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Highlights

- Engineer Economic Growth
- Tax Productivity in Post Reform
- Putty Capital and Clay Labor
- Effects of Sectoral Transformation

Discovering Thoughts, Inventing Future

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Does Trade Openness Engineer Economic Growth in Nigeria? (Empirical Evidence Covering 1991 to 2013)

By Mr. Ebere Ume Kalu, Chuke E Nwude & Nwonye Nnenna

University of Nigeria, Nigeria

Abstract- This study examined whether trade openness engineers economic growth in Nigeria. The motivation stems from evaluating whether there is a significant contribution from trade openness proxied by net export (NEXP) to economic growth in Nigeria (GDP). The study employed the Classical Linear Regression Model (CLRM) using secondary data from 1991 to 2013. The ordinary Least Square Regression method represents the principal method of estimation combined with an array of other general/standard and diagnostic tests. The R2 explains that 97.7% of variation in GDP in the model is explained by the principal regressors. Export was found to be a positive and significant function of GDP but Import was positive and non-significant. This is consistent with theory as economies grow from exporting more than they import all things being equal.

Keywords: economic growth; trade openness, model stability test, net export, gross domestic product.

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Does Trade Openness Engineer Economic Growth in Nigeria? (Empirical Evidence Covering 1991 to 2013)

Mr. Ebere Ume Kalu [α], Chuke E Nwude [σ] & Nwonye Nnenna [ρ]

Abstract- This study examined whether trade openness engineers economic growth in Nigeria. The motivation stems from evaluating whether there is a significant contribution from trade openness proxied by net export (NEXP) to economic growth in Nigeria (GDP). The study employed the Classical Linear Regression Model (CLRM) using secondary data from 1991 to 2013. The ordinary Least Square Regression method represents the principal method of estimation combined with an array of other general/standard and diagnostic tests. The R2 explains that 97.7% of variation in GDP in the model is explained by the principal regressors. Export was found to be a positive and significant function of GDP but Import was positive and non-significant. This is consistent with theory as economies grow from exporting more than they import all things being equal. This is truer in Nigerian context where the monocultural nature of the economy has mostly made it over-reliant on imported goods.

Keywords: economic growth; trade openness, model stability test, net export, gross domestic product.

I. Introduction

Over the years, there have been considerable interests and debates on the degree of influence that international trade exerts on the economic growth of any nation. Some frames of thought argue that increased trade activities across the borders expand the market for a country's product and make the economy attract benefits from increasing returns to scale as well as international specialization Ades and Glasea (1999), Romer (1989).

Government on the other hand, are made to exhibit a greater measure of macroeconomic discipline and avoid disruptive policy direction as they attempt to keep abreast with the demands of international competition Rajan and Zingales (2003). Economies of the world has become so intertwined that it has become apparently difficult, if not impossible, for any economy to function in isolation. Gullespie, Jeanets and Hennessey (2004) observe that there is a continuing collapse of economic/trade borders and fronts and a blend of the world into one large market. Never in history have economic and trade doors been made as wide open as what we have in the world today.

With this widening trade doors comes the question of the extent to which this openness drive economic growth in nations of the world. The simple expectation is that trade openness should attract Foreign Direct Investment (FDI) which would engineer greater productivity and by extension economic growth and development.

In a country like Nigeria where the primary focus is on oil with all other exportable products seemingly held constant and the outrageous level of importation, does the perceived positive and significant influence of openness and economic growth hold waters. It is on this premise that a study of openness and economic growth is considered imperative using empirical evidence from Nigeria.

The paper is thus divided into five sections. Section one is introduction to the topic, section two reviews the literature on the topic, section three contains the methodology for the empirical studies, section four presents the analyses of data and discussion of findings while section five has summary and conclusions.

II. Literature Review

Looking at literature on a global scale, there are some evidences for and against the relationship between trade openness and economic growth.

Jenkins and Sen (2006) investigated trade flows and economic growth in four Asian and African countries. A three- case-study methodological approach was used. Factor content, growth accounting and economic modelling were adopted. The result shows that a positive relationship exists in the four countries between trade openness and economic growth.

On the other hand, Dudley and Karski (2001) studied 10 countries between 1960 to 1989 with the view to establishing whether trade openness positively affect economic growth. The findings were polarised. While evidences for three countries agree that there is a positive relationship between trade openness and economic growth, three countries show negative evidence between trade openness and economic

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growth. The other four countries' evidence showed neither negative nor positive relationship between economic growth and trade openness.

Mercanet.al (2013) studied the effect of trade openness on economic growth for most rapidly developing/develpoed countries (emerging markets; Brazil, Russia, India, China and Turkey, BRIC-T) via panel data analysis using the annualized dataset of the period 1989 to 2010.. According to empirical evidence derived from the study it was found out that the effect of openness on economic growth was positive, and statistically significant in line with theoretical expectations.

Romer (1986), Lucas (1988), Dollar(1992), Baro, Sallai, Martin(1995), Edward(1992, 1998) all asserted that a positive relationship exists between trade openness and economic growth.

Conversely, Levine and Reneth (1992), Harrison (1996), Rodriguez and Rodink (1996) took an opposite position that a negative relationship exists between trade openness and economic growth.

In Nigeria, there are also works on trade openness and economic growth with researchers taking different stance and sides in the discourse.

Kalu and Agodi (2015) examined whether trade openness makes sense, using Nigeria trade policy as yardstick. The study employed Autoregressive Conditional Heteroscedasticity (ARCH), Generalized Autoregressive Conditional Heteroscedasticity (GARCH) and Pairwise-Granger causality methodology using secondary data from 1984 to 2013. Results show that trade Adelowokan and Maku (2013) examined the effect of trade and financial investment openness on economic growth in Nigeria between 1960 and 2011. dynamic regression model was used and it indicated that trade openness and foreign investment exert positive and negative effect on economic growth respectively. The study further found a long-run relationship among trade openness, foreign investment, and economic growth in Nigeria within the period under study.

Eleanya et.al (2013) examined the possibility of a causal relationship between trade openness and economic growth in Nigeria in the pre and post SAP (1970Q1-1985Q4 and 1986-2011) periods using Augmented-Dickey Fuller and Phillips-Perron tests for unit root and Engle-Granger approach for cointegration. The results of the Cointegration test confirm that long-run relationship exist between economic growth and its determinants: trade openness, investment, and government expenditure respectively. The study is a departure from previous studies by making inter-period analyses. Engle-Granger Pair wise Causality Test was employed to test the direction of causality. A unidirectional causality ranging from economic growth to openness without a feedback in the pre SAP period (growth-led trade), whereas there exists a bi-directional causality going from economic growth to openness with a feedback effect in the post SAP period (growth-led trade and trade-led growth respectively).

This work would fill a knowledge gap by using more up to date dataset and using more vigorous diagnostics tests which would ensure that the used model is stable and the results reliable. Data characteristics consistent with time series properties will be ensured and certified with the view to ensuring that spurious results are not arrived at.

III. Methodology

This study adopts the ex post facto research method which is a very common and ideal method in conducting research in business and social sciences. It is mostly used when it is not possible or acceptable to manipulate the characteristics of the variables under study.

Simon and Goes (2013) sees ex post facto research as one which is based on a fact or event that has already happened and at the same time employs the investigation and basic logic of enquiry like the experimental method.

As for this work, there are two key reasons for the choice of the ex post facto method. Firstly, the data is primary and is collected from the Central Bank of Nigeria sources. The data-set captures already computed and reported macroeconomic variables. Secondly, the reported figures or proxies for the variables of interest are not susceptible to the manipulations or doctoring of the researcher because they are information in public domain and are easily verifiable.

The data to be used for this work is purely secondary data as it will be drawn from published works. Annual time series data obtained from the Central Bank of Nigeria annual report from 1991 to 2013 formed the basis for the empirical analyses of this work.

$$\Delta GDP = B_0 + B_1 \Delta NEXP + B_2 \Delta XP + B_3 \Delta MP + e$$

WHERE:

Bo = intercept of the relationship in the model or the constant

B_1 = coefficient of each exogenous or explanatory variable

e = the stochastic or error term

Δ= indicates the differenced series is used.

GDP=Gross Domestic Product (proxy for Economic Growth)

NEXP =Net Export (Export minus Import)

MP =Import

XP =Export

The a priori expectation of the co-efficients in the model is $B_1, B_2 > 0$, $B_3 < 0$.

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The method of estimation is basically the Ordinary Least Square Method (OLSM). Joint Unit Test will be used for all the variables to confirm stationarity. Other diagnostic tests will be done which will include:

- White test for heteroscedasticity (WGH) to indicate any possible violation of the homoscedasticity assumption of Classical Linear Regression Model (CLRM).
- Breusch Godfrey LM serial correlation test. This is based on the fact that there are inherent limitations in the use of DW-statistic which the OLS reports.
- Ramsey Reset Test for Model Stability. This is to check for any misspecification error in the model, omission of any important variables and other functional defect in the model.
- The Recursive Estimate Graph will also be used to confirm whether the model is blue and within bounds.

IV. Data Analysis and Interpretation of Results

Table 1 : Descriptive Statistics

	DMP	DGDP	DNEXP	DXP
Mean	3137308.	13860.46	2122441.	5257504.
Median	2033640.	6075.400	923879.0	2516805.
Maximum	10235174	42396.80	6033405.	14841508
Minimum	143151.2	532.6000	-336057.6	205611.7
Std. Dev.	3148479.	14209.48	2221720.	5181729.
Skewness	1.080367	0.844572	0.477932	0.756674
Kurtosis	2.873478	2.280772	1.642097	2.155382
Jarque-Bera	4.294379	3.089618	2.527777	2.753304
Probability	0.116812	0.213353	0.282553	0.252422
Sum	69020774	304930.1	46693696	1.16E+08
Sum Sq. Dev.	2.08E+14	4.24E+09	1.04E+14	5.64E+14
Observations	22	22	22	22

Source: Authors' Computation

The descriptive statistics in Table 1 above, shows the basic aggregative averages like mean, median and mode for all the observations at differenced series. The spread and variations in the series are also indicated using the standard deviation. Significantly kurtosis which shows the degree of peakedness is also shown together with skewness which is a reflection of the degree of or departure from symmetry of the given series. From the table above, the Jacque Bera Statistics which is a test for normality shows that all the distributions are playtykurtic since their kurtosis are all less than two and the p values of the JB Statistics in all the instances are greater than 5%. This suggests a departure from normality. This is consistent with behaviour economic and financial time series.

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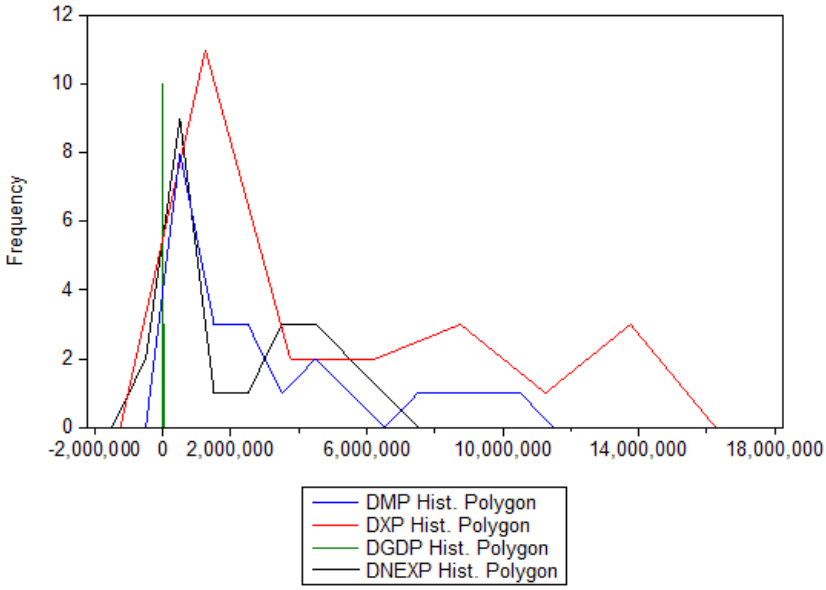


Fig.1 : Histogram(Polygon) Plot of the Differenced Series

Source: Authors' Computation

From the Figure 1 above, the variable that has the highest peak is export and the data also shows that export has the observation with the highest value. The plot also shows that the variables fall with a range. There are no much extreme and low values which makes the study of a possible linear association plausible

Test for Unit Root

A group unit root test was conducted for the variables. The results as presented below indicates that the series requires two differencing to achieve stationarity and are cointegrated of the same order. This is why the OLS was run on the second differenced series.

Table 2 : Group Unit Root Test

Group unit root test: Summary
Series: DGDP, DMP, DNEXP, DXP
Date: 07/04/15 Time: 10:48
Sample: 1991 2013
Exogenous variables: Individual effects
Automatic selection of maximum lags
Automatic lag length selection based on SIC: 0 to 4
Newey-West automatic bandwidth selection and Bartlett kernel

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-5.42313	0.0000	4	68
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-5.66042	0.0000	4	68
ADF - Fisher Chi-square	48.9229	0.0000	4	68
PP - Fisher Chi-square	412.420	0.0000	4	76

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Source: Authors' Computation

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From table 2 above, both the indicators of individual unit root and common unit root tests indicate that the p values (0.00000) are less than 5%, which makes us reject null and accept alternative that there is no unit root at second difference. This shows that the variables are jointly and severally order 2 variables.

Table 3 : Regression Results

	Dependent Variable: ΔGDP Included observation: 23 Option in OLS: *White Heteroskedasticity Consistent Errors and Covariance*				
Variables	Expectation	Coefficient	Std Error	t-statistics	P-value
ΔNEXP	+	0.002199	0.000322	6.825148	0.0000*
ΔMP	-	0.0388775	0.219670	1.769812	0.0920
ΔEXP	+	0.667538	0.203542	3.279601	0.00370*

Other OLS Estimates
$R^2$97.72%, Adjusted R^2 97.4%,
F-Statistic 428.8974
Prob(F-Statistic) 0.000000
(DW Stat 1.58)

*Note: In the stated Probability values * means significance at 5% level of significance*
Source: Authors Computation

From the summary of the estimated results above (Table 3) the relationship between trade openness and economic growth in Nigeria within the sample period and the scope of the formulated model has been tested.

A positive and significant relationship was found out between ΔGDP and ΔNEXP and ΔXP. This is consistent with apriori expectation. However, a positive but non-significant relationship was found between ΔMP and ΔGDP. This is a departure from our expected sign and direction. The R^2 which is explains that 97.7% of variation in GDP within the context of this model is explained by regressors. The Adjusted R^2 is 97.4%, this shows that there is a goodness of fit in the model. Unexplained variation is less than 3%.

The F-test 428.8974(0.0000*) shows that the overall regression is statistically significant at 5% level of significance. This evidences the fact that the overall regression can be used for meaningful analyses. Additionally, the DW statistics which is 1.58 approximately 2, by rule of thumb, rules out the suspicion of AR(1) autocorrelation and proves that the data used for the analyses is well behaved. The result of the DW statistic is to be taken with caution as it cannot detect higher order autocorrelation. We conducted a further confirmatory test for autocorrelation. The Breusch Godfrey LM serial correlation Test was used as a validity test for the DW statistics.

Table 4 : Breusch Godfrey Serial Correlation LM Test Result

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	2.162739	Prob. F(6,12)	0.1204
Obs*R-squared	11.43004	Prob. Chi-Square(6)	0.0760

Source: Authors' Computation

The result of the BG LM serial correlation test done with a lag of 6 which by rule of thumb represents one-third of the number of observations indicates that the pvalues of the F and Chi-square tests are all greater than 5%. This means that we accept the null hypothesis of no autocorrelation and reject the alternative hypothesis. This confirms the DW results and absolves the regression results of all forms of spuriousness.

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Table 5 : Test for Heteroskedaticity

Heteroskedasticity Test: White

F-statistic	10.92704	Prob. F(6,15)	0.0001
Obs*R-squared	17.90379	Prob. Chi-Square(6)	0.0065
Scaled explained SS	24.24542	Prob. Chi-Square(6)	0.0005

Source: Authors' Computation

The results of the White Test for heteroskedasticity as shown by the table above could not allow us accept the null hypothesis of homoscedasticity. To remedy this problem which is a clear violation of one of the cardinal assumptions of the Linear Regression Model, we used in the regression as reported in Table 5, the white heteroskedasticity-consistent standard errors and covariance. This gives us a more robust standard error and t-estimates as reported above.

Test for model Stability

To confirm the stability of the model over the sample period and the absence of wrong functional form and model specification error, we used Ramsey RESET (Regression Specification Error Test) and the Recursive Estimates Bound Graph.

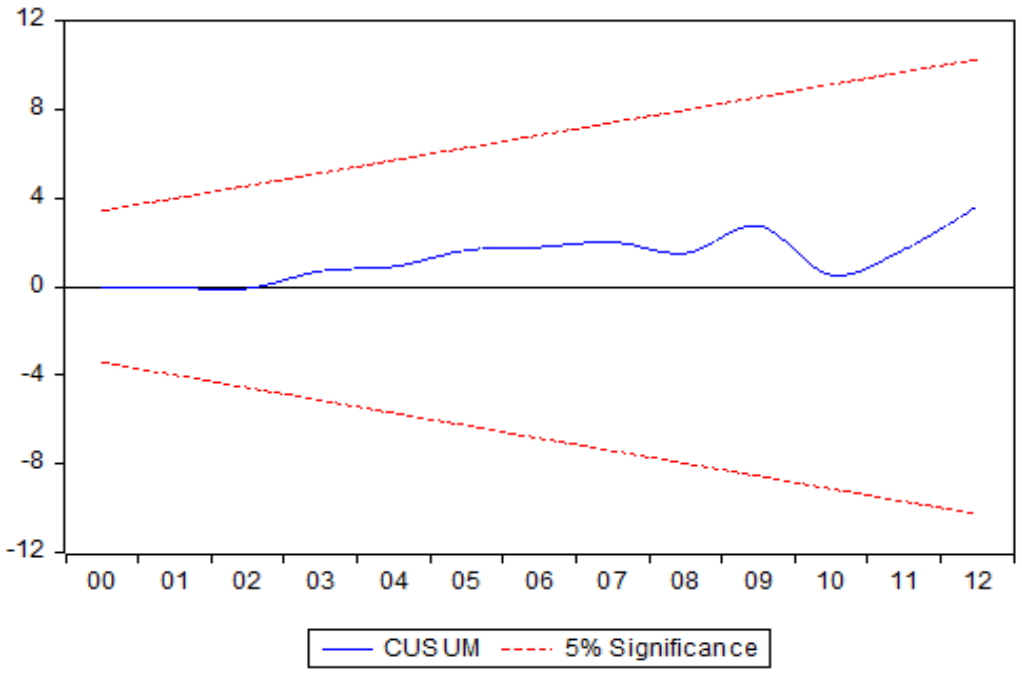


Figure 2 : Recursive Estimates Bound Graph

Source: Authors' Computation

The recursive graph shows the two red lines which are the upper and lower bounds and the blue line which is the model. This indicates that the model is blue and within bounds. The Ramsey RESET test as shown in Table 6 below, conducted on a lag of 2, shows that there is no model specification error. Indicating that irrelevant variables were not included and essential variables were not omitted.

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Table 6 : Ramsey RESET Tests Results

Ramsey RESET Test
Equation: UNTITLED
Specification: DGDP C DXP DMP DNEXP
Omitted Variables: Powers of fitted values from 2 to 3

	Value	Df	Probability
F-statistic	2.807097	(2, 16)	0.0902
Likelihood ratio	8.616753	2	0.0666

Source: Authors' Computation

V. Summary Recommendation and Conclusion

This paper analyses the relationship between trade openness and economic growth with emphasis on the Nigerian economy using a dataset covering a 23year period. The ordinary Least Square Regression method represents the principal method of estimation combined with an array of other general/standard and diagnostic tests. The motivation is to evaluate whether there is a significant contribution from trade openness proxied by net export (NEXP) to economic growth in Nigeria (GDP). The R^2 explains that 97.7% of variation in GDP in the model is explained by the principal explanatory variable NEXP and MP (import) and XP(export) which were used mainly as control variables or moderators. Export was found to be a positive and significant function of GDP but Import was positive and non-significant. This is consistent with theory as economies grow from exporting more than they import all things being equal. This is truer in Nigerian context where the monocultural nature of the economy has mostly made it over-reliant on imported goods.

There is therefore a strong recommendation and advocacy for all-round export promotion especially now that there is a strong need for changing the economy from its overdependence on foreign products.

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Effects of Sectoral Transformation of Employment on GDP in Bangladesh

By Muhammad Rabiul Islam Liton

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Abstract- Macroeconomic variables indicate the overall situation of the country, which we expect to be more consistent, stable and grow over time. The unemployment rate in Bangladesh is 5% at 2012 which is lower than world unemployment (around 6%). Labor Force participation rate is also higher in Bangladesh (73.8% in 2000). On the other hand GDP growth rate even in 2008 was 6.6% where most of the countries had a negative growth rate in their GDP. In Bangladesh, more than 2% of GDP increase due to employment growth. The labor force was 49.5 million in 2006 which becomes 53.7 million in 2009 and now 54.1 million. The growth rate has been 2.7 percentage points a year. At the same time, GDP also increase at around 6% in last decade. In GDP, the share of agriculture sector is decreasing where other two major sectors industry and services are increasing and the same thing occurs in the case of employment. This study focuses on the parallel transformation of employment and GDP and its impact on our economy.

Keywords: employment, GDP, composition, sectoral, development.

