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The Impact of Foreign Trade on the Economic Growth of Ghana

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Abstract : *The theoretical and empirical relationship between foreign trade and economic growth has extensively been discussed in economics in recent years. There has been a long held belief about the positive correlation between these two variables. In spite of this countless study, the link has been proven to be empirically weak. In view of this, the aim of this dissertation is to empirically examine the relationship between trade and growth. Using trade openness and ordinary least sequence was employed to estimate the impact of foreign trade on Gross domestic product.*
The broad objective is analysis the casual relation between or the effects of foreign trade in Ghana based on available data on variables which are deemed to be the indicators of economic growth and foreign trade. The analysis is based on data from relevant government institutions. The results points to the fact that, all the variables were statistically significant. There will be the need for policy makers to adopt pragmatic efforts as the study recommends enhancing trade liberalization.
Keywords: *Foreign Trade, Economic growth, Ghana.*

I. Introduction

International trade is the exchange of goods and services between countries. This type of trade gives rise to a world economy, in which prices, or supply and demand is affected by global events. In most countries, such trade represents a significant share of gross domestic product (GDP). Trading globally gives consumers and countries the opportunity to be exposed to goods and services not available in their own countries. Almost every kind of product can be found on the international market: food, clothes, spare parts, oil, jewelry, wine, stocks, currencies and water. Services are also traded: tourism, banking, consulting and transportation.

Ghana is a middle-income West African country which experienced impressive economic growth from 2005 to 2012. This growth has slowed significantly since 2013 in light of macro-economic challenges, such as high budget deficit and inflation, but is still expected to remain positive due to the country's stabl
e democratic institutions and rich natural resources. Given a large informal sector, unemployment continues to be a challenge particularly among young segment in the society of Ghana. In spite of the excitement surrounding the discovery of oil and against the hopes of Ghanaians expecting an immediate bounty, the impact of large scale commercial production on the broader economy has been modest. The results were visible in 2011 current account and trade balance, the most tangible benefits has not been felt.

Ghana maintains a stronger links with the European single market for which the EU has 35 percent of the Ghanaian market. Asia and South Africa are among the other competitors for the Ghanaian market. Imports from China and India over the years have increase. Most sectors of the economy have been positively affected by these investments from Asia. Ghana's domestic food processing capacity is reducing to about 20 percent in 2011 down from 30 percent in 2010 (Ghana export report 2012). This was due to cost of production as a result of unstable electricity tariffs, materials, poor infrastructure etc. The Export promotion authority and the 'Ghana Export Trade Information Centre was established in 2015 for providing trade information and services to the business community, with an aim of the provision of technical advice as well human development. National export strategy and Export Development program was establish to provide guidelines for the implementation of Ghana's domestic and international trade agenda. In 2008 Ghana was the second to sign its signature to the economic bilateral agreement with the EU which eroded all tariffs on most of Ghana's export to the single market and 80 percent of imports from the EU (Ghana export guide, 2012).

Exports are believed to improve economic growth with enough evidence from the export hypothesis to support this as a development strategy. Countries like Hong Kong, Singapore, South Korea and Taiwan has proven beyond doubt about the triumph of economic growth through exports. The basic theory is that there is a strong correlation between growth and Gross national income. Foreign trade theorist over the years has pointed out the ingredient causing this link.

Foreign trade is an integral part of the economic and development of Ghana with the focus on promotion of agricultural. The objectives and guidelines which were specified in 2004 policy agenda which has been since review and adapted to the country long term strategic plan. Increase regional co-operation has had a positive impact on Ghanaian external trade while trade continues to rely on the Europeanmarkets; trade with the ECOWAS sub-region has been rising; accounting for a substantial share of non-traditional exports. For instance in 2012, out of the non- traditional export of USD 2.36 billion, export to ECOWAS and to other African countries accounted for 31.7% and 3.9 % respectively. Most exports were destined for Togo, Burkina Faso, Nigeria and Côte D'Ivoire. Also the structure of external trade has substantially changed following Ghana's joining the league of oil-producing countries in 2011. The share of oil at 22%, of total exports overtook cocoa at 20.9%. However, gold exports continue to have the largest share at around 40%.

After the 2012 election, Ghana's economy was in shambles with continues energy crises coupled with high inflation rates, rising public debts and other financial challenges. 2015 recorded a growth rate of 3.5% as compared to the previous years of 14.9% in 2011 and 8.8% percent in 2012. Likely courses of the large current and fiscal deficit is attributed to massive public sector wage bill, energy subsidies, low domestic tax revenues and low commodity prices. As start December 2014 total Ghana total public debt stood at GH¢76.1 billion (67.1% of GDP), up from 55.3% of GDP in 2013. This is comprised of GH¢34.6 billion (30.5% of GDP) domestic debt and US$13 billion (36.6% of GDP) of foreign debt. The rapid deceleration in economic activity to 4.2% of GDP in 2014 is primarily due to persistent energy supply constraints and rising energy-related input costs to production.

