				

# **Interpretation of the results**

While using ARDL, error correction for the equation used in the model is used. As cointegeration analysis helps to find out the long run relationships between the variables, their equilibrium values in the long run. There is also a need to find what happens in short run. Most of the times the variables deviate from their long run equilibrium values in short run and go to a disequilibrium condition. So we use error correction technique to find out how much time does the model require to return to its equilibrium state if it deviates from it in the short run. The error correction factor or also known as speed of adjustment factor or disequilibrium factor tells how much time does the model require to reinstate its equilibrium, if it deviates from it in short run. It can be positive or negative depending upon the sign of the error (as error correction has opposite sign from the error term). The above results can be matched with the error correction equation given earlier in the paper. The value of the error correction factor is -0.48655.it means the error is positive and in short run the model may deviate from the equilibrium position. The null hypothesis of no long run relationship is

 $H_0$ :  $\lambda_1 = \lambda_2 = \lambda_3 = \lambda_4 = 0$  It is tested against the alternative hypothesis that long-run relationship exists.  $H_1$ :  $\lambda_1 \neq 0$ ,  $\lambda_2 \neq 0$ ,  $\lambda_3 \neq 0$ ,  $\lambda_4 \neq 0$ . The values of all the coefficients are non-zero, as shown

by the table above, which rejects the null hypothesis of no cointegeration. So we conclude that there exists a long run relationship among the variables.

# **Diagnostic Tests**

The purpose of conducting these tests is to make sure that the model used for the study is free of any kind of abnormality that may lead to insignificance of the results.

Table 5: Diagnostic Tests Results

LM-Version			
	Probability	F-version	Probability
Chi Square			
2.5125	0.113	1.6761	0.218
0.30637	0.580	0.18359	0.675
1.2539	0.534	Not applicable	
0.68758	0.407	0.64524	0.431
	2.5125 0.30637 1.2539	Chi Square     Probability       2.5125     0.113       0.30637     0.580       1.2539     0.534	Chi Square         Probability         F-version           2.5125         0.113         1.6761           0.30637         0.580         0.18359           1.2539         0.534         Not applicable

Interpretation of results: Conducting the diagnostic tests is essential to see the appropriateness of the model. For the test results to be acceptable, the probabilities for the tests given should be greater than 0.1 or 10 percent significance level. If probabilities are greater than 0.1 it means that there is no problem with the test and the results are acceptable. The first test is the Serial Correlation test. The Serial correlation test tells us whether there exists a serial correlation or not. H0: serial correlation present, alternative hypothesis is H1: no serial correlation exists. As there is only one equation in the model and from the table above we can see test statistics are acceptable. So we conclude that null hypothesis is rejected and there is no serial correlation. Similarly for Functional form test, the values given in table tell us that the null hypothesis of incorrect functional form is rejected. Normality test results are also acceptable, and error is normally distributed. The Heteroscedasticity tests evaluates whether the error term has constant variance or not. If it has variable variance, it violates the assumption of the Classical linear regression model (CLRM). For the test, There is a null hypothesis of variance of error term is not constant while the alternative hypothesis says that the variance is constant. The probability of test given in table above is greater than 0.1 which means, null hypothesis is rejected. The variance of the error term is constant. The probabilities of all the tests are greater than 0.1 so there is no problem with any of the test. It shows the equation is correctly specified and there is no serial correlation, functional form is correct, normality exits and there is no problem of heteroscedasticity.

# **Stability Tests**

The purpose of conducting these tests is to make sure that the model used for the study is free of any kind of abnormality that may lead to instability of the model in long run and short run.