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Effects of Sectoral Transformation of Employment on GDP in Bangladesh

Muhammad Rabiul Islam Liton

Abstract- Macroeconomic variables indicate the overall situation of the country, which we expect to be more consistent, stable and grow over time. The unemployment rate in Bangladesh is 5% at 2012 which is lower than world unemployment (around 6%). Labor Force participation rate is also higher in Bangladesh (73.8% in 2000). On the other hand GDP growth rate even in 2008 was 6.6% where most of the countries had a negative growth rate in their GDP. In Bangladesh, more than 2% of GDP increase due to employment growth. The labor force was 49.5 million in 2006 which becomes 53.7 million in 2009 and now 54.1 million. The growth rate has been 2.7 percentage points a year. At the same time, GDP also increase at around 6% in last decade. In GDP, the share of agriculture sector is decreasing where other two major sectors industry and services are increasing and the same thing occurs in the case of employment. This study focuses on the parallel transformation of employment and GDP and its impact on our economy.

Keywords: employment, GDP, composition, sectoral, development.

I. Introduction

Bangladesh, small state of South-East Asia with the total area of 147,570 sq km, can't still shake off the ill-reputation of being one of the least developed countries, shadowed by miserable poverty, high illiteracy rate and a huge population of 154 million (2012 est.). In Bangladesh, Monitoring of Employment (Labor Force) Survey (MES) 2009 finds that the labor force increased from 49.5 million to 53.7 million from 2006 to 2009 and now 54.1 million. The growth rate has been 2.7 percentage points a year. The working age (ages 15-64) population about 62.7 percentage points and out of them59.3 percentage points are economically active, and 40.7 are inactive. The volume of female labor force (13.5m) is much smaller than that of male (40.2m).At the same time labor force transfers from agriculture sector to industry sector and service sector. In 1974 agriculture, industry and service sector contains 78 percentage points, eight percentage points and 14 percentage points of labor force where in 2010 it becomes 42.5, 11.3 and 46.2 percentage points respectively. On the other hand, from 1994 until 2012, Bangladesh GDP growth rate averaged 5.58 percentage points reaching an all-time high of 6.70 percentage points in June of 2011 and a record low of 4.08% in June 1994, and current growth rate is 6.32 percentage points. At the same time the, average rate of yearly decrease of GDP in agriculture is 40 percentage points whereas the average yearly increase in GDP in the industry is 37 percentage points during the FY1997-1998 to FY 2011-2012. The position of the service sector is quite stable. In the decade 1940-1950 the share of agriculture, industry and service sector was 70 percentage points, four percentage points and 26 percentage points where last decade 2001-2010 it becomes 18 percentage points,30 percentage points, and 52 percentage points respectively. Thus, there becomes a huge change in sectoral share of GDP as well as the sectoral composition of employment.

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II. Objectives

The objectives of this article are as follows-

1. Analyzing the growth trend of GDP in Bangladesh
2. Identifying the structural changes of GDP in Bangladesh.
3. Analyzing the structural changes of Employment in Bangladesh.
4. To give some recommendations for the improvement of GDP by using sectoral transformation of employment.

III. Methodology

Secondary sources are used to prepare this research-article. Mainly, web-sites, national dailies, books and statistical reports collected from various sources are used.

a) The Economy of Bangladesh

A brief discussion of Bangladesh economy may help us to understand its GDP. Economy of Bangladesh composes three main sectors-----Agriculture, Industry, and Service.

i. *Agriculture*

Agriculture sector includes crops, forestry, livestock and fisheries. Main agricultural food products are cereals, pulses, gur/sugar, milk, meat, fish, fruits, vegetables, oil, etc. Major Industrial crops are jute, tea, tobacco, etc. The total cultivable area was 2.26 crore acres in the survey of 1983-84, which decreased to 1.64 crore acres in 1995-96. Long before and after independence war, agriculture was the dominating sector in Bangladesh economy. In the years after

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independence, agricultural products increased steadily; yet it couldn't keep pace with the rapid growth of population. Rice is the main food crop in Bangladesh. Bangladesh acquired the fourth place in the world for the production of rice in the middle of the 1980s, which became possible for the use of high yielding seeds, fertilizer and irrigation. Domestic production of other agricultural products, such as, pulses, sugar, milk, meat, fish, vegetables, and oil never fulfilled requirements of the country, rather remained short.

ii. *Industry*

There are three categories of industries in Bangladesh — Large Scale Industries, Medium Scale Industries, and Small & Cottage Industries. In British and Pakistani colonial rule in Bangladesh, industries couldn't develop much. After independence, though this sector increased, it was not satisfactory. The highest growth rate of Industrial GDP was first counted as 8.1 percent in annual average in 1991-1995 at the constant prices of 1984-85. And the contribution of industry sector increase to 30 percentage points where it was only four percentage points in 1941-1950 and 11 percentage points in 1971-1980. In these years, industrial establishments and foreign investments increased significantly by the help of the government. 'According to Planning Commission Estimates, there were about 32,000 small industries and 383,000 cottage industries in 1990. The number of manufacture industries was 3,356 in 1981-82, which increased in 23,752 in 1988-89.

iii. *Service*

Recently, this is the largest sector in the percentage contribution to GDP. The contribution of the service sector in GDP is 52 percentage points in the 2001-2011 where it was only 26 percentage points in 1941-1950 and 45 percentage points in 1971-1980. Its major sub-sectors are construction, utility (power, gas, water), transport & storage, trade service, housing, public administration and defense, banking insurance and other professionals.

b) Growth Trend of GDP in Bangladesh

Growth trend of GDP shows that there is the sign of economic development in Bangladesh. Whether this trend is slow or fast, can be realized by analyzing the growth rates of Real GDP and Nominal GDP assorted in different years in the following table:

Table 1 : Growth Trend of Gross Domestic Product (GDP) in Bangladesh during 1975-2000 (at 1984/85 prices)

Year	Growth rate of Real GDP (%)	Growth rate of Nominal GDP (%)
1979-80	0.8	0.4
1980-81	3.8	3.1
1981-82	1.2	3.2
1982-83	4.9	4.6
1983-84	5.4	4.2
1984-85	3.0	3.7
1985-86	4.3	4.0
1986-87	4.2	2.9
1987-88	2.9	2.4
1988-89	2.5	4.3
1989-90	6.6	4.6
1990-91	3.4	4.2
1991-92	4.2	4.8
1992-93	4.5	4.3
1993-94	4.2	4.5
1994-95	4.4	4.8
1995-96	5.3	5.0
1996-97	5.9	5.3
1997-98	5.7	5.0
1998-99	5.2	5.4
1999-00	5.2	5.6
2000-01	5.3	4.8
2001-02	5.6	4.8
2002-03	4.4	5.8
2003-04	5.3	6.1
2004-05	5.3	6.3
2005-06	6.3	6.5
2006-07	6.0	6.3
2007-08	6.6	6.0
2008-09	6.4	5.9
2009-10	6.2	6.4

Source: Government of Bangladesh, Ministry of Finance, Economic Survey of Bangladesh 2000, (Bengali), pp. 184-185

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Analysis of Table 1: The table shows that Real and Nominal GDP change at the same direction. During 1975-76, Real GDP was recorded as 293820 million takas, which from the next fiscal year increased slowly and it continued until 1993-94 in Bangladesh. The size of Real GDP grew twice after 20 years in 1994-95. Real GDP increased into $ 116.4 billion in 2012. From 1975 to 2010, the growth rate of Real GDP fluctuates from 1 to 6 percent. The highest growth rate was counted as 6.63 percent in 2007-08, and the lowest rate found as 0.8 percent in 1979-80. Most of the years, the growth rate was limited between 4 and 5 percent. During the 1990s, the growth rates of Real GDP increased more visibly than those estimated during the 1980s. This economic development was helped by the fall in the population growth rate. The population grew at 2.2 percent annually during the 1980s, while the growth rate of Real GDP was low. But population growth rate reduced to 1.7 percent during the 1990s. In last decade (2000-2010) GDP increase more consistently around 6 percent compared to 5 percent of the previous decade.

i. *Sectoral Composition of GDP in Bangladesh*

The rate at which industry is increasing is lower than that of the rate at which the contribution of agriculture sector is decreasing due to the demand and supply side reasons and lack of industrial policy implementation. The average yearly rate of decrease in agriculture is 40 percent points whereas the yearly average rate of increase in the industry is 37 percent points during the FY 1997-98 to FY 2011-2012 (Safiqul - 2013). The position of service sector is quite stable.

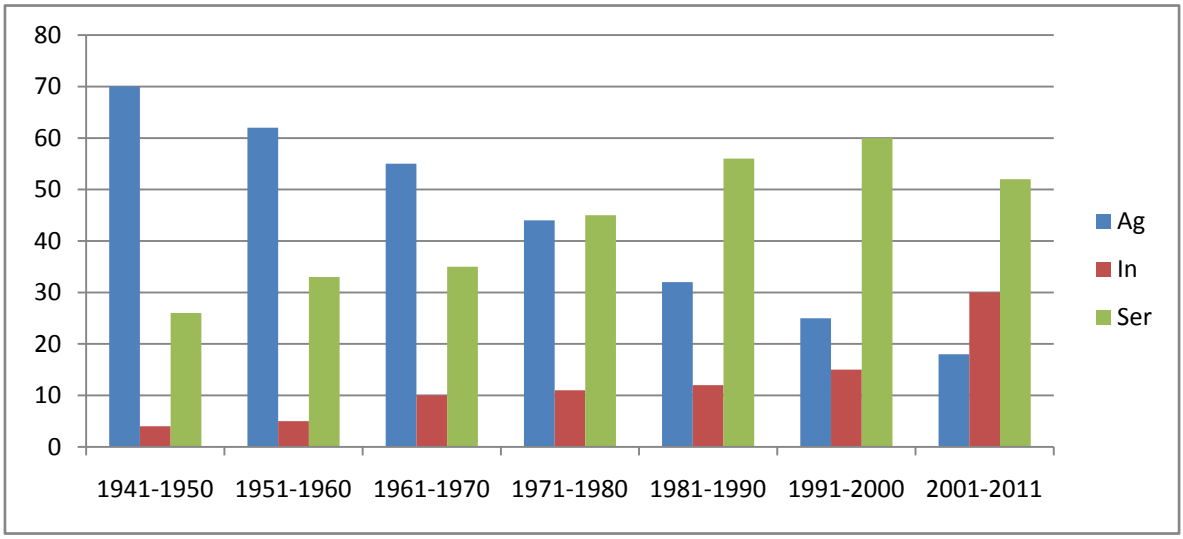


Figure 1 : Share of different sectors in GDP in Bangladesh

Source: Statistical Pocket Book of East Pakistan, different years & BBS, Statistical Year Books, different years, GOB, Economic Survey of Bangladesh, different years.

In British and Pakistani colonial rule Bangladesh economy was an agriculture-based economy. The share of industry sector, as well as service sector, was very small, and the only dominating sector was agriculture sector. In the decade 1941-1950 the share of agriculture, industry and service sector was 70 percentage points, four percentage points, and 26 percentage points respectively and in the time of the independence of Bangladesh the share of agriculture, industry and service sector was 55 percentage points, ten percentage points and 35 percentage points respectively. After obtaining the independence, government takes various steps to convert the agriculture-based economy into an industry-based economy. In the decade 2001-2011 the share of agriculture, industry and service sector has converted into 18 percentage points, 30 percentage points, and 52 percentage points respectively.

c) *Employment*

i. *Employment Trends in Bangladesh*

Bangladesh is number eight in the world according to the size of the labor force (CIA Fact Book, 2010). It becomes three times more after 40 years of the independence of Bangladesh. Employment also increases almost at the same rate. During 1974-2010the population growth rate was around two percentage points (before the 1990s more than 2% and after 1990s less than 2%) and it was decreasing during last four decades. On the other hand, labor force increases from 21.9(m) in 1974 to 54.6 (m) in 2010.

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Table 2 : Labor Force and Employment (in million and percentage)

YEAR	Labor Force	Employment	LF gr. Rate (%)	Employment gr. Rate (%)
1974	21.9	19.4		
1981	25.9	23.0	2.4	2.5
1984	28.5	25.2	3.3	3.1
1985	29.5	26.1	3.5	3.6
1986	30.9	27.4	4.5	5.0
1989	33.3	29.5	2.6	2.5
1991	35.5	31.7	3.8	3.7
1996	36.1	34.8	2.2	1.9
2000	40.7	39.0	3.0	2.9
2003	46.3	44.3	4.3	4.3
2006	49.5	47.4	2.3	2.3
2009	54.4	51.9	3.2	3.1
2010	54.6	52.6	3.6	3.5

Source: Labor Force Survey 2005 and Monitoring of Employment Survey (MES) 2009 and Economic Review, Various years.

In 1981 the population growth rate of Bangladesh was 2.35 percentage points where labor force increase at 2.4 percentage points and employment increase at 2.5 percentage points.

In 1991, this rate became 2.17 percentage points, 3.8 percentage points, and 3.7 percentage points respectively. In recent years, the labor force, as well as employment, increases more rapidly than population. In the last decade labor force growth rate and employment growth rate were more than three percentage points although the population growth rate remains between 1-1.5 percentage points. Thus, Bangladesh is benefiting by following two points. Firstly- the share of working population (ages 15-64) has been steadily rising from 40 percent in 1970 to 62 percent in 2009. Secondly- there is also a growing labor force participation rate, especially owing to increased participation rate by female working population (Planning commission of Bangladesh, Sixth Five Years Plan).

ii. *Sectoral Transformation of Employment*

Transforming Bangladesh's agrarian economy into a modern manufacturing and service based economy is a long-term challenge because most of the labors are engaged in agriculture sector. Although service sector develops rapidly, industry sector in Bangladesh remains in the primary stage.

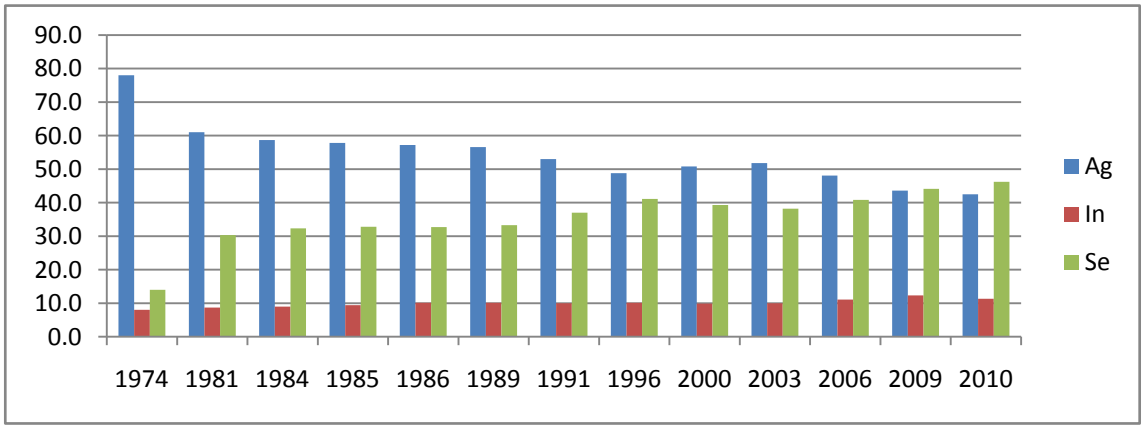


Figure 2 : Sectoral distribution of employment in percentage (1974-2010)

Source: Planning Commission of Bangladesh, Sixth Five Years Plan

In the 1970s and 1980s the performance of manufacturing sector was lack luster, growing below the average growth of the economy. Up to 2000 the share of employment in the manufacturing sector was below ten percentage points where in 1974 it was eight percentage points. But last decade it becomes 17 percentage points which is almost two times more than the previous decade. At the same time share of employment opportunity in agriculture sector decrease day by day. In 1974, it was 78 percentage points where in 2010 it becomes only42.5 percentage points. Service sector takes this opportunity. The share of employment in the service sector in the 1970s only 14 percentage points where now it is 46 percentage points and becomes dominated sector of employment in the economy. The growth rate of employment in agriculture

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sector is negative, but others two sector positive. The growth rate of employment in the service sector and industry sector are positive and in industry sector it is more consistent than service sector especially in last decade. In the 1980s, the overall employment growth rate was on average 6 percent where it more than 10 percent in the industry sector. In 2006 growth rate of employment in agriculture sector is -0.73 percent, in the service sector, is 14.18 percent and in the Industry sector it was 18.67 percent.

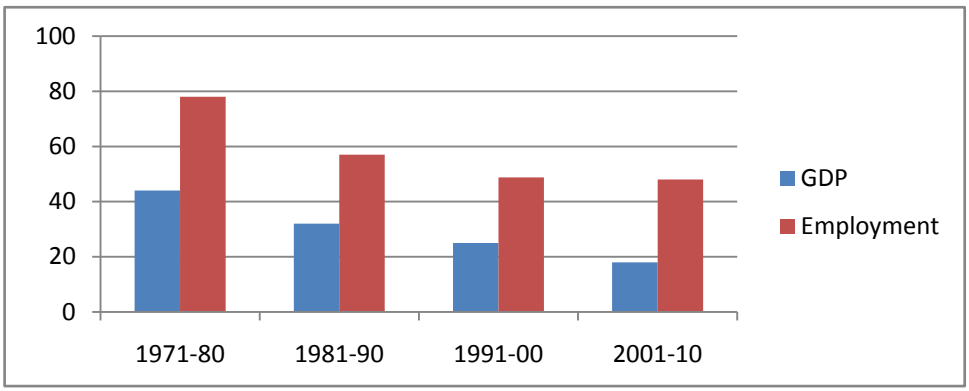
d) Empirical relationship between GDP and Employment in different sectors

Sectoral transformation of employment clearly indicates the transformation of Bangladesh's agrarian economy into a modern manufacturing and service based economy. Because during the 1970s the share of agriculture sector in total GDP is more than 75% where in 2010 it becomes only 42.5%. On the contrast after same time the GDP share of industry sector increase from 8% to 11.3% and service from 14% to 46.2%.

i. *Agriculture sector*

From the early stage Bangladesh economy was agrarian. Before the independence in1971, she was a colony of UK and Pakistan. The rulers did not give any attention to developing the economy. Rather their full concentration was on increasing economic facilities from this country. Thus, our economy remains undeveloped.

Comparison between GDP and Employment in Agriculture sector (%)

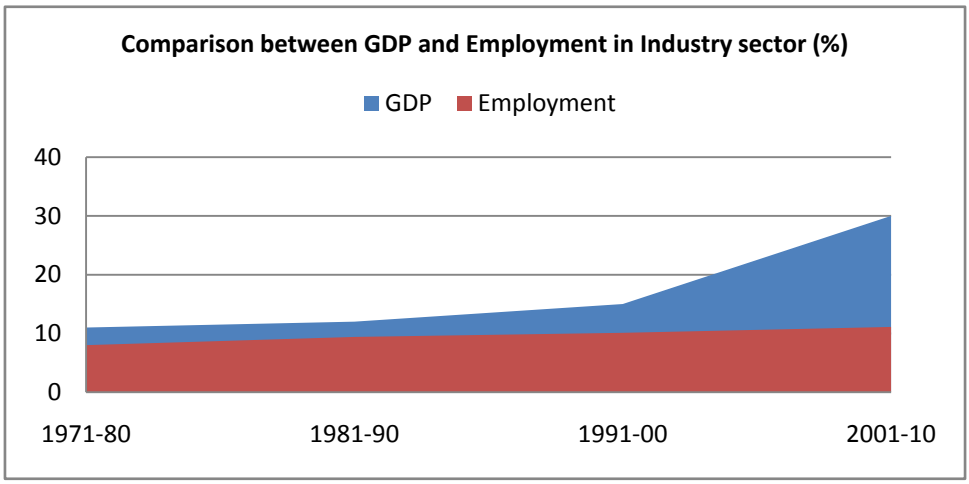


Source: Author's calculations by using data available from Bangladesh Bureau of Statistics, Bangladesh Bank, Ministry of Finance in different years.

During the liberation war infrastructure and economic system destroyed. It takes many years to overcome the war cost. On the other hand, our labor force was mostly unskilled. As a result, our economy remains agri-based. But with the times, other sectors become stronger, and it results in the decrease in the share of agriculture sector in GDP as well as share in total employment.

ii. *Industry sector*

Under the British and Pakistani rule industry sector of our country was neglected. Instead of developing our industry sector they collect raw materials for their industries from here. During 1980s industry sector becomes relatively stronger.



Source: Author's calculations by using data available from Bangladesh Bureau of Statistics, Bangladesh Bank, Ministry of Finance in different years.

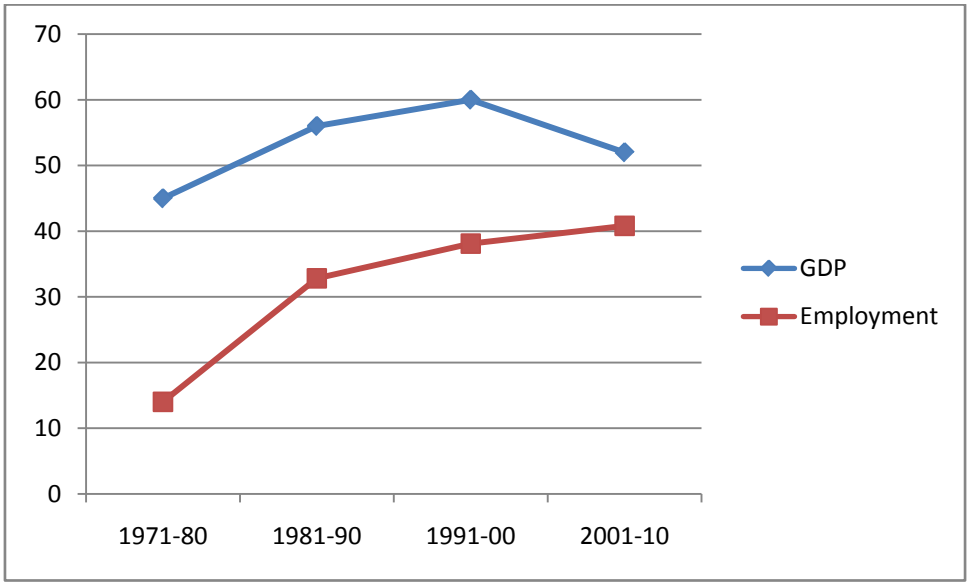
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After 1980s due to taking some necessary steps and political stability under the democratic government the GDP share increases but employment share remains more or less stable.

iii. *Service sector*

Service sector takes benefits from both agriculture and industry. With the time share of agriculture sector decrease but industry sector could not increase at proportional rate. Service sector has taken this chance.