The energy crisis currently experiencing in Ghana due to wide gap between demand and supply has increase the cost of doing business in the country especially small and medium enterprises and for industries such as mining, telecoms and manufacturing. In 2012, capital inflows which include portfolio and cross-border flows increased marginally surpassing US$17BN in key sub-Saharan African frontier markets and contributed 2.7% of GDP. Foreign direct investment inflows has decline since 2012 in Ghana where available statistics indicate that between 2012 and 2013, FDI fell by 19.5% to $3.95bn. At the beginning of 2013 foreign direct investment was influenced largely to by low bond yields, weak economic growth and excess liquidity in developed countries such as the UK and US. Pull factors also contributing to this surge included robust macroeconomic management, low debt levels and improved structural reforms by countries such as Nigeria and Ghana.

International trade, a key determinate of growth over the years has made a positive contribution to economic growth (Sun and Heshmati, 2010). Developing economists have also been drawn to the causal relationship between the correlation between trade and economic growth (Aradhyula et al2007). Further research was empirically put forward to investigate the link between trade and economic growth which has widened the debate between these two variables (Chen, 2009). This dispute was further highlighted in other studies which pointed out the effects of trade on economic growth is difficult to establish since the direction causality(Ghartey, 1993; Shan and Sun, 1998). Theoretically, the correlation or chemistry between trade and economic growth have been investigated in most economic literature (Chatterji, Mohan & Dastidar, 2013; Steiner, Wörz, & Slacík, 2014), empirically, has failed to establish a strong or positive relationship. There are enough reasons to suggest that the impact of foreign trade has not yet been proven therefore this research seeks to investigate the impact on foreign trade on the economic growththeoretically and empirically, with emphasis on Ghana.

II. Theoretical and Empirical review

The quest to boost economic growth has been the aim of every country especially developing countries including the republic of Ghana. There have been numerous empirical studies in regards to the link between international trade and economic growth with different results and conclusion. Classical economists thus; Thomas Malthus, David Ricardo and Adam smith have shared their views and through the publication and empirical papers. An inquiry into the nature and causes of wealth by Adam smith argued that trade will be beneficial to nations who has no absolute advantage in productive possibilities. David Ricardo in his comparative theory further stated that trade could be of great importance to countries to countries with comparative advantage in terms of cost and was also opposed to trade tariffs and other restrictions.

There has been number of empirical studies to establish the relation between trade and growth. Trade plays a key role in an economy through trade liberalization which is aim at pursuing a national agenda in addition to the gains from trade (Jackson, 2006). The effect of international trade on the income level of a sample of population was determined by the elasticity of 0.2 which was deemed very significant in an empirical study (OECD, 2013). Singh (2011) reaffirm the strong positive correlation between trade and the economic growth with his analysis focusing on export and investment in Australia on the basis of long- run effect. There was further investigation on the link between exports and the growth of the economy with the searchlight on the polish economy. It was emphasis that the combination of export and import had an effect on the GDP (Gurgul & Lach 2010).

Sun and Heshmati (2010) also stressed that; china's long journey to success in terms of economic power house was fed by the participating in world trade and constant change trade policy. National economic growth is rewarded due to activities in the global market making the world segments has its target. The African Development Report (2012) see trade as a catalyst for globalization where by gains are distributed among nations. Romer, Lucas and Svensson as cited in Chen (2013) argued international trade propel economic growth through technological advancement for nations and a means by which government can use to achieve development, Grossman and Helpman (1990) also associated trade with technological improvement as well as knowledge buildup. The theory notes that the enhancement of a nation's human capital will lead to economic growth by means of the development of new forms of technology and efficient and effective means of production.

Rodriguez and Rodrik (1999) intertwine trade with investment and growth. Taylor (1993) presented the two-way gap model by Harrod-Domar model in which shortage of foreign exchange can reduce economic growth by constraining both imports and savings. Frankel and Romer (1999) found that economic growth is heavily dependent on international trade, because of the fact that productivity per worker increase by between 2% and 3% which in ratio terms the gross domestic product (GDP) was affected by trade. Renelt and Levine (1992) and Levine and Zervos (1993) also found a link between international trade and growth with a strong contribution to GDP by South American countries like Brazil, Argentina, Bolivia, Ecuador etc. Ndulu and Njuguna (1998) estimated a growth model with both variable and independent been trade and growth respectively. Their results showed that the chemistry between trade and economic growth is strong. Imports and exports are macroeconomic indicators which have adverse effect on economic growth. It was also establish that investment affects economic growth directly, trade policies has an effect on investment. Asam, Fosu and Ndung'u (2002) finally suggested that quality but not quantity has healthy relationship with economic growth. Exports are very important sources of generating funds and key driver to stimulate economic growth. Ajmia, Ayeb, Balcilarc and Guptad (2013) using linear and non-linear to test the relation between exports and economic growth in South Africa found that a stationary liner combination between export and economic growth and there is a cause and effect of GDP to export. Exports can improve GDP and thereby returning people to work which will further increase income level in the export sector and technological enhancement. Lee and Huang (2002) pointed out export as a determinate of economic growth.