# Results of Cumulative Sum of Recursive Residuals (CUMSM) and Cumulative Sum of Square of Recursive Residuals (CUMSUMSQ) Test Figure 1

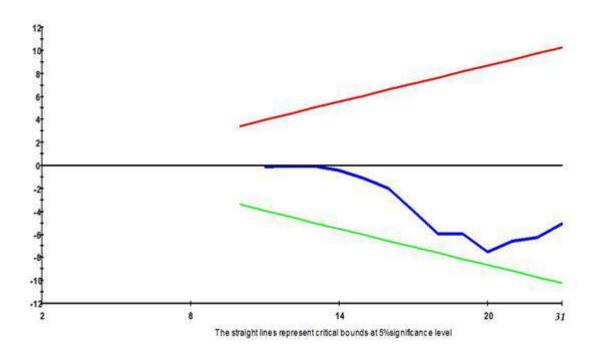
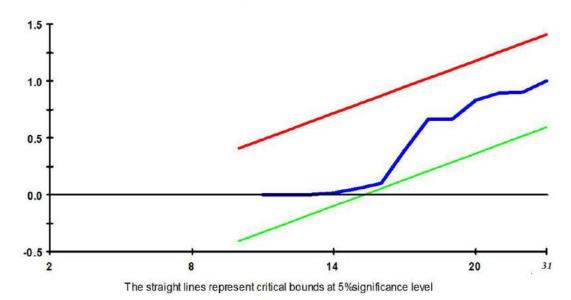


Figure 2

# Plot of Cumulative Sum of Squares of Recursive Residuals



**Interpretation of results:** The test CUMSUM of Recursive Residuals test (Figure.1) and CUMSUM square of Recursive residuals (Figure.2) are conducted to check the long run and short run stability of the relationship, respectively. For model to be stable both in long run and short run, Micro fit 5.0 uses an upper band and lower band and the respective estimates shown in the form of line should lie in between the two bands, at 5% significance level. As the two figures Figure.1 and Figure.2 show that values of both test lie in between the upper and lower bound. It shows that the second equation /relationship are stable for both short run and long run.

# Recommendations & conclusion Findings of the study

In this study, with the assistance of exact investigation done before, we can say that exchange openness positively affects compensation in Pakistan. So the confirmation reported by Wood 1994, 1996 a Krueger, 1983, 1990 that exchange openness expands the relative returns of the moderately copious element.

# **Recommendations & Policy implications**

As we as a whole realize that Pakistan is a work bottomless nation. So it ought to embrace such strategies for generation that are work serious and there ought to be given uncommon need to fabricate and trade work concentrated merchandise to the nations. It will enhance our work and wage level in the nation and also better our exchange shortage. There is a more prominent need of giving more instructive and preparing offices to the untalented specialists so that as exchange progression expands the interest of more gifted work, it can be met by upgrading the abilities of our work power. It will likewise build the wages and profitability of the nation. Exchange openness has put negative effects on formal division development while casual area has extended extraordinarily. So government ought to take extraordinary measures to coordinate the exchange development guide extension of formal segment more.

Exchange openness builds the opposition for the local enterprises. Government ought to receive such approaches that will expel flaws in the business sector and enhance their intensity.

Administrations division is presently turning into the main impetus of universal exchange .So we ought to give unique regard for the improvement and development of this segment. Pakistan ought to take after fare one-sided exchange approach not import one-sided arrangement. It will shield our household industry from superfluous rivalry. There is a desperate need of better political and financial solidness. Great administration, persevering, legitimate and qualified authority is required to improve monetary and exchange arrangements. Government ought to incline toward the enthusiasm of everywhere throughout the passing of a couple.

Pakistan ought to enhance every one of those variables which are required for useful exchange advancement, for example, duties and non-levy boundaries, great universal relations and so forth prompting development and improvement.

**Conclusion**: At long last we infer that exchange openness is an imperative determinant of wages in Pakistan yet there are some different variables which affect our pay design. Our administration has embraced such approaches which have expanded our import more than fares, so there is have to energize our fare and receive such strategies which increment aptitudes, work portability and reinforce those elements which inside

increment business level and wage solidness, with the goal that we ought to no more rely on exchange openness to make openings for work and better compensations.

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