Trends of GDP and Employment in Service sector (%)



Source: Author's calculations by using data available from Bangladesh Bureau of Statistics, Bangladesh Bank, Ministry of Finance in different years.

Now it becomes the key sector of our economy. Although in the last decade both GDP and employment share decrease, the total volume of service sector increase.

IV. Recommendations

In Bangladesh, the labor force increased from 21.9 million to 54.6 million from 1974 to 2010. The working age (ages 15-64) population about 62.7 percentage points and out of them 59.3 percentage points are economically active, and 40.7 are inactive. Thus, if we can activate these labors economically, they must contribute to GDP.

About 50% of population in Bangladesh is female. But the volume of female labor force (13.5m) is much smaller than that of male (40.2m). That means that a lot of female worker are not interested in works. For developing our economy we have to employ this part of population.

Although the unemployment rate in Bangladesh is 5% at 2012 which is lower than world unemployment (around 6%). The lower unemployment refers to a large contribution of the labor force in GDP and an indicator of a developing economy. But this unemployment and disguised unemployment must be reduced because 40.7% labor force has no contribution to GDP.

The sectoral composition of growth has to change in favor for a much higher share of modern manufacturing and organized services to create a more rapid expansion of good jobs and GDP. In Bangladesh, during 1991 to 2003 industry is the most employment intensive sector with an employment elasticity of 0.78, followed by agriculture (0.35) and services (0.03). Thus, the employment responsiveness of growth in manufacturing needs to increase to absorb more labor. Thus, by developing industry sector we can employ our unemployed people and it results in increasing GDP.

V. Conclusion

Dr. Debapriya Bhattacharya, Executive Director of Centre for Policy Dialogue (CPD), recommends that if the GDP growth rate of Bangladesh rises to 8 percent and sustains this position constantly, Bangladesh may develop in 2020. By raising the growth rate of exports to 20.83 percent and reducing the growth rate of imports to 17.58 percent, we can achieve this desirable growth rate of GDP. With his valuable comment, the following issues can also be considered to improve GDP growth rate. Agricultural and Industrial GDP are small in recent years, but Service Sector's GDP is swelling. This kind of imbalanced swell of one sector except other two causes inflation. The contribution of all sectors to GDP needs to

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increase equally. The government should take necessary steps to use labor force, an important factor of production, efficiently. In this way, the burden of the nation (population) converts into the assets and can contribute to the GDP. Finally, proper management and efficient use of employment results in growth in GDP.

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Does the Economy Size Affect FDI?- Evidence from Western Balkan Countries (2005-2014)

By Xhavit Islami & Enis Mulolli

University of Prishtina, Kosovo

Abstract- This study treats the relationship of economy size of Western Balkan countries with Foreign direct investment (FDI) for ten years' period. Through knowing the FDI importance in economic development is measured the impact of economy size of Western Balkan countries in attracting foreign direct investments. Data to realize this study were taken from World Bank, in yearly frequence for 2005 to 2014 period. After using Pearson Correlation technique for empirical analysis which is realized with SPSS v. 21.0, statistical program. Results showed that there is a positive relationship that is not statistically important. From this result is clearly shown that factors for foreign direct investment attracting is not economy size, but FDI attraction is influenced more from specific policies of places and trade liberalization.

Keywords: FDI inflow, GDP growth rate, economic development, western balkan, trade liberalization.

GJMBR - B Classification : JEL Code : E00



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Does the Economy Size Affect FDI?- Evidence from Western Balkan Countries (2005-2014)

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Abstract- This study treats the relationship of economy size of Western Balkan countries with Foreign direct investment (FDI) for ten years' period. Through knowing the FDI importance in economic development is measured the impact of economy size of Western Balkan countries in attracting foreign direct investments. Data to realize this study were taken from World Bank, in yearly frequence for 2005 to 2014 period. After using Pearson Correlation technique for empirical analysis which is realized with SPSS v. 21.0, statistical program. Results showed that there is a positive relationship that is not statistically important. From this result is clearly shown that factors for foreign direct investment attracting is not economy size, but FDI attraction is influenced more from specific policies of places and trade liberalization.

Keywords: FDI inflow, GDP growth rate, economic development, western balkan, trade liberalization.

I. Introduction

Foreign direct investments are considered as important indicators for developing developed places and not enough economically developed. Foreign Direct Investment (FDI) is an important source of development financing, particularly for developed and less developed economies as it contributes to productivity gains by bringing in new investment, better technology, management expertise and export markets (Sahoo, P. 2012). The importance of FDI has been noticed since 1980 when borrow-giving of loans from comercial banks for places in development increase, therefore as a response of created situation for loan borrowing, a lot of places changed the access through foreign direct investments and created a favorable enviroment for investments attraction, through taking such acting as: lowering taxes and other facilities in supporting business making (Aitken & Harrison, 1999).Through the last two decades, economies in transition have finished big reforms with the purpose of creating an economy of open trade. They have faced three essential stages: a) stabilization and structural alteration programs; b) reform of the legal and regulatory framework; and c) industrial competitiveness and regional cooperation policies to reap economies of scale in production and to increase firm-level capability building (UNCTAD, 2013).

The impact of FDI in host places is multiplied as in technologic development as well as in knowledge advance, through importing new technology as well as people with education and different experiences. FDI is an important tool that facilitates transferring technology from developed places for places not so developed (Islami, Xh. et al, 2016). Therefore, in capitalist economy the FDI role is very important for local economic growth and for increasing general productivity for places not enough developed.

In Western Balkan through ten years' period has been changed in frequency of investments through having a decrease after global economy crises of the year 2008, when the power of investments of developed places has been weaken a lot and the risk of their investment in that period of time is increase as a result of economic and financial non-stability in places of Western Balkan. After FDI stagnation as a percentage of GDP from 2002 till in 2005 year, FDI fluxes are increased steeply whereas the global and financial crisis hit the main interested places in 2007 year (UNCTAD, 2013). The objective of FDI in emerging developing countries is to tap the domestic market, and thus market size desides market seeking FDI. The size of the market or per capita income are indicators of the sophistication and breath of the domestic market. Market size is an important factor determining FDI as it provides potential for local sales, greater profitability of local sales to export sales and relatively diverse resources, which make local sourcing more feasible (Wang, Z. Q., & Swain, N. J. 1995).

In this study economy size is evaluated with GDP at market price. Why is this indicator taken to evaluate the economy size? One of the main indicators for economy size of a place is GDP that contains consume, investment governmental costs and netoexport (GDP=C+I+G+Exn), so it is considered as the main variable about economy of a place. So, with this study we want to measure that if the economy size influences which in the concrete case is evaluated with GDP at market price in attracting FDI inflows. This study gives a review of long- term relationship in between economy size of Western Balkan and attracting foreign direct investment in this region. And helps top redetermine main factors that can be seen as important indicator to attract foreign direct investments.

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a) Study objectives

Through referring the writings in the abstract and in introduction, it can be understood that the aim of this study is to:

- Express empirically the impact of economy size of places of Western Balkan in attracting FDI inflow for 2005 to 2014 period.
- To show the long-term relationship in between economy size of places with FDI inflows (for ten years' period).
- To show politic factors for attracting of foreign direct investments.

II. Literature Review

With foreign direct investment have dealt a lot of authors that studied and analyzed their relationship with legal, politic, geographic factors in order to clearlify their role in developing host place as well as identifying different factors to attract foreign direct investment. The literature suggests that FDI improves raises national welfare by raising the volume and efficiency of investment through a rise in competitiveness, technological diffusion, accelerated spillover effects and the accumulation of human capital (Adolfo Maza, et al. 2013; Keller & Yeaple, 2009; Blomtsrom & Kokko, 2003).Therefore, a lot of places create policies that favorize attracting foreign direct investments. Whereas, a lot of authors made research with the purpose to identify correctly the factors which make the host place convenient to be invested from foreign investitors.

Before starting literature review should give a definition for FDI, with the purpose that the readers to understand clearly their concept. "Foreign direct investment (FDI) refers to long term participation by country A into country B. It usually involves participation in management, joint-venture, transfer of technology and expertise" (Agrawal, G., & Khan, M. A. 2011). According to Choe, J. I. (2003) in order for FDI to have a positive impact on economic growth, the country must have achieved a level of development that enables it to take advantage of the benefits of high productivity. For FDI attraction in South-East European countries talks even the rapport (UNCTAD 2013) which claims that South-East European countries are following a two-pronged strategy: First, they have been upgrading their institutions and investment policies to bring them in line with EU standards. Investment policy is one of the most advanced dimensions of policy reform in South-East Europe. All countries have created a liberal regime to attract FDI, providing equal treatment of foreign and domestic investors (national treatment), guarantees against expropriation and the free transfer of funds. Second, South-East European countries have joined regional agreements such as CEFTA, which opened to most of these countries in 2006 (with the exception of Croatia, which had joined in 2003). This agreement, which contains an important investment chapter, represents a significant accomplishment along the path to EU accession and an important stepping stone to sustainable long-term growth. Indeed, South-East European countries and the EU both consider CEFTA an important mechanism of preparation for prospective EU membership. EU-supported regional integration has proved to be a particularly efficient instrument for advancing policy reform in all areas, including investment through, for example, the Stabilization and Association Agreement (SAA)[1]. Even for economy and trade size influence in attracting FDI inflow have been dealt by a lot of authors. Kurecic, P. et al (2015) analyzed the impact of economy size and European integration in pulling foreign direct investment for 1994-2013 period. Results showed that neither in EU and in non-Eu places, the size of the place does not have impact in pulling foreign direct investments. Also, (Wei, S. J, 2000; Asiedu, E., 2002) finds that there is no significant impact of growth or market size on FDI inflows and that market size and growth impact differ under different conditions, in these studies the total real GDP introduces trade size. Whereas opposite results are expressed by (Mughal, M. M., & Akram, M. 2011) according to whom the trade size for places in development is an important factor that effects FDI inflows. Trade size, real GDP is found to have a significant positive impact on FDI inflows and from (Wang, Z. Q., & Swain, N. J. 1995; Ang, J. B. 2008; Ramirez, M. D. 2006). It is worth mentioning that from a policy point of view important factors for attracting FDI inflows are: financial development, human capital, good infrastructure, economic stability and liberalized markets (Ang, J. B. 2008; Bengoa, M., & Sanchez-Robles, B. 2003).

a) Study hypothesis

Hypothesis zero (H_0): Economy size of Western Balkans does not impact in attracting FDI inflows.

III. Methodological Approach

The aim of this study is to analyze empirical relationship in between economy size of Western Balkan places and FDI inflow. The relationship is analyzed with correlation method the main purpose of correlation is to evaluate the relationship in between variables. Our model for economy size impact of Western Balkan in pulling FDI inflow, is analyzed through two variables: Growth bruto product (GDP) at market prices current in dollar US[2] and FDI net inflows (BoP, current US$)[3]. The

[1] Kosova has signed an agreement with UE for SAA, which will be in power in 2016 that releases product circulation in between Kosovo and EU places.

[2] GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. Data are in current U.S. dollars. Dollar figures for GDP are converted from

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technique used to measure econometric is Pearson Correlation which is realized with statistical program SPSSv. 21.0.

Data - All data are gathered from World Bank. The data taken from World Bank data base because it presents a plausible resource and majority of the analysis of this nature are based in this data base, which allows taking the data precisely through downloading data in Excel. The analyzed data are in frequency of one year to ten years (2005-2014).

Table 1. is a guide to read correlation coefficient "r" in between variables.

Table 1 : Describing Matrix correlation

Value of r	Condition	Strength of relationship
1.00	r is one	It is a perfect relationship between the two variable
0.50	r is greater than 0.00 but less than 1.00	It is a positive relationship between the two Variables
0.00	r is zero	There is no relationship between the two variables
-0.50	r is between 0.00 and -1.00	It is a negative relationship between two variables.
-1.00	r is negative one	It is a perfect negative relationship between the two variables.

Source: Amit Saini et al (2015)

IV. Economy Size and fdi Inflow in Western Balkan Places for 2005-2014

In general, Western Balkan places have had a rapid GDP growth at market price, till in economy crisis of 2008 year (see table 2). Continuous growth from 2004 year till in 2007 year, whereas from 2008 year and after can be seen a drastic decrease of GDP at market price. This decrease from analyzed places with low consequences was Kosovo, because Kosovo is not depended from exported products and as a result it has not had lost of selling or reduction of export that can influence in GDP rate at market price. In table 2, it is introduced the going of Foreign direct investment, net inflows (% of GDP) for the period which is the object of this study.

Table 2 : GDP at market prices (current US$) period (2005-2014)

Year / Economy	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
	%	%	%	%	%	%	%	%	%	%
Kosovo	2.7	9.1	18.5	17.7	-0.6	3.1	14.8	-2.9	8.8	4.4
Albania	11.5	10.2	19.0	20.4	-6.5	-1.0	8.1	-4.4	3.7	3.4
Montenegro	8.9	19.4	36.1	23.2	-8.4	-0.1	9.6	-9.9	9.2	2.8
Macedonia, FYR	10.1	9.6	21.5	18.9	-5.1	0.1	11.6	-7.1	10.5	5.2
Croatia	9.2	11.1	19.1	17.3	-11.0	-4.8	4.3	-9.3	2.3	-1.1
Bosnia and Herzegovina	8.8	15.1	23.0	21.2	-7.7	-2.4	8.7	-7.7	5.5	2.5
Serbia	5.6	16.6	31.6	22.3	-13.5	-7.4	17.8	-12.3	11.7	-3.6

Source: Authors, data are taken from world bank

domestic currencies using single year official exchange rates. http://data.worldbank.org/indicator/NY.GDP.MKTP.CD

[3] Foreign direct investment refers to direct investment equity flows in the reporting economy. It is the sum of equity capital, reinvestment of earnings, and other capital. Direct investment is a category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise that is resident in another economy. Ownership of 10 percent or more of the ordinary shares of voting stock is the criterion for determining the existence of a direct investment relationship. Data are in current U.S. dollars. http://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD

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Whereas regarding Foreign direct investments crises of 2008 year does not have a huge impact meaning it had an average around the same investments as before 2008 even after this year and till 2014 year, so it can be seen around one same amplitude of FDI for Western Balkan places. (see table 3).

Table 3 : Foreign direct investment, net inflows (% of GDP) period (2005-2014)

Year / Economy	2005 %	2006 %	2007 %	2008 %	2009 %	2010 %	2011 %	2012 %	2013 %	2014 %
Kosovo	3.6	9.1	12.5	9.4	7.2	8.3	8.2	4.5	4.9	2.7
Albania	3.2	3.6	6.1	9.6	11.2	9.1	8.1	7.5	9.8	8.7
Montenegro	n/a	n/a	25.6	21.6	37.4	18.3	12.3	15.1	10.0	10.8
Macedonia, FYR	2.3	6.2	8.8	6.2	2.8	3.2	4.8	3.5	3.7	0.5
Croatia	4.0	6.5	7.6	7.4	5.1	2.4	2.3	2.6	1.6	6.9
Bosnia and Herzegovina	5.7	6.7	11.9	5.4	0.8	2.6	2.6	2.3	1.9	2.7
Serbia	7.8	16.2	11.0	8.2	6.9	4.3	10.6	3.1	4.5	4.6

Source: Authors, data are taken from world bank

Whereas in table 4, it is presented the average value for each state of Western Balkan for GDP value of growth rate even for variable share of FDI in GDP, in the way that these value are entered in statistical program SPSS and with the help of correlation analysis are reached the results of the study (see table 5).

GDP at growth rate is counted from the authors as the data in world bank are in real value and not in growth norm. The data of table 4, in the first row "Average GDP Growth rate" is counted as average of horizontal sum for each row taken from table2. Whereas in the second part "Average share of FDI in GDP" is counted as an average of horizontal sum of each row taken from table 3.

Table 4 : The average share of FDI in GDP and the average GDP growth rate in Western Balkan places

Economy	Average GDP Growth rate	Average share of FDI in GDP
Kosovo	7.6%	7%
Albania	6.4%	7.7%
Montenegro	9.1%	16.8%
Macedonia, FYR	7.5%	4.2%
Croatia	3.7%	4.6%
Bosnia and Herzegovina	6.7%	4.3%
Serbia	6.9%	7.7%

Source: Authors, data are taken from World Bank

V. Empirical Founding and Testing Hypothesis

In all surveys found in academic literature for the impact of economy size, GDP at market price has positive or negative impact in attracting FDI inflows. From our analysis for the impact of economy size of Western Balkans in attracting FDI inflows results as in the proceeding. Independent variable GDP growth rate enter in regression analysis through explaining 29.4% of the dependent variable of variance FDI inflows (Adjusted R^2 = 29.4). Even though the scale of mistake in regression model is high even without statistical importance, we do not continue with presentation of regression model because the data are not important in the concrete case. In our case for testing Hypothesis zero is more convenient correlation analysis. In table 5, is presented the relationship in between variables of the study through Correlation Matrix.

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Table 5 : Correlation Matrix

Parameters	Correlations	FDI inflow	GDP growth rate
FDI inflow	Pearson Correlation	1	.642
	Sig. (2-tailed)		.120
GDP growth rate	Pearson Correlation	.642	1
	Sig. (2-tailed)	.120	

Source: Authors, data are taken from world bank, for GDP at market price and FDI inflows

In table 5. Is seen that GDP growth rate does not have statistical relationship with FDI inflow variable, for significance level (0.05).

So tested variables are positively related with a scale of correlation from 0.642, but are not statistically important for significance level 0.05 (sig. 0.120 > 0.05). Hypothesis zero (H_0) is accepted (see table 6).

Table 6 : Confirmation of hypothesis zero for p=0.05

Place	Pearson Correlation value (r) between the average GDP growth rate and the average share of FDI in GDP	P-value	NULL Hypothesis at p=0.05
Western Balkan	.642	.120	Confirmation H_0

Source: Authors, data are taken from world bank, for GDP at market price and FDI inflows

In table 6, can be seen that hypothesis zero is accepted which showed that economy size of Western Balkan is not an important factor for FDI inflows attraction. Which means that economy size of Western Balkan does not have an important relationship for long-term period of attracting FDI inflows.

VI. Discussion

Discussions of the study will be focused in finding the potential factors that attract foreign direct investments. Based on the results from empirical analysis is expressed that economy's size is not a pre-determined factor for FDI inflows attraction. Through not showing GDP growth rate as statistically important variable. Same results are shown even from the other studies (Wei, S. J, 2000; Asiedu, E., 2002; Kurecic, P. et al 2015).Therefore, in the preceding will be treated the factors that influence in investitors decision to invest in host place.

Before making an investment, investors look at certain major economic policy issues particularly relating to trade, labor, governance and the availability of physical and social infrastructure. However, some of the fundamental determinants of FDI, such as geographical location, resource endowment and size of the market, are largely outside the control of the national policy (UNCTAD, 2003).Nevertheless, national economic policies can facilitate and help create a conducive investment environment so that FDI inflows become consistent with the economic potential. Sound macroeconomic fundamentals, along with other factors such as high and sustained growth, macro-economic stability, and world-class infrastructure, and pro-reform policies influence the decision of investors in a host country (Sahoo, P. 2012).

- Creating suitable conditions for foreign investitiors (inside and outside region) has to do with state or region integration inside one huger organization of trade. Liberalization of trade place of place that offers free trade functioning is considered as main factor that opens the doors of minds of foreign investitors and considered the possibility of investment in that place. That trade size is included in Regional trade agreements (RTA) has an apparent positive effect in FDI inflows, see for example (Jaumotte, M. F. 2004).
- Human capital of host place is considered as pulling factors for foreign investitors. In Western Balkan places have huger scale of unemployment this decides foreign investitors before two different situations. In one side of higher unemployment norms makes places of Western Balkan attractive to invest as a result of free employee power. Employ is a constituent part of product costs, free power of employee that offers investitor to produce products with lower cost. On the other side, a huge rate of unemployment norm lowers the power of buying in that place. Lowering the power of buying means low request for produced products from foreign investitor. Therefore, placed before these two dilemmas investor decides to invest in that country only if his products can be exported (traded) outside the host country. According to Singh, H., & Jun, K. W. (1995), export orientation is a powerful variable for attracting FDI. Even in this case trade liberalization for the Western Balkan countries has a

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key role in attracting FDI because trade agreements reduce transaction costs. The impact of market size on the reduction of tariffs and deportation in more trades as a factor in attracting FDI, see for example (Asiedu, E. 2006; Kok, R., & Ersoy, A. B. 2009).

- Market liberalization of the host country reduces investment risk for foreign investors, enabling a broader base of customers and a higher probability of profit which is the main goal of the investor. Aiming to liberalize investment in some industries must remove investment restrictions or reduce the costs of transactions. We ask the question, when an investor invests in another country? Answer, an investor (multinational company) invests in the host country where the cost of investment in that country in the long term is lower than the cost of exporting the product in the host country and region. For example, an American company which manufactures a product having sufficient market in Western Balkan countries and whether the cost of transportation and special rates are higher than the cost of building a production implant in any country in the region, it will make this investment. This form of investment is known as horizontal investments. For reasons of horizontal FDI and vertical FDI, see for example (Dunning, J. 1993). According to (Islami, Xh. et al 2016) great importance for foreign investors has trade integration of the host country for the main goal of investors is profit, so if an investor has to contain costs to market its product in the host country and in countries around the host country he will invest in the country. To see the benefits and costs of countries involved in regional trade agreements, see for example (Baldwin, R.E., & T. Venables, 1995)
- An important factor which foreign investors have in mind during the decision making process for investing is the functioning of law and fair competition in the host country. Economic overview of the country for fair competition and the functioning of the law is to fight informalities. At this point the Western Balkan countries do not stay well where according to (Strategjiskombtaretë RepublikëssëKosovës 2014-2018,p.5,2014) in Western Balkan countries informality ranges from 23- 38.8 % of GDP countries. This does not reassure foreign investors to efficiently implement the law and does not guarantee that the host country will be developed towards the market competition
- Infrastructure Facilities of the host country is also a factor which calculate foreign investors. In the competition between countries to attract foreign investors is the quality of infrastructure which is offered by countries such as transport infrastructure and telecommunications, electricity, water, and other services which make a convenient location to do business and enable normal functioning of the business. Even at this point some Western Balkan countries have shortcomings and it certainly is one of the reasons why FDI inflows do not mark a huge increase in recent years. The role of infrastructure in FDI inflows, see for example (Asidu, E. 2002; Ang, J. B. 2008; Sahoo, P. 2012).