Trade openness is a measure of economic policies that either restrict or invite trade between countries. For example, if a country sets a policy of high trade tariffs, thus restricting the desirability of international trade, this restrictive policy will inhibit other countries from sending exports and accepting imports from that country. Lack of trade openness, will have an economic effect of slowing economic development/growth. Conversely, according to economic theory, trade openness will have an economic effect of increasing economic development and growth. Yanikkaya (2002) found that countries which participate in international trade as a result of policies geared towards export and import ratio to GDP turn to benefit increase in economic growth. Gries and Redlin (2012) also found a correlation between economic policies and economic growth through the basic measure of openness.

Awokuse (2008) revisited the issue of export as a percentage share of GDP in regards to policies which is geared towards attracting trade using a time series and grander causality test and impulse response function with emphasis on some selected south American countries. The results confirm an export lead growth in these countries which includes Peru, Argentina. Rao and Rao (2009) using Fiji as his reference point, found that trade openness has a positive effect on the growth of the country economy as well as it productivity level. Daumal and Ozyurt (2010) in their research taken into account 26 states in Brazil further pointed out the relationship between openness to trade and economic growth. Human capital and industrial sector are key for developing countries. With the help of export led growth hypothesis coupled with OLS or correlation test establish the association not just causality between growth and trade.
Capital accumulation involves acquiring more assets that can be used to create more wealth or that will appreciate in value. Endogenous growth models hold that capital accumulation can increase the long run trend rate of economic growth. However, to permit capital accumulation it is necessary to increase the savings ratios. Labor will be more efficient with production if there is an increase in capital stock which will in turn stimulate economic growth. Anwer and Sampath (1999) concluded that investment as a positive impact on growth with the help cointegration analysis in the study which involved 90 countries from 1962-1992. In order for an economy to growth government participating is very vital Chude and Chude (2013) found that the use of government income and expenditure has an important role to play in stimulating economic growth. However increase in spending through borrowing couple with a budget deficit is a recipefor decline in economic growth (Checherita and Rother, 2010).

A sound macroeconomic environment with a manageable inflation plays a key role in economic growth through international trade. Inflation defined as a sustained increase in the general level of prices for goods and services. It is measured as an annual percentage increase. Gokal and Hanif (2004) point out the effects of inflation on the economic growth thus; it has adverse effect on the economy, cripple most sectors, throws the economy in doubts and erode investments. In addition, its puts pressure on the local currency, exports becomes expensive whiles imports becomes cheaper resulting in balance of payment problems. Corden (1985) further pointed out the correlation between foreign trade and key macroeconomic variables like exchange rates, inflation, and interest rate which he see has a fundamental to economic growth. According to Chen (2009), he argued that the dependent variable is dependent on the independent variable.

III. Research methodology

3.1 Variables Definitions

The Gross domestic product according to this research is the dependent variable which is dependent on the independent variable which includes openings to trade (current account balance), external debt per capital, foreign direct investment, and export per capita. Other independent variable includes; gross capita formation, inflation, remittances per capita.

3.2Analytical Tools

Ordinary least square (OLS) is the main statistical tool which is employed for this research. This is because its attempts to reduce the standard of deviation or squares of errors which might be associated with the expected observations.

Model Specification:

GDP = F (REMCAPITA, EXTDCAPITA, FDI, INFL, EXP).

LOGGDP = Ao +A1 LOGREMCAPITA+ A2 LOG EXTDCAPITA +A3 LOGFDI + A4 LOGINFL + A5 LOGEXP +A6LOGEXP μ.

3.3 Presentation and Discussions of Results.

3.3.1 The Effects of Foreign Trade on Economic Growth of Ghana

The primary aim of this research was to empirically investigate the relationship between foreign trade and economic growth of the republic of Ghana using other independent variables as a measure of indicators. The ordinary least sequence technique was employed as a means of estimation. In view of this, the regression results are presented on the table below:

Table 1: Results of the Ordinary least square Analysis

Variable	Co- efficient	Std Error	T static	Prob.
FDI	**2.676054**	**1.343550**	**1.991778**	**0.0574**
EXPT	**2.085751**	**0.365994**	**5.698862**	**0.0000**
INFLA	**-1.07E+10**	**1.57E+10**	**-0.683574**	**0.5005**
REM	**10.81358**	**7.961428**	**1.358246**	**0.1865**
EXTD	**0.396747**	**0.090827**	**4.368142**	**0.0002**
CAB	**-2.02E+09**	**1.18E+0.9**	**-1.708230**	**0.1000**

R- Square	**0.974753**	
Adjusted R- square		**0.967684**
SD dependent var.		**5.67E + 11**
S.E regression	**8.03E+ 24**	
Some of squared resid		**-935.3320**
Log likelihood		**137.8886**
F- Statistic	**156.7867**	
Pro- (F statistic)0.000000		

The results show that the variables point to a positive relationship between gross domestic products (GDP) hence, an increase in the economic growth of the republic of Ghana.