It is considered that trade liberalization is a key to attracting FDI inflows, because all other factors which are considered by many authors as important for attracting FDI inflows without functioning of the free trade are ineffective. It should be pointed out that market liberalization reduced transaction costs and perceived risk as a result of harmonization of the rules for investment between countries.

But trade liberalization for Western Balkan countries where the goods will move freely without customs barriers and special charges within the Balkan states and other states, requires a series of economic and trade reforms, which must make the countries of the western Balkans. Of all the countries in the study only Croatia is a member state of the EU, this means that other countries still not good image for foreign investors and not considered as reliable and safe to invest. According Cviic & Sanfey (2010), the Balkans may still face an image problem "Troubled conjures up images of war and conflict, Rather than Foreign Direct Investment into transition Investment Opportunities and Economic Potential Economies". Political problems that Western Balkan countries among themselves reflect this region as dangerous and unattractive to foreign investors. These are the main factors that are considered as a barrier to the growth of FDI in recent years.

Western Balkan countries therefore need to create pro-reform policies for FDI inflows and to develop effective strategies that promote the country to potential investors.

According to empirical data (UNCTAD, 2013) That suggests REIOs Such membership in CEFTA nor contributes to larger FDI inflows, soft only in Conjunction with other Factors Such as overall in the Investment Reforms and Macroeconomic Stability regime.

Although Western Balkan countries as the majority of other countries in transition focus on key economic policy the promotion of foreign investment has not very positive results. Therefore, the Western Balkan countries in order to be more suitable for foreign investments should enable equal treatment of foreign investors with local judges, allow the free transfer of the means of production, to guarantee the expropriation, to avoid procedures excessive bureaucratic develop transparent investment strategy and adopt appropriate legal infrastructure which does not discriminate against foreign investors. Others already have to take some preferential policies for foreign investors in order to

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attract them as: changes in the tax structure, allows tax relief for a period of time (grace period in taxes), you allow the importation of duty-free manufacturing equipment, the design scheme offers advantages host country, to develop guidelines for credit and foreign exchange, allowed unrestricted employment of foreign knowledge workers (Islami, Xh. et al, 2016).

VII. Conclusion

This study treats the relationship of economy size of Western Balkans with foreign direct investments (FDI) for ten-years period. According to literature FDI has an important role in economy size of host places. The data to realize this study are taken from world Bank for the period of 2005 to 2014. The results of this study show that there is a positive relationship in between economy size and FDI attracting but this relation is not important statistically. Which means that economy size of Western Balkan does not have an important relationship in long- term period to attract FDI inflows. From this result is expressed clearly that factors for attracting foreign direct investment is not economy size but attracting FDIs that is more influenced from specific policies of the places. Trade liberalization for Western Balkan places are considered as important factor for foreign direct investment attraction. Besides orientation from trade liberalization Western Balkan places must create a wide range of facilities and conditions for foreign investitors. To offer same treatment of foreigners with the native, to offer free transferring of product equipment, to guarantee non-ownership, to leave aside not necessary autocratic procedures, to implement transparent strategy of investments and to adopt convenient legal infrastructure that does not discriminate foreign investitors. Besides that, some other polies should be taken even some favorable policies for foreign investitors with the purpose of their temptation as: changes in tax structure, to offer free from taxes for a period of time (grace period in taxes), to offer importation of productivity equipment without costumes, to implement some of priorities that are offered from host place, to implement guide for credit and value exchange, to allow unlimited employment of foreign employee. This study makes a significant contribution to the scientific and academic value, to the impact of economy size of Western Balkan in attracting FDI inflows, in the region and beyond.

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Data Appendix

In this part are presented some charts that give basic information for Western Balkan places. In *Chart 1*, is presented in percentage the participation of each place in general GDP of Western Balkan for the period 2005-2014. In *Chart 2*, is presented in percentage, the participation of each place in general FDI for Western Balkan for 2005-2014.In *Chart 3*, is presented the general average of investments for Western Balkan places for 2005-2014.In*Chart 4,*is presented The average share of FDI in GDP and the average GDP growth rate in Western Balkan places, for 2005-2014.

Participation of Western Balkan states in GDP

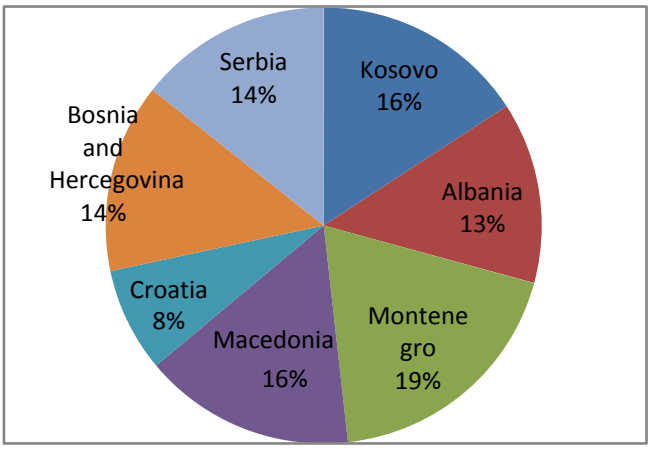


Chart 1

Participation of Westen Balkan states in FDI

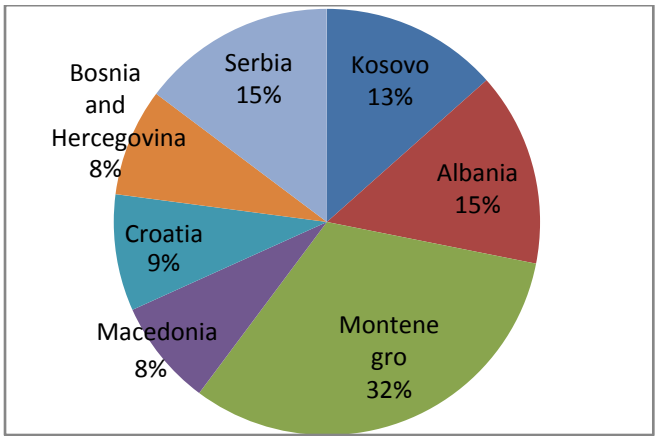


Chart 2

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Chart 3 : Investments in Western Balkan from 2005-2014 as an average of all states

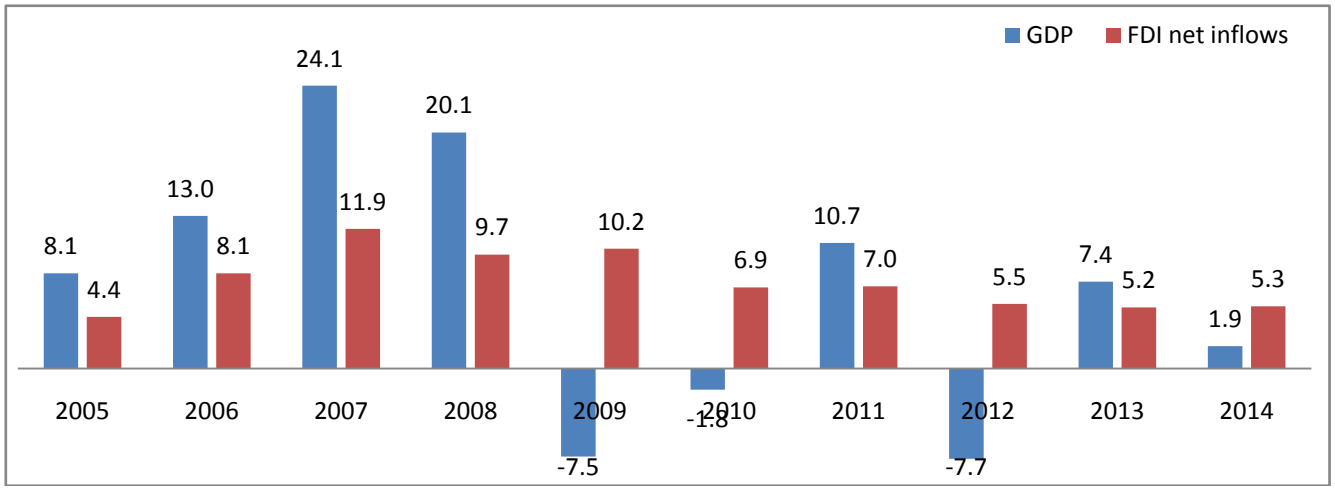
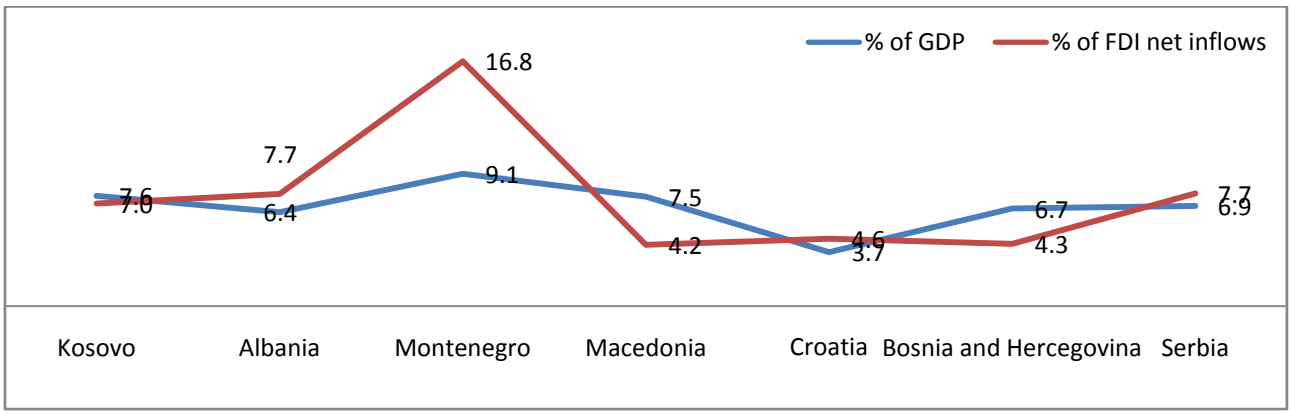


Chart 4 : The average share of FDI in GDP and the average GDP growth rate in Western Balkan places



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Tax Productivity in Post Reform Ethiopia

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Abstract- The paper was designed to analyze tax productivity in post reform Ethiopia from 1991/92 to 2013/14 using ARDL co-integration approach. Tax productivity is defined in terms of tax buoyance and tax elasticity. Tax Elasticity were estimated by adjusting total tax revenue data using proportional adjustment method. In its analysis the study founds buoyance coefficient of 0.95 which is less than unit. It implies that for a one percentage increases in economic growth revenue from total tax system grows on average by 0.95 percent. The implication is that a decreasing proportion of incremental income was transferred to the government in terms of total tax revenue. The elastic coefficient of 2.12 implies that for a one percentage increases in automatic economic growth rather than any discretionary tax policy, revenue from total tax system grows on average 2.12 percent. The indication is that total tax is elastic with respect to automatic economic growth and an increasing proportion of incremental automatic economic growth was transferred to the government in terms of total tax revenue.

Keywords: *tax, buoyance, elasticity, ARDL, proportional adjustment method.*

GJMBR - B Classification : *JEL Code : H20*



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Tax Productivity in Post Reform Ethiopia

Endeg Tekalegn Wolde [α] & Wondaferahu Mulugeta Demissie [σ]

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Keywords: tax, buoyance, elasticity, ARDL, proportional adjustment method.

I. Part One :- Introduction

One of the policy instrument of any government to influence the working environment of the economy in order to maximize social wellbeing is fiscal policy. Government spending, taxations, and public dept. operations are the major policy instruments of fiscal policy. In developed country fiscal policy is mainly used to maintain full employment and stabilize economic growth. Whereas in developing countries, it is used to enhance business environments, such as mobilization of resource for investment, increasing employment opportunities, price stability, and minimization of the inequalities of income and wealth for rapid and sustainable economic growth. One of fiscal policy instrument is taxation which is used to raise revenue to fund government operations, help to encourage or discourage certain activity through tax provisions, and assist in redistributions of resources (World Bank, 1990).

In developing countries the establishment of effective and efficient tax system basically faces three difficulties. The first difficulty is, the structure of their economy: it is characterized by a large share of agriculture both in terms of total output generation and employment opportunity creation, large informal sector activities and occupations, small establishments, and small wages in total national income. The other difficulty is lack of good tax administrations. This is basically due to low level of human capital development as indicated by low literacy rate and it makes difficult to combine the entire ingredients that help for good tax administration. Therefore, many developing countries end up with too many small tax sources, too heavy reliance on foreign trade taxes, and a relatively insufficient use of personal income taxes. Finally, as compared to the developed nation the political set up was less responsive to rational tax policy than developed countries. This is basically doe to political power is concentrated in the top few hands in which richer tax payers are able to prevent tax reforms that would affect them negatively (Tanzi and Zee, 2000).

By direction, a policy instrument of any economic system should have to meet public expenditure from domestic economy through taxations. To argue with this idea, the tax system of developing countries should be stable and buoyant enough so as to enable the countries meet their increasing fiscal commitment. When the tax system is stable and buoyant, there is a higher probability that its public expenditure need will be met adequately overtime. As a result, some public economists argue that this aspect of tax system may be even important than other aspects such as tax collection efficiency and neutrality. Of course assessing tax productivity is important not only because it allows us to examine the responsiveness of the tax system, but also it affects the system's equity and efficiency at the same time (Kotur and Menjo, 2012).

II. Part Two :- Literature Review

In Ethiopia, after the beginning of modern taxation in 1940s different tax reform were initiated to increases government revenue which includes: the 1942 to 1944, 1947 to 1952, and in the early 1960s during the imperial regime. Basically, those reforms are discretionary changes which includes: amendment of property tax including land and cattle in the first two phases, broaden tax bases on goods and services were introduced in the mid-1950s, the changes in rate and structure of tax on income in the early 1960s. In the post 1974 to 1991 major changes in all types of taxation were made in terms of rate and structure. This includes: widening land tax base, introductions of capital and surplus transfer from nationalized firms, different arrangements on other types of taxation were done (Wogene, 1994).

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Since 1992 different reform actions are under taken with the objectives of: a shift from reliance on high taxes rate to broaden tax bases, a shift from the taxations of productions to taxations of consumptions, a shift from the taxations of international trade to taxations of domestic transactions, a shift in the burden of taxations from the poor to the rich, to restructuring of investment objectives, and to conduct rigorous tax administrations reform. Due to those reforms a significant growth in the revenue were registered, on average 25.6% between 2001/02 to 2011/12. Total tax revenue from both federal and regional governments reaches ETB86 billion from ETB7.8 billion in 2001/02 of early reform period. Even if the share of tax revenue to gross domestic product show improvement it remain 12% of GDP in 2012 which is lower than the sub Saharan average of 15% to 16% (MoFED, 2014).

Revenue structure is designed to be flexible enough to guarantee increased revenue during economic growth without necessarily resulting to discretionary policy. To realize such argument every individual tax yield is must responsive to national income change and predominant tax in the revenue must be those with highly elastic with respect to national income change. Flexible taxation attains economic stabilization via reducing danger of inflation during boom period by using discretionary measures to guarantee a higher rise in tax revenue relative to growth in national income. During recession tax base and tax rate adjusted in order to make the fall in revenue faster than the fall in national income this mitigates deflationary situation (Moses and Eliud, 2003).

The possibility of developing country like Ethiopia to financing their budget deficit externally without causing too much distortion in macroeconomic environment is very low. The other way in which countries make additional revenue is by making discretionary tax changes. Every country must decide how best to increase its internal tax revenue. The best outcome from such changes is that the tax system will automatically yield corresponding tax revenue as income or GDP grows on sustainable basis. The response of tax revenue to the change in GDP is measured by tax elasticity and tax buoyancy. These concepts help to analyze the overall tax structure and serve as valuable analytical tools for designing tax policy (Daniel et. al, 2008).

Of course the purpose of taxation is go beyond expenditure financing and it used for production efficiency, discourage or encouraging consumption of commodities yielding negative or positive externalities, to stabilize national income, and to redistribute income and wealth in the economy. To achieve those objectives the tax system of any country should be productive which measured in terms of tax buoyancy and elasticity.

Tax buoyancy is useful to measure the performance of both tax policy and tax administration overtime. It measures the total response of tax revenue to total national income. Total response takes into account both increase in income and discretionary changes made by the tax authorities in the tax system. These discretionary changes may be on the tax rate or tax base. Thus, tax buoyancy measures the soundness of the tax base and the effectiveness of the tax rate change in terms of revenue generation (Tanz, 1988).

On the other hand, tax elasticity, measures the pure response of tax revenue to the change in the national income. It reflects only the extent in responsiveness of the tax revenue to changes in the national income. Tax elasticity calculation excludes the impact of change in tax rates and tax bases. It considers only the effects due to changes in income. The tax elasticity coefficient gives an indication to policy makers whether tax revenue will rise at the same rate as the national income rise or not. It is the ratio of the percentage change in the tax revenue to the percentage change in GDP assuming no discretionary changes has been made in the tax base or tax rate (Cashin, 1995).

Empirical results on the responsiveness of tax revenue to change in national income, and total response of tax revenue to total national income shows different outcome. Fauzia (2001) finds Elasticity and Buoyance varies within category of revenue and overall tax elasticity is also low in Pakistan. And Buoyance's are higher than their corresponding elasticity for all tax category. And he concludes an increments in revenue in Pakistan is due to enhanced tax rates and broadened tax bases rather than economic growth. Moses and Eliud (2003) finds tax reform in Kenya have a positive impact on individual tax handling and on overall tax structures. Even if VAT was a predominant tax source the reform doesn't show responsiveness of it to change in the economy.

Kotut and Menjo (2012) finds tax system in Kenya was less buoyant and inelastic which means a decreasing proportion of incremental income transferred to the government in terms of tax revenue. Later on Ochieng et al. (2014) finds even if the reforms have positive impact on tax buoyance and elasticity this was not sufficient to generate ever increasing government expenditure in Kenya. In Zimbabwe Desmond (2013) had stated the same issue and finds in the tax system except customs duty individually and generally are not buoyant. The buoyance coefficients are greater than the elasticity one this show to generate additional tax government expect to intervene via discretionary tax measures.

In case of Ethiopia, Alemayehu and Abebe (2005) had studied tax and tax reform in Ethiopia from 1990 – 2003. Their analysis is based on the distributional impact of tax incidence using the concept of concentration curve, on the bases of 1999/2000 central statistical authority's household income and consumption surveyed. Finally the distributional impact

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indicates some commodities subject to some kind of tax turned out to be progressive where as some of they tend to be regressive. And their examination of freely provided service like education suggested that non-poor benefited disproportionately from free secondary educations whereas in case of primary education more or less uniformly distributed.

The other related study in Ethiopia is conducted by Delesa and D.K. Mishra (2014) on compositions of Ethiopian domestic revenue and tax buoyancies over the period 1974/75 to 2012/13. Their finding indicates the share of each tax category to GDP remains low the tax revenue is dominated by indirect tax generally and foreign trade particularly.

The interest of the current study is to extend the implication of tax productivity with economic growth in post reform from 1991/92 to 2013/14 in term of its buoyance and elasticity. And the outputs of the finding will have greater policy implication that can stabilizes the economy with sustainable taxation over time. In analyzing tax productivity in post reform Ethiopia of 1991/92 to 2013/14, this study examine the existence of long run relationship between tax revenue and economic growth, estimates Tax productivity in terms of Tax Buoyance and Tax elasticity in post reform Ethiopia.

III. Part Three: - Method and Procedure

a) Model specification

To examine the issues of tax productivity in post reform Ethiopia the study bases itself on the following specified model. The specification of the model measures tax productivity which is response of tax revenue to change in GDP in terms of tax buoyance and elasticity.

Both tax elasticity and tax buoyance is calculated in the following formula.

$$TE \text{ or } TB = \% \Delta \text{ Revenue} / \% \Delta \text{ Base} \ldots\ldots \quad 1$$

Were; TE is tax elasticity for total or individual taxes, TB is tax buoyance for total or individual taxes, Δ (represent changes), Revenue is total or individual tax revenue, Base is total income (GDP).There is crucial difference between the tax elasticity and tax buoyance estimations. In case of estimating elasticity revenue is calculated with assumptions of no change in tax low including tax rate, tax base and tax administration reform. Elasticity show as what tax revenue would have been collected if last year's laws continued to apply this years and which taxes will yield more revenue as GDP rise with constant tax low. It is unit free and calculating it is desirable because it reduces thinking about tax system every years. Buoyance can be calculated using actual figures of tax revenue and actual base that considers tax law changes in terms of tax rate, tax base and tax administrative reform (Johnatan, 1998).

They are different practical ways of eliminating the effects of discretionary taxes change from actual taxes including proportional adjustment methods, dummy variable methods, constant rate structure methods, and division index method. In Proportionate Adjustment Method a series of adjusted tax revenue is first obtained by subtracting from the actual tax revenue in each year. This is to separate budget estimate of the revenue impact of discretionary changes in that year. The series is further adjusted by excluding the continuing impact of each discretionary change on future year's tax revenue. The method adjusts a historical revenue series according to a particular year's tax structure on the assumption that this particular tax structure is maintained throughout the period under consideration. Even if the method helps to estimating tax elasticity by eliminating the discretionary impact from actual taxes revenue it is not free from limitations. The common shortcomings are absence of data on revenue receipts directly and strictly attributable to discretionary changes in tax policy, the method assumes that the discretionary changes are as progressive as the underlying tax structure, and generally this approach is highly aggregative as compared to other methods (Ochieng et al., 2014).

For practical estimation our study uses proportional adjustment method following Kutut and Menjo (2012). Elasticity can be decomposed in to tax to income, tax to base and base to income. From policy point of view tax to base ratio is within the control of the government and base to income lies outside the control of the government. In our case we consider total tax to income elasticity.

$$T_t = e^{\alpha} Y_t^{\beta} e^{\varepsilon t} \ldots\ldots\ldots \quad 2$$

Where T_t is total tax revenue, Y_t is current real income (GDP), α is a constant term, β is an estimable parameter, e is a natural number and ε is a stochastic error term with constant variance and mean zero. Using logarithmic linear the general estimation for the buoyance of tax system becomes:

$$\ln T_t = \alpha + \beta \ln Y_t + \varepsilon_t \ldots\ldots\ldots \quad 3$$

Where T_t is total tax revenue, Y_t is current real income (GDP), α is a constant term, β is an estimable parameter, and ε is a stochastic error term with constant variance and mean zero. Considering one years to capture implementation lag of policy on tax revenue equation 3 becomes:

$$\ln T_t = \alpha + \beta_1 \ln Y_t + \beta_2 \ln Y_{t-1} + \varepsilon_t \ldots\ldots\ldots\ldots \quad 4$$

Where T_t is total tax revenue, α is a constant term, Y_t and Y_{t-1} are current and previous years real income respectively, β_1 and β_2 are buoyance coefficient for current and previous years incomes respectively, ε is a stochastic error term with constant variance and mean zero.

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In the case of estimating elasticity proportional adjustment method is used as follow to eliminate discretionary changes in tax revenue. Following Kutut and Menjo (2012) discretionary impact from actual taxes revenue can be eliminated as follow.

First it needs computations of $T_{tt} = T_t - D_t$…… 5

Where: T_{tt} is the actual collection of the T_t year adjusted to the structure of that year, T_t is the actual tax yield in the t^{th} year and D_t is the budget estimate of the discretionary change in the t^{th} years. To generate a revenue yield based on the structure of the reference year the revenue yield for each year in the sample period is adjusted as follow.

$$(T^*)_1 = T_{1,1} \ldots\ldots\ldots\ldots \quad 6$$

$$(T^*)_2 = ((T^*)_1/T_1) * T_{2,2} \ldots\ldots \quad 7$$

$$(T^*)_t = ((T^*)_{t-1}/T_{t-1}) * T_{t-t} \ldots\ldots\ldots \quad 8$$

After eliminating discretionary change from the actual tax, equation 4 re-specified as follow to estimate elasticity.

$$\ln T_t = \alpha + \beta_1 \ln Y_t + \beta_2 \ln Y_{t-1} + \varepsilon_t \ldots\ldots \quad 9$$

Where T_t is adjusted total tax revenue, α is a constant term, Y_t and Y_{t-1} are current and previous years real income respectively, β_1 and β_2 are elasticity coefficient for current and previous years incomes respectively, ε is a stochastic error term with constant variance and mean zero.

b) Data Analysis Technique

The estimation technique is based on secondary data analysis of bounds test of ARDL (Autoregressive Distributed Lag) co-integration analysis approach. While the bounds test for co-integration does not depend on pre-testing the order of integration, the variables need to either be I (0) or I (1) or mutually integrated and but not I (2) (Gloria, 2008). This approach allows us to work with the smaller sample sizes as compared to the Johansen co-integration technique. Final, the bound test model regression's by assuming some of the variables as endogenous or exogenous provides unbiased long run estimates and valid t-statics. The analysis technique basically includes lag length selection test, unit root test, co-integration test and finally estimations of tax buoyance and elasticity. All the analysis in the study were conducted using E-views 7 version software.

Lag length selection test:- In selecting the minimum lags it needed to be considered the lag selections criteria's of AIC and SBIC. In situations where all tests do not agree on lag– length AIC always selects the largest order, SBIC always selects the smallest and HQIC is somewhere in between (Lutkepohl, 2005). According to Pesaran and Smith (1998) SBIC were best criteria special in the specifications of best model with small sample data.

Unit root test:- Now we need to confirm if none of the variable is I (2) for this we need to do the Augmented Dickey Fuller (ADF) test and see the Z (t) statistic on the top if the first test statistic is smaller than all others in magnitude if they have same sign then it means that variable is I (1) when we are checking at level. Similarly you have to prove it I (0) at first difference. In the practical test of the unit root property of the variables, the paper employed Augmented Dickey Fuller test (ADF).The Augmented Dickey-Fuller (ADF) regression model has a form (Pantula, 1989):

$$\Delta y_t = \alpha + \beta t + \delta y t - 1 + \sum_{i=1}^{p} \gamma i \Delta y t - i + \varepsilon t, \text{ intercept and time trend item} \ldots\ldots\ldots\ldots \quad 10$$

$$\Delta y_t = \alpha + \delta y t - 1 + \sum_{i=1}^{p} \gamma i \Delta y t - i + \varepsilon t, \text{ intercept and no time trend item} \ldots\ldots\ldots\ldots\ldots \quad 11$$

$$\Delta y_t = \delta y t - 1 + \sum_{i=1}^{p} \gamma i \Delta y t - i + \varepsilon t, \text{ no intercept and no time trend items} \ldots\ldots\ldots\ldots\ldots \quad 12$$

Where t is the time index, α is an intercept constant, β is the coefficient on a time trend, δ is the coefficient presenting process root, ε is an independently, identically distributed residual term, yt is the variable of interest. The aim of test is to see whether the coefficient δ equals zero, which would imply that process is non-stationary, thus for the equation 10 the null hypothesis is H0: $\delta = 0$ $\beta \neq 0$, yt is non-stationary, against the alternative HA: $\delta < 0$ $\beta \neq 0$, yt is trend stationary, represents a least restricted ADF model i.e. including trend. For equation 11 excludes trends H0: $\delta = 0$ $\alpha \neq 0$, yt is non-stationary, against the alternative HA: $\delta < 0$ $\alpha \neq 0$, yt is level stationary and For equation 12 H0: $\delta = 0$ yt is non-stationary, against the alternative HA: $\delta < 0$, yt is stationary and excludes both trend and constant (Ibid).

ARDL Co-integration test: The use of the bounds technique is based on three validations. First, Pesaran *et al*. (2001) advocated the use of the ARDL model for the estimation of level relationships because the model suggests that once the order of the ARDL has been recognised, the relationship can be estimated by OLS. Second, the bounds test allows a mixture of I (1) and I (0) variables as regressors, that is, the order of integration of appropriate variables may not necessarily be the same. Therefore, the ARDL technique has the advantage of not requiring a specific identification of the order of the underlying data. Third, this technique is suitable for small or finite sample size (Pesaran *et al*., 2001).Following Pesaran *et al*. (2001), we assemble the vector auto regression (VAR) of order *p,* denoted VAR (*p*), for the following growth function:

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$$Z_t = \mu + \sum_{i=1}^{p} \beta_i z_{t-i} + \varepsilon_t \ldots\ldots\ldots\ldots \quad 13$$

Where z_t is the vector of both x_t and y_t, where y_t is the dependent variable defined as total taxations (TT), x_t is the vector matrix which represents a set of explanatory variables i.e., economic growth (REG). According to Pesaran *et al*. (2001), y_t must be I (1) variable, but the regressor x_t can be either I (0) or I (1). We further developed a vector error correction model (VECM) as follows:

$$\Delta z_t = \mu + \alpha t + \lambda z_{t-1} + \sum_{i=1}^{p-i} \gamma_t \Delta y_{t-i} + \sum_{i=1}^{p-1} \gamma_t \Delta x_{t-i} + \varepsilon_t \quad 14$$

In the above equation Δ is the first-difference operator. The long-run multiplier matrix is defined as:

$$\lambda = \begin{bmatrix} \lambda_{YY} \lambda_{YX} \\ \lambda_{XY} \lambda_{XX} \end{bmatrix} \ldots\ldots\ldots\ldots \quad 15$$

The diagonal elements of the matrix are unrestricted, so the selected series can be either I (0) or I (1). If $\lambda_{YY} = 0$, then *Y* is I (1). In contrast, if $\lambda_{YY} < 0$, then *Y* is I (0).

The VECM procedures described above are imperative in the testing of at most one co-integrating vector between dependent variable y_t and a set of regressor x_t. To derive model, we followed the postulations made by Pesaran *et al*. (2001) in Case III, that is, unrestricted intercepts and no trends.

$$\Delta(T) = \beta_0 + \beta_1(TT)_{t-1} + \beta_2(REG)_{t-1} + \sum_{i=1}^{p} \beta 3\Delta(TT)t - 1 + \sum_{i=1}^{p} \beta 4\Delta(REG)t - 1 + u_t \ldots\ldots\ldots \quad 16$$

In the equation (16) Δ, REG, TT and u_t are the first-difference operator, economic growth, taxation and a white-noise disturbance terms respectively (Bardsen, 1989). After regression of Equation (16), the Wald test (*F*-statistic) was computed to differentiate the long-run relationship between the concerned variables. The Wald test can be carry out by imposing restrictions on the estimated long-run coefficients of economic growth, tax revenues. The null and alternative hypotheses are as follows:

$$H_0 = \beta_1 = \beta_2 = \beta_3 = 0 \text{ (No long-run relationship...} \quad 17$$

Against the alternative hypothesis

$$H_0 \neq \beta_1 \neq \beta_2 \neq \beta_3 \neq 0 \text{ (A long-run relationship exists)} \ldots\ldots\ldots\ldots \quad 18$$

The computed *F*-statistic value will be evaluated with the critical values tabulated in Table CI (iii) of Pesaran *et al.* (2001). According to these authors, the lower bound critical values assumed that the explanatory variables x_t are integrated of order zero, or I(0), while the upper bound critical values assumed that x_t are integrated of order one, or I(1). Therefore, if the computed *F*-statistic is smaller than the lower bound value, then the null hypothesis is not rejected and we conclude that there is no long-run relationship between taxation and economic growth. Conversely, if the computed *F*-statistic is greater than the upper bound value, then taxation and economic growth share a long-run level relationship. On the other hand, if the computed *F*-statistic falls between the lower and upper bound values, then the results are inconclusive.

c) Variables Definitions and Proxy

Tax revenue is the summations of all individual taxes of income tax and profit, tax on goods and services, and tax on international trade measured in Ethiopian Birr. Economic growth represent by real gross domestic product is a base proxy for economic growth. All the data used in this study were time series data which are collected from MoFED, and National Bank of Ethiopia varies year report. In the process of adjusting discretionary data was generated for the period 1991 to 2005. And, since 2006 it was calculated from National Bank annual report.

IV. Part Four:- Result and Discussions

In this part the study discuss the result following the stated methodology to attain the objectives of tax productivity in the post reform Ethiopia from 1991/92 to 2013/14. The base proxy for total tax (LTT)

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and adjusted total tax (LATT), is real gross domestic product in Birr (LREG).

a) Lag Length Selections

Table 1.1 : Lag length selection criteria

Lag	AIC	SBIC
0	7.562145	7.660316
1	2.695277	2.991493
2	2.702221	3.198149
3	1.729337	2.425685
4	1.807764	2.703923

Source: Eviews 7

As shown on the table 1.1 lag length selection criteria of both AIC and SBIS strongly advise us the inclusion of three lag in the analysis. The decision role is that the lower the values of the selection criteria the better the model we can concludes.

b) Unit Root Test

As indicated below in the table 4.2.A. the unit root test at level (ADF) of our variables are non-stationary. Whereas, they became stationary after taking their first differences as presented below in the table 4.2. B. unit root test at first difference (ADF).

Table 4.2.A : Unit Root Test at Level (ADF)

Based on Akaike Information Criteria									
	Intercept			Trend &intercept			None		
Variable	Test statistics	5% critical value	10% critical value	Test statistics	5% critical value	10% critical value	Test statistics	5% critical value	10% critical value
LREG	2.12	-2.99	-2.63	-0.34	-3.63	-3.25	4.27	-1.95	-1.60
LTT	0.042	-2.99	-2.6	-1.07	-3.62	-3.2	1.17	-1.95	-1.60
LATT	1.61	-2.99	-2.63	-1.01	-3.62	-3.24	5.32	-1.95	-1.60

Source: Eviews 7

Table 4.2.B : Unit root Test at First Difference (ADF)

Variable	Intercept			Trend &intercept			None		
	Test statistics	5% critical value	10% critical value	Test statistics	5% critical value	10% critical value	Test statistics	5% critical value	10% critical value
DLREG	-4.56	-3.00*	-2.64**	-4.46	-3.63*	-3.25**	-0.99	-1.95	-1.60
DLTT	-4.65	-3.00*	-2.64**	-5.06	-3.63*	-3.25**	-4.46	-1.95*	-1.60**
DLATT	-5.30	-3.00*	-2.64**	-5.32	-3.63*	-3.25**	-0.74	-1.95	-1.60

*Source: Eviews 7. * And ** indicates the rejection of the null hypothesis at 5% and 10%.*

In general the unit root test result indicates us our variables are combinations of the same orders I (1). The variables are I (1), meaning they become stationary after taking their first differences.

c) ARDL Co-integration Test

In this part we examines the existence of or absence of long run relationship between tax revenue and economic growth in Ethiopia using the bounds co-integration test.

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Table 4.3 : Result of ARDL Co - integration Test

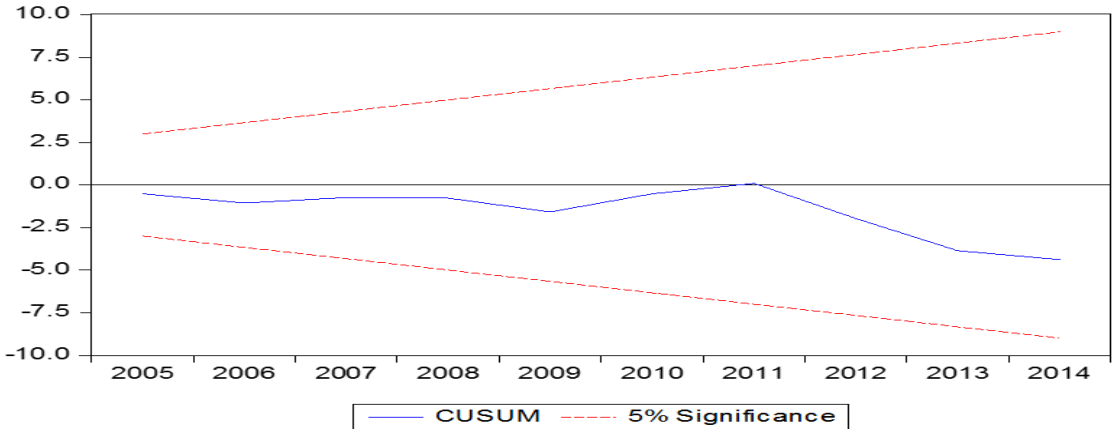
Critical value	Lower Bound Value	Upper Bound Value
1%	3.41	4.68
5%	2.62	3.79
10%	2.26	3.35

Source: Pesaran et al. (2001), Table CI (iii), Case 111: with unrestricted intercept and no trend.

The above table 4.3. Shows the Critical Values of Pesaran et al. (2001), Table CI (iii), Case 111: with unrestricted intercept and no trend at 1%, 5% and 10%. The Computed F-statistic of 417.3584 is greater than the critical values at 1%, 5% and 10% respectively. It implies that there is long run relationship between economic growth and tax revenues in Ethiopia.

Diagnostic Test LM Test; F-statistic 0.164342 Prob. F (3, 7) 0.9170

The Breusch-Godfrey Serial Correlation test of Serial Correlation Breusch-Godfrey 0.164342 (0.9170) indicates acceptance of the null hypothesis and conclusions of Error terms are serially uncorrelated. Stability Test of the model: The cusum square test for model stability test indicates that our model is stable. According to this criteria we concludes that the residual is stable when the estimated model falls between the upper and lower red lines.



Source: - Eviews-7

i. *Estimations of Tax Buoyance in the ARDL long run model*

The diagnostic test concludes that the model is stable and there is no problems of serial correlation problems in our model. So the long run coefficient of the model is estimated as follow. **ARDL of (1, 2,) the dependent variable is LTT**

Regressor	Coefficient	Standard Error	T-Ratio	P - Value
C	-7.865302	2.996775	-2.624588	0.0222
D(LREG(-1))	-0.971929	0.392511	-2.476180	0.0292
D(LREG(-2))	-0.965584	0.391572	-2.465915	0.0297
D(LTT(-1))	0.592894	0.273736	2.165931	0.0512
LREG(-1)	0.953366	0.395671	2.409493	0.0329
LTT(-1)	0.704064	0.161324	4.364283	0.0009
ECT(-1)	-0.720955	0.385827	-1.868596	0.0863

Source: - Eviews 7

The goodness of the fit of the model is supported by R-squared (0.997684) and Adjusted R-squared (0.996526) there result indicates that the model is specified very well respectively. It indicates that 99 percent of tax Revenue is explained by real economic growth which is theoretically acceptable. The result of S.E. of regression (0.065450), Sum squared residuals (0.051405), Log likelihood (29.20852), F-statistic (861.6363) and Prob (F-statistic) (0.000000) all supports that the model as a whole is significant as indicated in the appendix.

$$LTT = 7.865302 + 0.95LRE(-1)\ldots \quad 19$$

(2.996775) (0.395671)

(-2.624588) (2.409493)

(0.0222) (0.0329)

In the equation 19 the value in the parentheses are standard error, t- statistics ratio and p-values respectively, it shows that economic growth is significant in explaining tax revenue in terms of tax buoyance at 5%

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significance level. The coefficients are positive which supports the theoretical meaning of tax and economic growth relationship. The buoyance coefficient of (0.95) is less than unit. It implies that for a one percentage increases in economic growth revenue from total tax system grows on average by 0.95 percent. The implication is that total tax is less buoyant with respect to discretionary tax policy and a decreasing proportion of incremental income was transferred to the government in terms of total tax revenue. The tax system is not proportional responsive with a given Economic change in Ethiopia and not generating enough revenue through discretionary tax measures.

The coefficient of the error correction term gives the speed of adjustment of tax buoyance toward its long run equilibrium value. In our estimated model we get the correctly signed ECT 0.720955 (0.0863) which is significant at 10%. The negative sign indicates adjustment toward equilibrium and the higher coefficient (0.720955) indicates fastest speed of adjustment in case of disequilibrium in the tax buoyance. It implies that 72 percent of the previous disequilibrium are corrected for in the current period.

ii. *Estimations of Tax elasticity ARDL of (2, 2,) the dependent variable is LATT*

The goodness of the fit of the model is supported by R-squared (0.78) and Adjusted R-squared (0.64) there result indicates that the model is specified very well respectively. It indicates that 64 percent of tax elasticity is explained by real economic growth which is theoretically acceptable. The result of S.E. of regression (0.089829), Sum squared residuals (0.088763), Log likelihood (24.01933), F-statistic (5.530559) and Prob (F-statistic) (0.006277) all supports that the model as a whole is significant as indicated in the appendix.

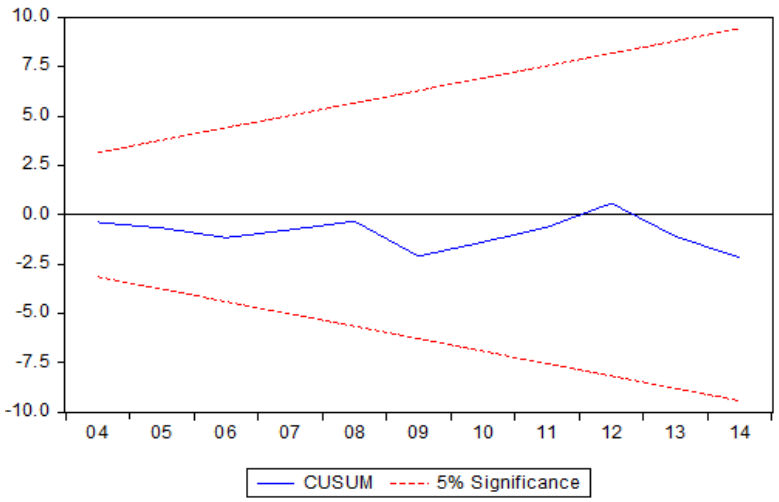
Regressor	Coefficient	Standard Error	T-Ratio	P - Value
C	-16.75709	4.044300	-4.143383	0.0016
D(LATT(-1))	0.511107	0.257158	1.987523	0.0723
D(LATT(-2))	0.363441	0.183385	1.981853	0.0730
D(LREG(-1))	-2.118662	0.531413	-3.986844	0.0021
D(LREG(-2))	-2.118770	0.531507	-3.986342	0.0021
LATT(-1)	-0.757709	0.225368	-3.362099	0.0063
LREG(-1)	2.117774	0.537585	3.939417	0.0023
ECT(-1)	-0.927056	0.359066	-2.581858	0.0255

Source: - Eviews 7

The goodness of the fit of the model is supported by R-squared (0.78) and Adjusted R-squared (0.64) there result indicates that the model is specified very well respectively. It indicates that 64 percent of tax elasticity is explained by real economic growth which is theoretically acceptable. The result of S.E. of regression (0.089829), Sum squared residuals (0.088763), Log likelihood (24.01933), F-statistic (5.530559) and Prob (F-statistic) (0.006277) all supports that the model as a whole is significant as indicated in the appendix.

Diagnostic Test:-LM Test; F-statistic 0.4083 Prob. F (2, 9) 0.6764

The Breusch-Godfrey Serial Correlation test of Serial Correlation Breusch-Godfrey 0.408381 (0.6764) indicates acceptance of the null hypothesis and conclusions of Error terms are serially uncorrelated. Stability Test of the model: The cusum square test for model stability test indicates that our model is stable. According to this criteria we concludes that the residual is stable when the estimated model falls between the upper and lower red lines.