It must be pointed out that, inflation and openness to trade has no bearing on its effects on economic growth.

3.3.2 The impact of foreign investment on economic growth.

The co-efficient of FDI is positive that is 2.676054 this implies that there is a positive effect on economic growth of Ghana as it can be concluded that one unit increase in this variable can on average increase GDP by

2.676054. To see how this statistics is significant, we use the t-calculated statistics of 1.99778. In this case, it is greater than the table value of 1.708, and a probability of 0.0574 which is not less than 0.05, is a bad indication of insignificance. Although the coefficient is positive, the parameter is statistically insignificant hence we do not reject the null hypothesis. Therefore, foreigndirect investment is not statistically significant in influencing economic growth of Ghana, but however has a positive influence on Ghana‟ economic growth, implying that for any policy designed to determine the GDP of Ghana, we must not take into consideration foreign direct investment.

3.3.3 The impact of export on the economic growth of Ghana.

The coefficient of export (2.085751) is positive, implying that an increase in export will lead to an increase in economic growth mostly in developing countries. The result shows that a 1% increase in export will lead to a 20.8% increase in economic growth. This is in conformity with our a priori theoretical expectation which states that exports increase economic growth. Its significance can be confirmed by the t-value. The t- value calculated is 5.698862 is greater than the table value 1.708; further confirmed by the probability of 0.0000 and very low standard error of 0.365994. Hence, we do reject the null hypothesis and accept the alternative, implying that the parameter is significant with a low standard deviation of 0.365994. And for any policy designed to determine the GDP of Ghana we must take into consideration export.

3.3.4The impact of remittance on economic growth.

The coefficient of remittance money per capita (REM) is positive (10.81358) implying that an increase in remitted money will lead to increase in GDP. The result shows that a 1% increase in remitted money per capita will lead to 10.8% increase in GDP.

The standard error is 7.961428 and the calculated t-Statistic being 1.358246 which is less than the table t-value of 1.708 while probability is 0.1865 (18.65%), which is greater than 5%, showing that test is insignificant. The standard error is 7.961428 showing a high degree of dispersion of the result from the true mean. Hence we accept the null hypothesis in favor of the alternative. This shows that in case of policy making, little attention should be given to this variable as a determinant of GDP.

3.3.4 The impact of inflation on economic growth

The coefficient of inflation (-1.07E+10) is negative implying that decrease in expected inflation will lead to an increase in economic growth. The result shows that a 1% fall in expected inflation will lead to a 10.74% increase in economic growth and a 10% fall in expected inflation will lead to 107.4% increase economic growth. Also, the t-calculated can be used to show the important of A6. The t-calculated is -0.683574 which is less than the table value 1.708, with probability of 0.5005 at a 5% level of significant one tail test. Hence test isinsignificant and we do not reject the null hypothesis. The probability value is high 0.841 supporting the insignificance of the parameter. The standard error is 1.57E+10 showing a high degree of dispersion of the result from the true mean. This variable does not independently influence economic growth.

IV. Conclusions

The study found out that export, foreign direct investment, gross capital formation, remittance money per capita and external debt per capita have a positive relationship with economic growth. While the current account balance and inflation rates have a negative impact of economic growth. From the overall analysis, it is revealed that the variables included in the model have a 96% influence on economic growth while the remaining 4% is accounted for by variables not included in the model. Therefore, if Ghana GDP is to be increased, the government should lay more emphasize on these variables. The government should equally ensure that corruption is brought to the barest level and better coordination couple with good management and implementation should be attained with the encouragement of private sectors development.

Finally, this work also intends to address the present task of making the country an emerging one by 2035. This objective was speculated to be accomplished with the implementation of the growth and strategy paper. This work therefore sets out to complement the attainment of that objective by highlighting foreign trade and its impact on growth which if properly attended to, will yield progressive results.

V. Recommendations

Since this paper found out that export stands to be the major contributors to economic growth in Ghana, it would be wise enough for the government to increase exports if any reasonable amount of growth is to be realized. Therefore, the researchers recommends that the government should create more training institutions like schools that will help better the skill of its labor force for greater productivity. The government should encourage farmers by providing them with loans, agricultural schools, farm to market roads, as most of the export goods come from the agricultural sector.

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