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$$LATT = 16.75 + 2.12LREG(-1) \ldots\ldots\ldots\ldots\ldots 20$$
$$(4.04) \quad (0.53)$$
$$(-4.14) \quad (3.93)$$
$$(0.00) \quad (0.0023)$$

In the equation 20 the value in the parentheses are standard error, t- statistics ratio and p-values respectively. It shows that the sign of the coefficient of economic growth is positive which supports the theoretical meaning of tax and economic growth relationship and is significant in explaining tax elasticity at 5% significance level. The elasticity coefficient of 2.12 is greater than unit. It implies that for a one percentage increases in automatic economic growth rather than any discretionary tax policy revenue from total tax system grows on average by 2.12 percent. The implication is that total tax is elastic with respect to economic growth and an increasing proportion of incremental automatic economic growth was transferred to the government in terms of total tax revenue. The tax system is more proportional responsive with a given change in automatic economic growth in Ethiopia.

The coefficient of the error correction term gives the speed of adjustment of tax elasticity toward its long run equilibrium value. In the estimated model we get the correctly signed ECT 0.927056 (0.0255) which is significant at 5%. The negative sign indicates adjustment toward equilibrium and the higher coefficient (0.927056) indicates fastest speed of adjustment in case of disequilibrium. It implies that 93 percent of the previous tax elasticity disequilibrium are corrected for in the current period.

V. Part Five: - Conclusions and Recommendations

This study was initiated to investigate tax productivity in post reform Ethiopia of 1991/92 to 2013/14 with the specific objectives of: assessing the existence of long run relationship between tax revenue and economic growth, to examine Tax productivity in terms of Tax Buoyance in post reform Ethiopia and to assess Tax productivity in terms of Tax elasticity in post reform Ethiopia.

The Autoregressive Distributed Lag co-integration analysis approach is used in estimation to arrive at the above stated objectives. The variables are becomes stationary after taking their first differences. All the variables used in the model were co-integrated, which implies the existence of long run relationship among the variables. Based on its objective the study found that there is long run relationship between economic growth and tax revenues in Ethiopia. And this long run relationship is supported with positive signs and significant relationship between economic growth and tax revenues in the country. The correct signed and significant error correction term in the model indicates that fast speeds of convergence to the equilibrium in case of tax disequilibrium. The fitness of the model is justified by diagnostic tests of normality and stability tests.

Concerning the examinations of tax productivity in terms of tax buoyance the study founds buoyance coefficient of 0.95 which is less than unit. It implies that for a one percentage increases in economic growth revenue from total tax system grows on average by 0.95 percent. The implication is that total tax is less buoyant and a decreasing proportion of incremental income was transferred to the government in terms of total tax revenue. In other words the tax system is not proportional responsive with a given change in economic growth in Ethiopia and not generating enough revenue through discretionary tax measures. The implications of less tax buoyance is incapability of collecting proportional tax revenue from the combinations of the change in discretionary tax policy and economic growth.

In the last objectives of the examinations of tax productivity in terms of tax elasticity the study founds elastic coefficient of 2.12 which is greater than unit. It implies that for a one percentage increases in automatic economic growth rather than any discretionary tax policy revenue from total tax system grows on average 2.12 percent. The implication is that total tax is elastic with respect to economic growth and an increasing proportion of incremental automatic economic growth was transferred to the government in terms of total tax revenue. The tax system is more proportional responsive with a given change in automatic economic growth in Ethiopia and is generating enough revenue through growth in automatic economic activity rather than the discretionary tax policy changes.

The possible reason for a more elastic tax revenue is a shift in tax payers to higher bracket with current raped economic growth in the country and adjustment actions taken by the government for salary. Based on the outcome of this study we can concludes that the tax system in Ethiopia in more productive in terms of automatic economic growth. In order to secure stable economic finance which could be generated from taxations the greater concern shall be given to economic policies that can sustains economic growth in the country. The less tax buoyance could be due to less soundness of discretionary tax policy in term of tax base and effectiveness of tax change in collecting tax. This could be explained by the tax system in taxing all transactions, minimizing tax compliance and in including all economic agents to the tax payer's network.

VI. Acknowledgement

In any activities accomplishment starting from the ideal step to the end there are different persons and

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organizations behind each plans in attaining their particular target. The same is true in my paper case I would like to thank Jimma University for its commitment in financing this paper. The institution was really committed in supporting different staff and student research. This staff paper is part of the Jimma University effort in its target of encouraging academic staff's participation to investigate researches that serve the community.

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Putty Capital and Clay Labor: Differing European Union Capital and Labor Freedom Speeds in Times of European Migration

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Abstract- Globalization has led to unprecedented risks stemming from global interconnectedness. Economic trade may distribute benefits of international exchange unevenly due to fundamental barriers of distance, national borders and implicit market segmentation. In order to equalize more equitable trade prosperity, the European Union (EU) 4 freedoms of goods, services, capital and labor were established by a neoliberal policy framework and the Eurozone featuring a common currency. While there is a vital central monetary union and since the 2008/09 World Financial Crisis a common European fiscal pact, EU free movement is limited regarding labor mobility. This paper is based on the idea that the asymmetry of the mobility of labor and capital leads to the risk of an uneven distribution of gains within the European Union towards some core states against the periphery. In the light of the current European migration, the following paper offers a forward-thinking perspective on potential emergent risks arising within the European Union due to an asymmetry between the mobility of labor on the one hand and capital and goods on the other in times of mass migration.

GJMBR - B Classification : JEL Code : H29

PUTTYCAPITALANDCLAYLABORDIFFERINGEUROPEANUNIONCAPITALANDLABORFREEDOMSPEEDSINTIMESOFEUROPEANMIGRATION

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Putty Capital and Clay Labor: Differing European Union Capital and Labor Freedom Speeds in Times of European Migration

Julia M. Puaschunder

Abstract- Globalization has led to unprecedented risks stemming from global interconnectedness. Economic trade may distribute benefits of international exchange unevenly due to fundamental barriers of distance, national borders and implicit market segmentation. In order to equalize more equitable trade prosperity, the European Union (EU) 4 freedoms of goods, services, capital and labor were established by a neoliberal policy framework and the Eurozone featuring a common currency. While there is a vital central monetary union and since the 2008/09 World Financial Crisis a common European fiscal pact, EU free movement is limited regarding labor mobility. This paper is based on the idea that the asymmetry of the mobility of labor and capital leads to the risk of an uneven distribution of gains within the European Union towards some core states against the periphery. In the light of the current European migration, the following paper offers a forward-thinking perspective on potential emergent risks arising within the European Union due to an asymmetry between the mobility of labor on the one hand and capital and goods on the other in times of mass migration. The reasons for this asymmetry of the mobility of labor and capital are found in explicit labor mobility constraints that comprise of work permission requirements and sector specific restrictions while implicit drawbacks arise due to specific language, cultural and skill requirements. Within the EU full capital flows and export opportunities may gravitate trade benefits towards original EU core countries, while periphery countries that became later part of the EU are shunned from full employment. A less mobile workforce in the EU periphery is described as a reserve army of labor with social problems invisible to the core union as for remaining out of focus due to national borders and geographic distance. Trade and labor movements within the EU are analyzed with attention to export, unemployment as well as migration patterns in order to advocate for attention to labor freedom within the EU following the greater goal of Ricardian mutually-beneficial free trade in combination with societal stability enabled through a harmonious interplay of national government and European governance polity in time of European mass migration.

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I. Introduction

Globalization led to an intricate set of interactive relationships between individuals, organizations and states (Centeno and Tham 2012). Deepening nets of interactions challenge human foresight on implicit impacts of migration (Gilpin 2001). Novel transportation means and melting borders imply potential societal downfalls. As complex interdependencies may hold unknown outcomes for society, highly integrated international communities are under pressure of unexpected socio-economic developments. In seeking to shed light onto implicit system failures' socio-economic consequences down the road and potentially-disastrous outcomes of cumulative actions triggering mass movements; the currently emergent risk theory outlines unexpected dangers and insufficiently-described shadows of the invisible hand in the age of globalization of the world economy (Centeno and Tham 2012, Miller and Rosenfeld 2010).

Since the post-World War period, globalized world trade has grown much faster than world output. International trade now involves a larger number of countries and sectors than at any time in history and reaches deeper into more sectors of national economies than ever as an expanded array of goods and services has become exchangeable (Held and McGrew 2007). Trade is also unprecedentedly complex. With growing globalization and quickening of transfer speed, trade may impose unknown systemic economic, social, and political risks on a global scale (Centeno et al. 2013, Okamoto 2009, Urry 2012). Nowadays international trade has no longer limited local effects but potentially unforeseen global consequences holding societal downfalls. Trade may breed inequality such as the Agreement on Trade-Related Aspects of Intellectual Property Rights TRIPS agreement's negative externality of reducing access to affordable medicines in the developing world (Leonhardt, Keller, and Pechmann 2011, Stiglitz 2006, Summers and Pritchett 2012). Applying emergent risk theory onto international trade theories is an innovative way to explaining how the openness of economies to international markets creates

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economic winners as well as losers (Held and McGrew 2007).

In the light of globalized trade, the European Union (EU) embarked on a paths of establishing a framework of 4 freedoms to ensure mutual access to capital, goods, labor and services whilst melting down national borders. In the light of the most recent and ongoing European migration crisis, the question arises if these 4 EU freedoms are feasible and enacted in a fair and mutally-beneficial manner. Risks may emerge from negative externalities of mass migration if labor mobility is more stagnant than relocation in the light of open borders.

This paper argues that within the EU there is an asymmetry between the mobility of labor on the one hand and capital and goods on the other. More specifically, it claims that while there is mobility of capital and goods, labor is immobile. This situation may create risks within the EU as for distributing the economic benefits and gains of the EU unevenly beneficial towards the core states against some later acceded periphery regions. The paper is organized as follows: First, an introduction to the main thesis that the asymmetry of the mobility of labor and capital creates risks is established, then the argument is strengthened by underlining how an uneven distribution of the gains of the Union imply emergent risks.

In the light of qualitatively and quantitatively growing international exchange of goods and services, the demand for an in-depth understanding of how institutional global trade policy frameworks echo in socio-economic correlates has gained unprecedented momentum. New economic thinking widens the interdisciplinary lens to study emergent risks of international trade shadowing economic markets and the societal compound. In exceeding orthodox economics' insights and traditional public policy attempts to curb societal risks, heterodox economic approaches outlining socio-economics of international trade appears as real-world relevant emergent risk prevention strategy.

Through capturing the interplay of international trade and the migrating real economy, the following article is meant to shed light on international trade socio-economic downfalls within the EU in order to serve as a window of opportunity for alleviating negative externalities of emergent risks of global trade and mass migration. Pursuing the greater goal of deriving recommendations how to stabilize economic markets in the 21th century in finding an optimum balance of deregulated market systems and governmental control, the following paper investigates the EU institutional and neoliberal policy framework's impact on socio-economic developments with a transitioning society (Evans 1995). With the current policy framework shift from national governments to EU governance in the European world, decisions in one country can impact on the interest of citizens of other societies in a complex multi-faceted way, which opens a range of unprecedented trans-boundary problems challenging traditional national democracy. Currently once-in-a-lifetime-available information on European Union trade and financial zone in the post-2008/09 World Financial Crisis but in particular the current migration crises offer a unique snapshot of the prevailing Zeitgeist to portray societal downfalls stemming from emergent risks of unbalanced trade and societal movement in the age of globalization. Introducing emergent risk mitigation strategies within globalized economic markets may thus – more than ever – help avert future socio-economic crises and imbue public trust in open borders and Willkommenskultur-immigration markets through improved economic market stability and societal welfare stemming from universal access to equally-shared benefits of global trade alongside building economic opportunity.

II. European Union

a) History

The European Union (EU) is a socio-legal-economic framework of 28 European member states spanning over 1,707,787 square miles. Comprising of a population of over 500 million inhabitants (7.3% of the world population), the EU generated a GDP of 16.584 trillion US dollars in 2012, constituting approximately 23% of the global nominal GDP (20% in purchasing power parity). According to the Credit Suisse Global Wealth Report 2012, the EU owns the largest net wealth in the world guided by a system of supranational independent institutions and intergovernmental policy frameworks. Founded after World War II by the core countries Belgium, France, Italy, Luxembourg, the Netherlands and West Germany in 1957 to overcome nationalism through economic interdependence in a European Coal and Steel Community; the EU expanded and developed into a customs union of the greater European community, which accedes new member states and extends legal policy frameworks on a constant basis based on the Copenhagen criteria – including respect for democracy, human rights and the rule of law as well as a functioning market economy. The European Currency Euro was introduced in 2002 in 12 countries and is currently legal tender in 19 countries.

Following a 2007 call by ECB president Jean-Claude Trichet emphasizing the need for the EU to pursue further economic and financial integration in the aftermath of the 2008/09 World Financial Crisis; The European Treaty on Stability, Coordination and Governance in the Economic and Monetary Union was drafted in January 2012. This intergovernmental Fiscal Stability Treaty was enacted in January 2014 and ratified by 25 countries as of April 2014 in order to define mandatory deficit or debt criteria, which target at budget

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discipline and fiscal austerity measurement alongside coordination of economic policies within the European monetary union as a common European stability mechanism.

b) Neoliberal policy framework of the 4 EU freedoms of trade

In recent decades, EU trade has become regularized and systematized through the activities of EU institutions, legal treaties and neoliberal policy frameworks. As a political symbol of integration and economic stimulus, the Eurozone prospered international trade within a cohesive customs union (Jackson 1997). The development of a common European market is a core objective of the EU community. Through a system of concurrently-to-national-legislations-established legal and policy frameworks, the EU aims at free movement of goods, capital, people, services and establishment within the Eurozone.

Free movement of goods ensures goods – when circulating within the EU market – not to be subject to customs duties, discriminatory taxes or import quotas and a common external tariff on goods entering the EU market. Approximately half of all EU-trade is 'intern' and controlled by harmonized EU legislation.

Free movement of capital fosters investment fluidity of finance, shares and assets. Under the auspice of the European Central Bank governing monetary policy; the monetary union, established in 1999, introduced the EU currency in 2002, which is currently legal tender in 19 member states. The euro eases citizen and goods' transfer within the EU by eliminating exchange rate difficulties smoothening economic fluctuations through price transparency and interest rate stability.

Free movement of persons is targeted at enabling EU citizens to move freely between member states in their living, working, studying or retiring in any country by lowering administrative burdens and bureaucracy in the accreditation of professional qualifications. In the Schengen Area, border controls and passport checks between 26 European countries including 22 of the 28 EU member states have been abolished officially, yet were re-enacted due to the immigrant influx since April 2015.

Free movement of services and establishment aims at allowing self-employed people to move between member states to provide services. Legislation in this area is a residual freedom, which only applies if no other freedom holds.

Overall, neoliberal EU policy frameworks set out to widen and deepen the extent of the EU market by constantly lowering trade barriers for member states in order for EU network participants to enjoy benefits from trade, specialization, and economies of scale (Hermann 2007). Through EU integration of economic markets, the EU promises productivity increase, access to a vast array of consumer goods that are available at favorable prices and employment opportunities for those connected to the union, who are meant to gain through increased income levels and improved living standards. Yet free trade areas may also be argued to be inherently preferential and discriminatory in the eye of explicit and implicit free trade imperfections, which become blatant in the eye of the 2015 European migration (Bhagwati and Krueger 1995).

c) EU migration crisis of 2015

The ongoing European migrant crisis arose from 2012 on through the rising number of refugees coming to the EU, across the Mediterranean Sea or through Southeast Europe, applying for asylum and ultimately striving for a permanent relocation. According to Eurostat, EU member states received over 625,000 asylum applications in 2014, with Germany, Sweden, Italy and France comprising two-thirds of the total application numbers while Sweden, Hungary and Austria are among the top recipients of EU asylum applications per capita. Most immigrants come from areas such as the Middle East – foremost Syria and Iraq – but also Africa (Eritrea, Nigeria, Somalia, Sudan, Gambia) and South Asia (Afghanistan, Pakistan, Bangladesh) and the Western Balkans (Kosovo, Albania). In an attempt to control and monitor the immigrant influx, individual countries have at times reintroduced border controls within the EU. Political tension has emerged between countries willing to accept asylum seekers and others trying to discourage their arrival.

The Dublin Regulation determines that the EU member state is responsible for asylum seekers, where refugees first got officially registered and fingerprinted on EU territory, which places an unequally heavy burden on border countries in the geographical periphery of the union. Since 2015 major border controls have been re-established and ground transportation partially halted to combat the EU migrant stream. In the search for a sustainable solution of relocation and resettlement of migrants, the European Parliament currently seeks information how to integrate migrants in society legally and technically. From an economic standpoint, European officials must create viable working conditions for economic markets to swallow the massive amount of foreign labor in the wake of the unprecedented migrant influx. Whether a centralized relocation plan featuring a quota system should distribute non-EU asylum seekers around the EU member states to burden share the immigrant problem evenly or if the EU should follow country-by-country or even case-by-case approaches, is a pressing question. If Germany opens up its borders for all refugees, as Angela Merkel announced, will there be enough economic flexibility of the European labor market to cope with a mass foreign labor stream?

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d) Limitations to EU labor mobility

History, geography, borders, national culture and politics on worldwide economic integration suggest that economic globalization may be unevenly spread due to fundamental barriers of distance, national borders and market segmentation. Gravity models of international trade, which account for geographic distance, demonstrate an almost exponential decline in trade activity with distance between the trading partners (Held and McGrew 2007). Border and home bias effects mainly measure increasing economic divergence between countries and the tendency of investors or consumers to buy domestic assets and goods.

In particular, geographic borders and cultural frontiers hold labor movement barriers – a topic hardly covered in the European context. While classical political economy "perfect freedom" captures labor as fungible, malleable and homogeneous insofar as workers can learn whatever skills are required to engage in any employment, in reality natural freedom of labor obstacles exist. Despite dramatic trade liberalization with the EU over the last fifty years, significant explicit non-tariff trade barriers remain while distance, history and culture still continue to influence European trade patterns and determine European labor market patterns. Constraints on EU international trade comprise explicit and implicit obstacles. Free labor mobility is hindered by explicit field exemptions and citizenship requirements (e.g., Art 45 Abs 4 AEUV restrictions of foreign labor in national bureaucracy), but also implicit by locally required expertise such as peculiar language proficiency and national customs. In general, EU citizens do not need a permit to work anywhere in the EU. However, Liechtenstein imposes quotas that limit the number of people who can work and live in Liechtenstein for all nationals of EU countries other than citizens of Liechtenstein. Croatian citizens are also restricted by transitional arrangements to work in EU countries and required to obtain work permits in Austria, Belgium, Cyprus, France, Germany, Greece, Italy, Luxembourg, Malta, the Netherlands, Slovenia, Spain, and the UK. In reverse, Croatia restricts labor from these countries access to the Croatian labor market. Restrictions may also apply to posted workers in Germany and Austria for certain sectors. In addition, work permits are subject to bureaucratic scrutiny and their frequent renewal is mandatory. For example, EU citizens who want to remain in Austria longer than 4 months need a registration pegged to actual and ongoing work, social insurance and supportive funds without any access to Austrian social benefits. Worker migrants may also be predestined as unemployment target groups.

Implicit labor mobility obstacles comprise of educational differences, language barriers, cultural norms and local skills. EU trading regimes may lead to poor countries lacking trained workforce implying labor mobility obstacles (Semmler 2013). Currently the EU has designated by agreement with member states 24 diverse languages as official and working, but also a wealth of different dialects and linguistic diversities exists – which shadow Winston Churchill's post-WWII vision of a 'United States of Europe.' Although the EU was partly set-up to challenge the US economic market domination, compared to the US market, EU citizens face language barriers and stark national identity differences.

Another implicit downturn for labor mobility may stem from completely diverting pension schemes within the EU – featuring historically grown pay-as-you-go versus capital covering systems as well as completely differing pension standards (e.g., nationally differing pension ages, compensation schemes, double dipping possibilities allowing to work for salary and claim full pension benefits in some countries versus mandatory labor force age caps in others), which may implicitly hold workers from migration in fear of losing secured national pension status. Overall, legislation on pension transfers and tax treaty harmonization is still in infancy and migrants currently face economic, social and bureaucratic obstacles. Regulatory reform in this area is difficult to implement as taking promised pension claims away infringes national laws and lacks public support in an overall loss-averse world (Puaschunder 2015).

III. Theory

Labor inflexibility imposes unforeseen emergent risks to the EU community. In the grand picture of the 4 market freedoms, a somehow-hindered full labor mobility may lead to an implicit fallacy of composition regarding EU competition policies, which aim to ensure undistorted competition within the EU market in order to accomplish economic liberalization. As financial transfers across borders influence economic performance and stability of regions (Semmler 2011), the combination of fluid freedom of goods and finance but immobile labor may gravitate the luxuries of international trade towards a center of economically-developed EU countries, from which the periphery of the later-joining Eastern accession countries is shunned. This putty-capital-and-goods-but-clay-labor-trap implies undescribed emergent risks within the EU by distributing the benefits of free trade towards some core EU states, which may gain more from financial benefits of market-widening expansions than the periphery. The EU policy framework acting more in interest of capital and goods than labor freedoms therefore holds socio-economic downfalls for periphery countries, whose citizens may not enjoy the luxuries of free trade in an extent as the core EU.

Overall, the 4 trade freedoms' differing speeds may breed uneven development within the European compound. The current trans-border financial, goods and labor flows may grant the core increased access to

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financial and export markets, while peripheral economies remain fluctuating subject to, rather than active participants in, their operation. Understanding the EU as a multiple equilibria phenomenon (Semmler 2013), the EU policy framework leading towards the EU acting more in interest of goods and capital transfers than labor movement coupled with natural market conditions implies economic developmental drawbacks and societal inequality (Krugman 1996, Rodrik 1997). The following sections describe trade theories in order to present how unbalanced EU trade alienates the EU periphery from the benefits of international trade by labor immobility, unemployment and remigration patterns.

IV. Trade

The potential EU free trade downfalls of labor immobility in relation to more fluid capital and goods transfers may imply unfair trade patterns (Bhagwati 1999, Chang 2002). Contrary to standard economic international trade theories of Ricardian comparative advantages and the Heckscher-Ohlin model, the current EU trade framework may feature imperfect competition, in which labor faces uneven entry barriers and economic integration (Held and McGrew 2007). The synchronization of the EU trade may not have been uniform. Expenditures for mobility and skill differentiation are trade barriers for labor to move within the EU market, in which only core countries may reap the gains of trade through market expansion of goods transfer and capital control through finance mobility. In this quasi-oligopolistic framework, market entry barriers result in a small number of countries setting the price for labor. The determination of price levels by core EU countries works controlled through explicit trade barriers and is implicitly influenced by indirect labor mobility obstacles. In terms of people flows, the core of the EU economy is now less integrated with the periphery. Putty goods and capital freedom but clay labor immobility may thus lead towards absolute advantages of the economically-stronger central EU core reaping financial profits from market expansion and exporting goods to an economically-weaker periphery, which may overall be economically left behind as for hindered access to labor market development and hence standard of living improvement opportunities. This view of competition is directly opposite to strategic competition, in which entry barriers generally tend to become porous with ongoing technological and institutional development. In reality, governmental investment in firms are made in the context of the broader hierarchical society (Mittnik and Semmler 2012). The state capacity to building a favorable environment through policy interventions itself is limited as for being dependent on internal and external power relations of states and the ruling elite's impact on the state's capacity to promote industrialization and private sector adoption of novel technologies. The EU featuring concurrent national government with overlapping hierarchical control patterns of singular member states must thus account for regime dependent influences on economic correlates (Mittnik and Semmler 2012). While there is the overarching goal of free trade, national interest of a historically grown core union may oppose common governance of EU free trade endeavors.

International differences in wage costs stemming from uneven free trade within the EU lead to persistent employment imbalances and may impose uneven development. Regarding full freedom of goods transfer, those countries benefiting from goods trade have trade surpluses and thus higher rates of capital accumulation; while labor immobility between different countries and regions of the EU hinder "pure" foreign trade. Thereby profits in form of surplus value are transferred from the underdeveloped periphery to the more economically developed core regions. Since profits are an important source of growth, the transfer of profits out of the underdeveloped regions reduces growth there relative to what it could have been in the absence of the intrusion of foreign capitals. In addition, the periphery countries remain shunned from access to the extended EU labor market opportunities, which hinders factor price equalization and socio-economic development. Large and persistent differences in goods transfers and wages among the developed and underdeveloped regions of the EU thus breed socio-economic inequality over time. The following part presents descriptive results of financial flows, labor immobility and socio-economic development inequality in the EU core and periphery.

V. Results

The different speeds of goods and labor movement within the EU deepen a trend towards central EU countries' export and financial hegemony while periphery countries remain stuck in long-term unemployment through a distinct pattern of export, capital and labor immobility.

The EU grants financial access through capital freedom and a common Eurozone. After the EU Eastern accession in 2004 featuring the entrance of the eight Central and Eastern European countries – Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia – as well as Rumania and Bulgaria following in 2007 to the EU community, the core union comprising the already established EU benefitted from access to novel monetary revenues. For instance, the Austrian banking sector successfully seized the opportunity to expand their presence in the Central and Easter European banking markets in the wake of the EU enlargement. Taking into account that almost 40% of the Austrian

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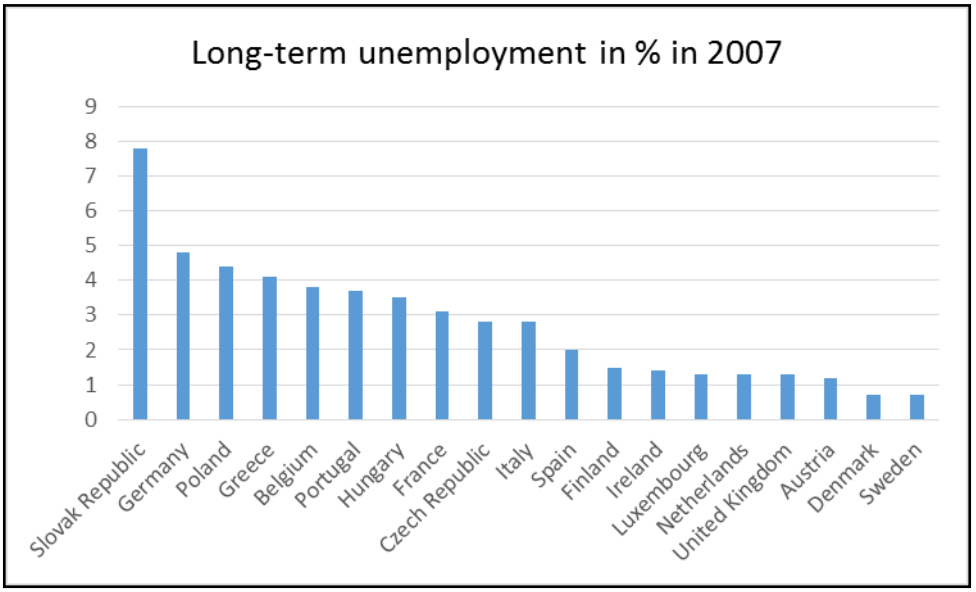
banking systems' total profits were earned by Central and Eastern European (CEE) operations around 2006 and after the EU Eastern enlargement Austria peaked at owing 65% of the Croatian banking sector, the evolution of the CEE banking markets had a substantial positive influence on the Austrian finance sector in the pre-2008/09 Crisis era (Boss et al. 2006). Capital market opening granted the core to reap banking sector revenues while imposing adjustment challenges for the more inflexible labor market.

Labor immobility can be measured in migration during 'time windows' around policy changes. During the recent opening of the Austrian employment market to Bulgaria and Romania from January 2014, there was a mild increase of 13,724 Bulgarians and Romanians moving to Austria for work as of November 2014 mainly in key qualification sectors such as medicine, IT, technical, and service industries. Lack of job openings and professional networks for non-German-speaking communities are reported as underlying obstacles causing labor stickiness.

In 2012 the overall EU unemployment rate stood at 11.4 percent. Based on the EU accession of 2004, old 'core' member states (EU 15) and EU-2004 accession 'periphery' member states (EU12) differ on employment significantly. When comparing core with peripheral countries, we find in the core a relatively lower mean unemployment rate of 7.54% – based on Austria 4.9%, Belgium 8.8%, Czech Republic 7.1%, Denmark 6%, Finland 8.1%, France 10.2%, Germany 5.3%, Hungary 8.1%, Italy 13%, Luxembourg 4.9%, Malta 6.4%, Netherlands 8.3%, Sweden 8.1%, and UK 6.3% as of 2013 and 2014 – compared to 15.04% mean unemployment in the periphery – based on Bulgaria 11.6%, Croatia 21.6%, Cyprus 17.4%, Estonia 10.9%, Greece 27.9%, Ireland 10.7%, Latvia 9.8%, Lithuania 12.4%, Poland 10.3%, Portugal 16.8%, Romania 7.3%, Slovakia 14.4%, Slovenia 13.1%, Spain 26.3% as of 2013.

Unemployment hits the European youth the hardest. Of the under the age of 25 years workforce, 23.7% were unemployed in the Eurozone and 21.9% in the overall EU as of November 2014. The youth in the core EU faces a mean unemployment rate of 18.3%, based on core countries Austria 8.9%, Belgium 21.6%, Czech Republic 15.6%, Denmark 11.4%, Finland 20.7%, France 25.4%, Germany 7.4%, Hungary 19.8%, Italy 43.9%, Luxembourg 18.4%, Malta 13.5%, Netherlands 9.7%, Sweden 23%, and UK 16.3%., while the periphery youth stands at 29.1% – such as periphery countries Bulgaria 21.4%, Croatia 45.5%, Cyprus 34.8%, Estonia 13.9%, Greece 49.8%, Ireland 21.8%, Latvia 20.3%, Lithuania 15.5%, Poland 23.2%, Portugal 34.5%, Romania 23.3%, Slovakia 29.2%, Slovenia 20.4%, and Spain 53.5% national unemployment rates – as of November 2014.

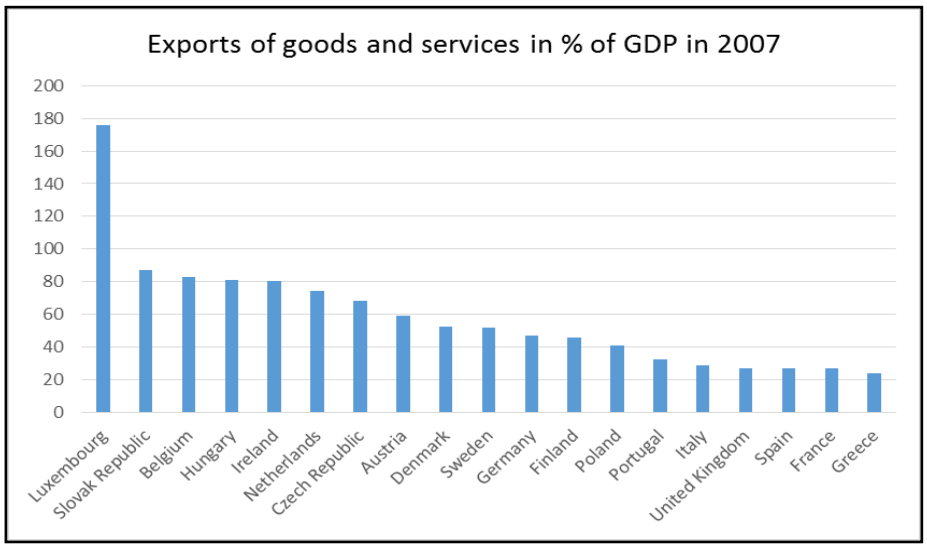
As exhibited in graph 1, long-term unemployment was highest in the Slovak Republic, Germany (with former East Germany accounting for high unemployment as ever since the reunification in 1990, the unemployment rate in the East has been almost twice that of the West), Poland and Greece in 2007.



Graph 1 : Long-term unemployment throughout the EU in 2007 (source gapminder, International Labor Organization)

In the same year 2007, export to GDP strong countries were Luxembourg, Belgium, Hungary and Ireland. Graph 2, however, displays total exports to the world, of which only around 60% may comprise EU-intern trade.

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Graph 2 : Export of goods and services in % of GDP within the EU in 2007 (source gapminder, World Bank)

A sign for 'discouraged' workers is found in immigration statistics of returning citizens. In 2012, the relative share of national immigrants, in other words immigrants with a EU citizenship to which they are returned, within the total number of immigrants was highest in Romania (93 % of all immigrants), Lithuania (88 %), Latvia (72 %), Portugal (64 %), Poland (63 %), and Estonia (58 %). These were the only EU-27 member states to report that return migration in terms of citizenship accounted for a higher than 50% share. By contrast, Luxembourg, Cyprus, Italy and Austria had relatively low shares, as return migration in terms of citizenship in 2012 accounted for less than 10 % of all immigration. Returning workers may also cut on remittances by migrants, which are an important source of foreign exchange for labor-exporting countries (Gevorkyan 2013).

Overall, the periphery appears to hold a reserve army of labor featuring a pool of unemployed available to work when needed during business expansions. Reserve army of labor is a concept originating from Hegel's work on pauperism and Karl Marx's notion of capitalism, which describes a latent body of workers that can be called upon ruling societal classes in times of economic expansion. If more workers are needed and floating unemployed pools are used up in the center, the latent peripheral workers are drawn upon. The reserve army of labor thereby acts as buffers that allows industrial workforce pick up in pace of accumulation without wage-inflationary hiring bottlenecks. A reserve army also implies wage pressure and consequently declining living standards. A reserve army of labor like situation within the European compound may impose downward pressure on worker wages while granting beneficial labor market flexibility to the industrial core. Barriers to labor market access in a competition-free environment implying labor immobility leads to some countries setting overall wage prices while pacing cheaper labor forces entering the market. This reserve army of labor may be worse than Marx's concept, who coined the term based on visible negative effects of social stratification within one country, as the novel EU reserve army of labor's socio-economic downsides are invisible to the core EU as for taking place in the distant periphery, where unemployment stagnates national productivity and economic competitiveness.

On the socio-political level, a reserve army of labor in the EU periphery creates racial and social divisions within the EU community. Within the entire EU, the downward pressure on wages cheapen workers' subsistence and perpetuate in the gold-standard like monetary Eurozone, in which internal devaluation adjustments are taken out at the expense of the labor market. With the 2008/09 World Financial Crisis and the Fiscal Pact legally obliging EU countries to bail each other out, this situation of a discouraged reserve army of labor in the EU periphery may cause additional real wage pressure onto the center whilst leaving the periphery shunned from free trade benefits of economic prosperity and societal welfare. Overall, the problem of downwards pressure onto wages due to the reserve army of labor in the EU periphery perpetuated in the aftermath of the 2008/09 World Financial Crisis, which had unevenly-heavy effects, as some countries like Iceland, Greece and Spain experienced severe financial problems, despite their EU membership (Duchac 2008). In some periphery EU countries, the sovereign debt increased in the 2008/09 recession, which steered rapidly enacted austerity policies to control growing debt (De Grauwe 2011, Semmler 2013). During this period of increasing financial stress and budget consolidation policy, the EU monetary union using the same currency, led to weaker countries being unable to devalue their

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own currency, which could have stimulated their economies by increasing exports and debt repayment burden easing (Semmler 2013). Nations having no national central bank that controls the monetary policies of sovereign nations or a sufficient deposit insurance that might calm people who fear a banking collapse, increased downward pressure on wages in economic recessions (Semmler 2013).

VI. Discussion

Overall, unequal exchange through trade are fundamental causes of societal inequalities (Frieden and Lake 2000). In the case of the EU, the fundamental proposition of Ricardo's theory of comparative advantage (1821/1996) and the Heckscher-Ohlin model assuming free trade to be mutually beneficial are questioned as for detected uneven EU trade benefits distribution. The current free trade imbalances within the EU lead to a persistent trade pattern of deficits for the periphery and trade surpluses for the more developed capital-intensive EU core countries. Periphery countries have labor-intensive products and higher unit labor costs because of low labor productivity. Free trade between the developed core and underdeveloped periphery countries thus triggers a value inflow into developed countries and outflow from underdeveloped countries. As wealth rises in developed countries at the expense of underdeveloped peripheral regions, effective demand is stimulated in developed countries and lowered in underdeveloped regions. While free goods trade ensures export advantages (e.g., in terms of market expansion and vent-for-surplus economies of scale) for the core EU and finance freedom leads to productive capital inflow into the core EU; labor immobility hinders employment market adaptation and profit rate equalization in the peripheral labor market.

In addition, individuals' perceptions of the future and the state of the economy may influence individuals' spending and investment choices – thus in some countries people end up in an economically unfavorable situation through a self-fulfilling prophecy or self-enforcing mechanism (Semmler 2013). Countries in the periphery may face a vicious cycle transmitted through financial markets, where financial stress and macroeconomic self-enforcing feedback mechanisms eliminate the positive impacts of automatic market stabilizers (Semmler 2013). Contractionary multipliers resulting from a reduction in fiscal spending, which recently gained attention of EU policymakers in the aftermath of the 2008/09 World Financial Crisis, may in particular imply negative effects in post-crisis economies (European Commission 2014). Regime-dependent multiplies weaken economically already left-behind regions even more (Mittnik and Semmler 2012). Exchange imbalances due to unequal power relations between EU countries thus undermine social democracy and erode the social glue (Held and McGrew 2007).

Negative outcomes of wage pressures and unemployment within the EU suggest systematic EU governance and national governmental interference to alleviate negative socio-economic impacts of market failures. Regarding economic development solutions, the common Eurozone and monetary union restrict socio-economic development through depreciation of national currencies – for example as practiced in Ireland in the 1990s (Boyer 2012, Semmler 2013). As alternative capital value repatriation through transfers of savings from developed to underdeveloped countries could overcome unequal exchange deficits and help close the gaps between core and peripheral EU countries (Emmanuel 1972, Gevorkyan 2013, Piketty 2014). Extending the theory of uneven development due to export of capital, direct investment promoting capital accumulation may alleviate negative externalities of economic trade imbalances. However, foreign direct investment transfers monetary value at the expense of potentially outcompeting domestic firms' initiative industries, development of the indigenous production and local trade (Shaikh 1979). Foreign investment can thus also imply the risk to tighten the grip of stronger over weaker EU countries through free trade and competition itself (Shaikh 1979).

As there are no 'automatic' market mechanisms that correct the downsides of trade imbalances, EU institutions and national governments are called upon to govern trade. Governmental actors have a fundamental role in establishing vital conditions for overall socially-beneficial market development. States and governance bodies can become involved in economic life, establishment and administration of the judicial, regulatory, and infrastructural framework in which private property, competition and contracts come to operate (Panitch and Gindin 2012). In the implementation of free market policies, European policy frameworks need governmental support, yet these efforts may sometimes be in conflict with national interests. As an example of a national versus collective union interest predicament, free access to Austrian higher education is currently regulated by a quota system to overcome brain drain of foreigners leaving Austria after having been educated and Austria missing a key-qualified labor force. A well-balanced policy mix should thus meet the needs of the union and states to concurrently set the tact on migration within the EU (Ho 2010, Moudud 2014). The preliminary results may also be extrapolated onto global labor markets in the age of digital information and algorithm-based labor force.

In the future, the autonomy of EU member states is believed to be more and more constrained by the forces of economic globalization. Realizing macroeconomic transition increasingly will involve EU governance beyond the state government control. The

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continuous interconnection of the European continent requires national governments to more and more engage in extensive multilateral collaboration and cooperation within the EU. This, however, creates trade-off predicaments between national policy, state autonomy and EU common goals. Inter-institutional cooperation and learning transfers between countries are recommended. Additional obstacles faced by the EU comprise the state capacity as only a selective group of nation states seem to be able to push policies through effectively within the EU compound, which may then dominate the socio-economic conditions of the others. While some progress has to be made on the national level with regards to the establishment of a legal framework, the European Commission could complement direct national level efforts and seek for a European-wide solution in a universal policy framework.

To overcome labor immobility, public EU and national policies could target at steering economic growth, migration, education and innovation. The European Central Bank should continue expansionary monetary policy that spurs capital investment featuring positive spillover effects. Active labor market policies should incentivize corporations to diversify the workforce. Flexible employment schemes – such as work sharing and Kurzarbeit short-time working – are recommended alternatives to reserve labor pools. Infrastructure investment will get young people into the workforce to overcome the youth unemployment obstacle.

A united migration policy will help harmonize the current diverse EU immigration practices. Unification of migration policies across the member states and a reformed quota system based on population and GDP could help ease labor immobility. Labor market integration also demands for a harmonization of the different concepts of citizenship laws. Labor could also be freed in dismantling bureaucracy by providing regulatory leeway and visa free travel for short-term workers. International accreditation of European degrees and certificates alongside offering language and cultural competency trainings will further steer labor market fluidity. Funds devoted to solidarity building could help local governments to devise strategies for responding to negative externalities of labor immobility. Economic aid could target at immigrant households to assign welfare packages without conditionality. Socio-economic improvement for employed immigrants, such as access to social benefits, and protection of workers without working permit should be advocated for.

In order to harmonize skills demanded and supplied, the detected skilled workforce challenge should be overcome by targeted education as a European responsibility. Unified EU-wide reforms to international education will help closing the gap between education and labor market. Building on the work of OECD's Programme for International Student Assessment (PISA), experts from all regions of the Union should sensitize to the cultural, political and economic contexts of each individual member state, working with local government authorities and schools to prepare education reform strategies and supervise their implementation.

International exposure should start as early as possible during education with a widening of the ERASMUS and SOCRATES program, which account for the most prominent EU benefit among young Europeans. National ministries should be in contact about common educational goals on the EU level and compare state-of-the-art teaching practices on an international basis. In the benchmarking of standards used, guidelines should be set up on how to meet common European educational goals and best practices. Higher education collaboration between European universities should be facilitated in order to improve higher education performance with a global outlook. The EU is advised to analyze educational outcomes and develop country-specific recommend-dations based on lessons learned from best-performing education systems around the world. Cost-benefit analyses and other in-depth studies on the effectiveness of existing EU education programs – such as Erasmus and Leonardo – should become a centralized strategy to defined international educational opportunities for schoolchildren, students and the workforce. Conducting studies of educational outcomes and measure returns on investment from existing and new programs in the EU will help implementing and post-implementation assessment of educational reforms conducted by EU member states. Teaching internationalization could be based on EU-wide initiatives to support universities in the design of a more flexible curriculum fostering diverse education that would give greater flexibility in adjusting to labor market needs. Whole-rounded educational initiatives can comprise exchange seminars, trainings, educational summer camps and gatherings to expand horizons and meet foreign peers by collaborating on additional knowledge and skills building in informal settings. Overall, acknowledging the importance of migration for economic development and international education will help scaling down psychological borders.

The EU labor force is not short of talented people but it is a challenge to change markets so talented workforce can be set free. In virtual career transfers and virtual labor mobility through technological involvement, modern jobs could dispatch physical labor requirements. Technology-driven labor market adjustment should feature IT solutions leading towards labor flexibility as for lowering the importance of the geographic area of the workplace. Innovation hubs of the digital economy could foster a trans-border e-skills transfers in the age of the digital economy. Under the EU Programme for Employment and Social Innovation, the EU could facilitate cooperation of a wide variety of

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EU universities to launch initiatives bringing innovation IT agencies and business incubators to professor sand students. Supporting framework conditions could help early stage IT advancement. The EU Erasmus Programs could foster exchange between technology hubs and enhance entrepreneurial skills in IT skill seminars and other forms of informal education across Europe. Cutting-edge research on technology transfer in academic cooperation will help strengthening employment and mobility.

VII. Conclusion

As a novel, pluralistic phenomenon, globalization holds undescribed emergent risks for society. Within the European community, the widespread effects of globalization and migration demand the strategic coordination of European governance and national government control in the context of a multi-layered governance-government system (Held and McGrew 2007). As free market itself will not change relative advantages based on competition and automatically develop nations equally, the EU and nation state need a harmonized political and institutional policy mix in the prism of global governance, EU economic market policies and national interests. Through well-tempered policy and legal frameworks, EU agencies in connection with respective state intervention can foster wealth, employment and social capital transfers through fair trade benefits distribution. National governments should work in accordance with EU institutional goals in securing global capitalism in order to breed an economically-fair and societally-harmonious United States of Euroworld.

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[i] 1973 Denmark, Ireland, United Kingdom; 1981 Greece; 1986 Portugal, Spain; 1989 former East German territories; 1993 Malta; 1995 Austria, Finland, Sweden; 2004 Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia; 2007 Romania, Bulgaria; 2013 Croatia.

[ii] Albania, Bosnia and Herzegovina, Iceland, Kosovo, Macedonia, Montenegro, Serbia and Turkey are candidates for membership. The European Free Trade Association also comprises Iceland, Liechtenstein, Norway and Switzerland through bilateral treaties.

[iii] The Eurozone is a monetary union of 19 EU member states that have adopted the Euro as their common currency and sole legal tender. The Eurozone consists of Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain. Other EU states (except for Denmark and the United Kingdom) are obliged to join once they meet certain financial criteria. Andorra, Monaco, San Marino and the Vatican also use the euro as an area of cooperation.

[iv] Bulgarian, Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hungarian, Irish, Italian, Latvian, Lithuanian, Maltese, Polish, Portuguese, Romanian, Slovak, Slovenian, Spanish and Swedish.

[v] Source: http://ec.europa.eu/eurostat/statistics-explained/index.php/Migration_and_migrant_population_statistics accessed 12/10/2014. Note, the national immigration statistics do not provide a qualitative interpretation of the return. Apart from discouraged workers returning to their homeland, there may other reasons and the data leaves open where they return from as it may also represent return from non-EU 3rd party countries.

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MARSB accrediting is an honor. It authenticates your research activities. After becoming MARSB, you can add 'MARSB' title with your name as you use this recognition as additional suffix to your status. This will definitely enhance and add more value and repute to your name. You may use it on your professional Counseling Materials such as CV, Resume, Visiting Card and Name Plate etc.

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AUXILIARY MEMBERSHIPS

Institutional Fellow of Open Association of Research Society (USA)-OARS (USA)

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After nomination of your institution as "Institutional Fellow" and constantly functioning successfully for one year, we can consider giving recognition to your institute to function as Regional/Zonal office on our behalf.
The board can also take up the additional allied activities for betterment after our consultation.

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- Fellow can also join as paid peer reviewer and earn 15% remuneration of author charges and can also get an opportunity to join as member of the Editorial Board of Global Journals Incorporation (USA)
- • This individual has learned the basic methods of applying those concepts and techniques to common challenging situations. This individual has further demonstrated an in–depth understanding of the application of suitable techniques to a particular area of research practice.

Note :

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- In future, if the board feels the necessity to change any board member, the same can be done with the consent of the chairperson along with anyone board member without our approval.
- In case, the chairperson needs to be replaced then consent of 2/3rd board members are required and they are also required to jointly pass the resolution copy of which should be sent to us. In such case, it will be compulsory to obtain our approval before replacement.
- In case of "Difference of Opinion [if any]" among the Board members, our decision will be final and binding to everyone.

"

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The paper should be in proper format. The format can be downloaded from first page of 'Author Guideline' Menu. The Author is expected to follow the general rules as mentioned in this menu. The paper should be written in MS-Word Format (*.DOC,*.DOCX).

The Author can submit the paper either online or offline. The authors should prefer online submission.Online Submission: There are three ways to submit your paper:

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- Author Name in Font Size of 11 with one column as of Title.
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- Numbering of Second Main Headings (Heading 2) must be in Alphabets, Italic, and Font Size of 10.

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1. General,

2. Ethical Guidelines,

3. Submission of Manuscripts,

4. Manuscript's Category,

5. Structure and Format of Manuscript,

6. After Acceptance.

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All authors should have been credited according to their appropriate contribution in research activity and preparing paper. Contributors who do not match the criteria as authors may be mentioned under Acknowledgement.

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Complete support for both authors and co-author is provided.

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Based on potential and nature, the manuscript can be categorized under the following heads:

Original research paper: Such papers are reports of high-level significant original research work.

Review papers: These are concise, significant but helpful and decisive topics for young researchers.

Research articles: These are handled with small investigation and applications

Research letters: The letters are small and concise comments on previously published matters.

5.STRUCTURE AND FORMAT OF MANUSCRIPT

The recommended size of original research paper is less than seven thousand words, review papers fewer than seven thousands words also.Preparation of research paper or how to write research paper, are major hurdle, while writing manuscript. The research articles and research letters should be fewer than three thousand words, the structure original research paper; sometime review paper should be as follows:

Papers: These are reports of significant research (typically less than 7000 words equivalent, including tables, figures, references), and comprise:

(a)Title should be relevant and commensurate with the theme of the paper.

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(d) An Introduction, giving necessary background excluding subheadings; objectives must be clearly declared.

(e) Resources and techniques with sufficient complete experimental details (wherever possible by reference) to permit repetition; sources of information must be given and numerical methods must be specified by reference, unless non-standard.

(f) Results should be presented concisely, by well-designed tables and/or figures; the same data may not be used in both; suitable statistical data should be given. All data must be obtained with attention to numerical detail in the planning stage. As reproduced design has been recognized to be important to experiments for a considerable time, the Editor has decided that any paper that appears not to have adequate numerical treatments of the data will be returned un-refereed;

(g) Discussion should cover the implications and consequences, not just recapitulating the results; conclusions should be summarizing.

(h) Brief Acknowledgements.

(i) References in the proper form.

Authors should very cautiously consider the preparation of papers to ensure that they communicate efficiently. Papers are much more likely to be accepted, if they are cautiously designed and laid out, contain few or no errors, are summarizing, and be conventional to the approach and instructions. They will in addition, be published with much less delays than those that require much technical and editorial correction.

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It is vital, that authors take care in submitting a manuscript that is written in simple language and adheres to published guidelines.

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Abbreviations supposed to be used carefully. The abbreviated name or expression is supposed to be cited in full at first usage, followed by the conventional abbreviation in parentheses.

Metric SI units are supposed to generally be used excluding where they conflict with current practice or are confusing. For illustration, 1.4 l rather than 1.4 × 10-3 m3, or 4 mm somewhat than 4 × 10-3 m. Chemical formula and solutions must identify the form used, e.g. anhydrous or hydrated, and the concentration must be in clearly defined units. Common species names should be followed by underlines at the first mention. For following use the generic name should be constricted to a single letter, if it is clear.

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Many researchers searching for information online will use search engines such as Google, Yahoo or similar. By optimizing your paper for search engines, you will amplify the chance of someone finding it. This in turn will make it more likely to be viewed and/or cited in a further work. Global Journals Inc. (US) have compiled these guidelines to facilitate you to maximize the web-friendliness of the most public part of your paper.

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A major linchpin in research work for the writing research paper is the keyword search, which one will employ to find both library and Internet resources.

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Search engines for most searches, use Boolean searching, which is somewhat different from Internet searches. The Boolean search uses "operators," words (and, or, not, and near) that enable you to expand or narrow your affords. Tips for research paper while preparing research paper are very helpful guideline of research paper.

Choice of key words is first tool of tips to write research paper. Research paper writing is an art.A few tips for deciding as strategically as possible about keyword search:

- One should start brainstorming lists of possible keywords before even begin searching. Think about the most important concepts related to research work. Ask, "What words would a source have to include to be truly valuable in research paper?" Then consider synonyms for the important words.
- It may take the discovery of only one relevant paper to let steer in the right keyword direction because in most databases, the keywords under which a research paper is abstracted are listed with the paper.
- One should avoid outdated words.

Keywords are the key that opens a door to research work sources. Keyword searching is an art in which researcher's skills are bound to improve with experience and time.

Numerical Methods: Numerical methods used should be clear and, where appropriate, supported by references.

Acknowledgements: Please make these as concise as possible.

References

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References to information on the World Wide Web can be given, but only if the information is available without charge to readers on an official site. Wikipedia and Similar websites are not allowed where anyone can change the information. Authors will be asked to make available electronic copies of the cited information for inclusion on the Global Journals Inc. (US) homepage at the judgment of the Editorial Board.

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TECHNIQUES FOR WRITING A GOOD QUALITY RESEARCH PAPER:

1. Choosing the topic: In most cases, the topic is searched by the interest of author but it can be also suggested by the guides. You can have several topics and then you can judge that in which topic or subject you are finding yourself most comfortable. This can be done by asking several questions to yourself, like Will I be able to carry our search in this area? Will I find all necessary recourses to accomplish the search? Will I be able to find all information in this field area? If the answer of these types of questions will be "Yes" then you can choose that topic. In most of the cases, you may have to conduct the surveys and have to visit several places because this field is related to Computer Science and Information Technology. Also, you may have to do a lot of work to find all rise and falls regarding the various data of that subject. Sometimes, detailed information plays a vital role, instead of short information.

2. Evaluators are human: First thing to remember that evaluators are also human being. They are not only meant for rejecting a paper. They are here to evaluate your paper. So, present your Best.

3. Think Like Evaluators: If you are in a confusion or getting demotivated that your paper will be accepted by evaluators or not, then think and try to evaluate your paper like an Evaluator. Try to understand that what an evaluator wants in your research paper and automatically you will have your answer.

4. Make blueprints of paper: The outline is the plan or framework that will help you to arrange your thoughts. It will make your paper logical. But remember that all points of your outline must be related to the topic you have chosen.

5. Ask your Guides: If you are having any difficulty in your research, then do not hesitate to share your difficulty to your guide (if you have any). They will surely help you out and resolve your doubts. If you can't clarify what exactly you require for your work then ask the supervisor to help you with the alternative. He might also provide you the list of essential readings.

6. Use of computer is recommended: As you are doing research in the field of Computer Science, then this point is quite obvious.

7. Use right software: Always use good quality software packages. If you are not capable to judge good software then you can lose quality of your paper unknowingly. There are various software programs available to help you, which you can get through Internet.

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9. Use and get big pictures: Always use encyclopedias, Wikipedia to get pictures so that you can go into the depth.

10. Bookmarks are useful: When you read any book or magazine, you generally use bookmarks, right! It is a good habit, which helps to not to lose your continuity. You should always use bookmarks while searching on Internet also, which will make your search easier.

11. Revise what you wrote: When you write anything, always read it, summarize it and then finalize it.

12. Make all efforts: Make all efforts to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in introduction, that what is the need of a particular research paper. Polish your work by good skill of writing and always give an evaluator, what he wants.

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15. Use of direct quotes: When you do research relevant to literature, history or current affairs then use of quotes become essential but if study is relevant to science then use of quotes is not preferable.

16. Use proper verb tense: Use proper verb tenses in your paper. Use past tense, to present those events that happened. Use present tense to indicate events that are going on. Use future tense to indicate future happening events. Use of improper and wrong tenses will confuse the evaluator. Avoid the sentences that are incomplete.

17. Never use online paper: If you are getting any paper on Internet, then never use it as your research paper because it might be possible that evaluator has already seen it or maybe it is outdated version.

18. Pick a good study spot: To do your research studies always try to pick a spot, which is quiet. Every spot is not for studies. Spot that suits you choose it and proceed further.

19. Know what you know: Always try to know, what you know by making objectives. Else, you will be confused and cannot achieve your target.

20. Use good quality grammar: Always use a good quality grammar and use words that will throw positive impact on evaluator. Use of good quality grammar does not mean to use tough words, that for each word the evaluator has to go through dictionary. Do not start sentence with a conjunction. Do not fragment sentences. Eliminate one-word sentences. Ignore passive voice. Do not ever use a big word when a diminutive one would suffice. Verbs have to be in agreement with their subjects. Prepositions are not expressions to finish sentences with. It is incorrect to ever divide an infinitive. Avoid clichés like the disease. Also, always shun irritating alliteration. Use language that is simple and straight forward. put together a neat summary.

21. Arrangement of information: Each section of the main body should start with an opening sentence and there should be a changeover at the end of the section. Give only valid and powerful arguments to your topic. You may also maintain your arguments with records.

22. Never start in last minute: Always start at right time and give enough time to research work. Leaving everything to the last minute will degrade your paper and spoil your work.

23. Multitasking in research is not good: Doing several things at the same time proves bad habit in case of research activity. Research is an area, where everything has a particular time slot. Divide your research work in parts and do particular part in particular time slot.

24. Never copy others' work: Never copy others' work and give it your name because if evaluator has seen it anywhere you will be in trouble.

25. Take proper rest and food: No matter how many hours you spend for your research activity, if you are not taking care of your health then all your efforts will be in vain. For a quality research, study is must, and this can be done by taking proper rest and food.

26. Go for seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.



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27. Refresh your mind after intervals: Try to give rest to your mind by listening to soft music or by sleeping in intervals. This will also improve your memory.

28. Make colleagues: Always try to make colleagues. No matter how sharper or intelligent you are, if you make colleagues you can have several ideas, which will be helpful for your research.

29. Think technically: Always think technically. If anything happens, then search its reasons, its benefits, and demerits.

30. Think and then print: When you will go to print your paper, notice that tables are not be split, headings are not detached from their descriptions, and page sequence is maintained.

31. Adding unnecessary information: Do not add unnecessary information, like, I have used MS Excel to draw graph. Do not add irrelevant and inappropriate material. These all will create superfluous. Foreign terminology and phrases are not apropos. One should NEVER take a broad view. Analogy in script is like feathers on a snake. Not at all use a large word when a very small one would be sufficient. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Amplification is a billion times of inferior quality than sarcasm.

32. Never oversimplify everything: To add material in your research paper, never go for oversimplification. This will definitely irritate the evaluator. Be more or less specific. Also too, by no means, ever use rhythmic redundancies. Contractions aren't essential and shouldn't be there used. Comparisons are as terrible as clichés. Give up ampersands and abbreviations, and so on. Remove commas, that are, not necessary. Parenthetical words however should be together with this in commas. Understatement is all the time the complete best way to put onward earth-shaking thoughts. Give a detailed literary review.

33. Report concluded results: Use concluded results. From raw data, filter the results and then conclude your studies based on measurements and observations taken. Significant figures and appropriate number of decimal places should be used. Parenthetical remarks are prohibitive. Proofread carefully at final stage. In the end give outline to your arguments. Spot out perspectives of further study of this subject. Justify your conclusion by at the bottom of them with sufficient justifications and examples.

34. After conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium though which your research is going to be in print to the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects in your research.

Informal Guidelines of Research Paper Writing

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form, which is presented in the guidelines using the template.
- Please note the criterion for grading the final paper by peer-reviewers.

Final Points:

A purpose of organizing a research paper is to let people to interpret your effort selectively. The journal requires the following sections, submitted in the order listed, each section to start on a new page.

The introduction will be compiled from reference matter and will reflect the design processes or outline of basis that direct you to make study. As you will carry out the process of study, the method and process section will be constructed as like that. The result segment will show related statistics in nearly sequential order and will direct the reviewers next to the similar intellectual paths throughout the data that you took to carry out your study. The discussion section will provide understanding of the data and projections as to the implication of the results. The use of good quality references all through the paper will give the effort trustworthiness by representing an alertness of prior workings.

Writing a research paper is not an easy job no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record keeping are the only means to make straightforward the progression.

General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear

· Adhere to recommended page limits

Mistakes to evade

- Insertion a title at the foot of a page with the subsequent text on the next page
- Separating a table/chart or figure - impound each figure/table to a single page
- Submitting a manuscript with pages out of sequence

In every sections of your document

· Use standard writing style including articles ("a", "the," etc.)

· Keep on paying attention on the research topic of the paper

· Use paragraphs to split each significant point (excluding for the abstract)

· Align the primary line of each section

· Present your points in sound order

· Use present tense to report well accepted

· Use past tense to describe specific results

· Shun familiar wording, don't address the reviewer directly, and don't use slang, slang language, or superlatives

· Shun use of extra pictures - include only those figures essential to presenting results

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Choose a revealing title. It should be short. It should not have non-standard acronyms or abbreviations. It should not exceed two printed lines. It should include the name(s) and address (es) of all authors.



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Abstract:

The summary should be two hundred words or less. It should briefly and clearly explain the key findings reported in the manuscript--must have precise statistics. It should not have abnormal acronyms or abbreviations. It should be logical in itself. Shun citing references at this point.

An abstract is a brief distinct paragraph summary of finished work or work in development. In a minute or less a reviewer can be taught the foundation behind the study, common approach to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Yet, use comprehensive sentences and do not let go readability for briefness. You can maintain it succinct by phrasing sentences so that they provide more than lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study, with the subsequent elements in any summary. Try to maintain the initial two items to no more than one ruling each.

- Reason of the study - theory, overall issue, purpose
- Fundamental goal
- To the point depiction of the research
- Consequences, including definite statistics - if the consequences are quantitative in nature, account quantitative data; results of any numerical analysis should be reported
- Significant conclusions or questions that track from the research(es)

Approach:

- Single section, and succinct
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- A conceptual should situate on its own, and not submit to any other part of the paper such as a form or table
- Center on shortening results - bound background information to a verdict or two, if completely necessary
- What you account in an conceptual must be regular with what you reported in the manuscript
- Exact spelling, clearness of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else

Introduction:

The **Introduction** should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable to comprehend and calculate the purpose of your study without having to submit to other works. The basis for the study should be offered. Give most important references but shun difficult to make a comprehensive appraisal of the topic. In the introduction, describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will have no attention in your result. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here. Following approach can create a valuable beginning:

- Explain the value (significance) of the study
- Shield the model - why did you employ this particular system or method? What is its compensation? You strength remark on its appropriateness from a abstract point of vision as well as point out sensible reasons for using it.
- Present a justification. Status your particular theory (es) or aim(s), and describe the logic that led you to choose them.
- Very for a short time explain the tentative propose and how it skilled the declared objectives.

Approach:

- Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done.
- Sort out your thoughts; manufacture one key point with every section. If you make the four points listed above, you will need a least of four paragraphs.

- Present surroundings information only as desirable in order hold up a situation. The reviewer does not desire to read the whole thing you know about a topic.
- Shape the theory/purpose specifically - do not take a broad view.
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This part is supposed to be the easiest to carve if you have good skills. A sound written Procedures segment allows a capable scientist to replacement your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt for the least amount of information that would permit another capable scientist to spare your outcome but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section. When a technique is used that has been well described in another object, mention the specific item describing a way but draw the basic principle while stating the situation. The purpose is to text all particular resources and broad procedures, so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step by step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

- Explain materials individually only if the study is so complex that it saves liberty this way.
- Embrace particular materials, and any tools or provisions that are not frequently found in laboratories.
- Do not take in frequently found.
- If use of a definite type of tools.
- Materials may be reported in a part section or else they may be recognized along with your measures.

Methods:

- Report the method (not particulars of each process that engaged the same methodology)
- Describe the method entirely
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures
- Simplify - details how procedures were completed not how they were exclusively performed on a particular day.
- If well known procedures were used, account the procedure by name, possibly with reference, and that's all.

Approach:

- It is embarrassed or not possible to use vigorous voice when documenting methods with no using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result when script up the methods most authors use third person passive voice.
- Use standard style in this and in every other part of the paper - avoid familiar lists, and use full sentences.

What to keep away from

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings - save it for the argument.
- Leave out information that is immaterial to a third party.

Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part a entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Carry on to be to the point, by means of statistics and tables, if suitable, to present consequences most efficiently.You must obviously differentiate material that would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matter should not be submitted at all except requested by the instructor.



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Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
- In manuscript, explain each of your consequences, point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation an exacting study.
- Explain results of control experiments and comprise remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or in manuscript form.

What to stay away from

- Do not discuss or infer your outcome, report surroundings information, or try to explain anything.
- Not at all, take in raw data or intermediate calculations in a research manuscript.
- Do not present the similar data more than once.
- Manuscript should complement any figures or tables, not duplicate the identical information.
- Never confuse figures with tables - there is a difference.

Approach

- As forever, use past tense when you submit to your results, and put the whole thing in a reasonable order.
- Put figures and tables, appropriately numbered, in order at the end of the report
- If you desire, you may place your figures and tables properly within the text of your results part.

Figures and tables

- If you put figures and tables at the end of the details, make certain that they are visibly distinguished from any attach appendix materials, such as raw facts
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- In spite of position, each table must be titled, numbered one after the other and complete with heading
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Discussion:

The Discussion is expected the trickiest segment to write and describe. A lot of papers submitted for journal are discarded based on problems with the Discussion. There is no head of state for how long a argument should be. Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implication of the study. The purpose here is to offer an understanding of your results and hold up for all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of result should be visibly described. Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved with prospect, and let it drop at that.

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- Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work
- You may propose future guidelines, such as how the experiment might be personalized to accomplish a new idea.
- Give details all of your remarks as much as possible, focus on mechanisms.
- Make a decision if the tentative design sufficiently addressed the theory, and whether or not it was correctly restricted.
- Try to present substitute explanations if sensible alternatives be present.
- One research will not counter an overall question, so maintain the large picture in mind, where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

- When you refer to information, differentiate data generated by your own studies from available information
- Submit to work done by specific persons (including you) in past tense.
- Submit to generally acknowledged facts and main beliefs in present tense.

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Topics	Grades		
	A-B	**C-D**	**E-F**
Abstract	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form Above 200 words	No specific data with ambiguous information Above 250 words
Introduction	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
Methods and Procedures	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
Result	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
Discussion	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

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