

A STUDY ON MACROECONOMIC DETERMINANTS OF ECONOMIC GROWTH IN KENYA

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Abstract: Economic growth has become a subject of great discussions and debates all over the world. This is because it is a global necessity for alleviating poverty. The Kenyan economy has been experiencing mixed growth levels since independence. With the launching of the Vision 2030 Programme in 2008 that is expected to steer Kenya to a middle-income country, improving the growth rate in Kenya is of paramount importance. The main objective of this study was to examine macroeconomic determinants of economic growth in Kenya. Specific objectives were to determine the effects of inflation rates, gross fixed capital formation, exports, government expenditure, and foreign direct investments on economic growth in Kenya. The method of study adopted in this study is a causal relationship research design. The study utilized secondary data sourced from the Central Bank of Kenya, Kenya Economic surveys, World Bank Development Indicators, Kenya National Bureau of statistics and other written materials. The study period spanned from 1971 to 2011. The time series properties of the data were, first, analyzed using the Augmented Dickey Fuller (ADF) test and then tested for Cointegration using the Engle Granger test. The empirical results derived indicate that all the variables of interest were stationary at level allowing Ordinary Least Square (OLS) analysis to be used to analyze data. The study also found that there is a Cointegration relationship between GDP growth and its macroeconomic determinants. Findings from the study show that government expenditure and GDP for the previous period were significant in influencing economic growth in Kenya. Inflation and exports had weak inverse and positive relationships with growth respectively, both of them statistically significant at 10 percent significance level. Foreign direct investment and gross fixed capital formation, though their coefficients were positive had no significant effects on economic growth at 10% significance level. The implication for policy is that in order for Kenya to foster and sustain growth, closer attention should be given to factors that promote exports, pursuance by the monetary policy authorities of the objective of maintaining inflation rate to single digit, and for the government to continue spending on the productive sectors of the economy such as provision of health care, education, infrastructure, and water and sanitation.

Keywords: Economic growth, Gross domestic Product, Gross fixed capital formation, General Government Final consumption expenditure, Exports, Foreign Direct Investments, Inflation.

1. INTRODUCTION

Although there are conventional facts that represent growth experiences of countries in general, growth remains a complex issue that has spurred many discussions and debates all over the world. From 1970 to 2007, every region globally experienced changes in economic growth. Some grew faster while others grew at a slower rate. In general growth in North America was moderate at 33.3% in 1970 and still remained at 33.3% by 2007. In Western Europe a low growth rate was experienced at 34% in 1970 which declined to 25% in 2007. Asia's rate of growth was high at a rate was 19% of the world economic growth rate in 1970 and 28% by 2007 (World Bank, 2009).

However, the case in African countries was different with a growth rate below the average of the world. In 1820, Africa's per capita income was 40% less than the world average. The gap widened to 60% in 1950, and almost 80% in 2000. According to the United Nations Economic Commission for Africa, in 2009, economic growth in Africa fell from 5.1% in 2008 to 2% as a result of falling exports and the global recession (financial turmoil that originated in the U.S.A.). Although Africa had the lowest growth rate, its performance has improved substantially over the past decade, giving hope for the future and Kenya is not an exception (World Bank, 2009).

Lifting the long run growth rate is, arguably, the pursuit of every economy, Kenya included. After independence in 1963, the immediate challenge that faced the Kenyan economy was how to accelerate economic growth in order to help reduce poverty, improve health care, overcome illiteracy, strengthen democratic and political stability, improve the quality of the natural environment, diminish the incidence of crime and violence, and become an investment destination. The performance of the economy during the first decade of independence in 1963 was impressive.

The second decade ushered in an era of slow and persistent economic decline with average real GDP falling to 5.2% over the period. (Little and Green, 2009). The economic performance kept deteriorating in the subsequent years until 2003 when the National Rainbow Coalition government was elected. The recovery that had begun in 2003 deteriorated with the heavily disputed presidential elections in 2007 which was followed by sharp rises in oil and food prices, the global financial crises, and worst drought in a decade in 2009 (Bureau of African Affairs, 2010).

In 2008, Kenya launched the vision 2030 programme, with the aim of becoming a middle income country by the year 2030 with an average growth rate of 10% for the period. The aim was to transform Kenya into a newly industrialized, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment. This goal can only be realized if there is a high and a sustainable rate of growth above 10% annually. (Bureau of African Affairs, 2010). Failure to understand the determinants of economic growth and prosperity may make the achievement of Vision 2030 Programme impossible. As a result, the question we should be asking is what are the macroeconomic determinants that would drive Kenya's real GDP per capita growth to attain the targeted middle income status by the year 2030?

2. STATEMENT OF THE PROBLEM

In this regard, this study sought to critically analyze the macroeconomic determinants of economic growth in Kenya using the neoclassical growth model and thereby determine the extent to which gross fixed capital formation, exports, inflation rates, government expenditure, and foreign direct investments contribute to the GDP growth in the long-run. It is only by studying the sources and causative factors of economic growth that policy makers can be moved to embark on the proper paths to achieve rapid, sustainable, broad-based economic growth, and prosperity in Kenya.

It is a desire of every nation to achieve economic growth. Because of this, its drivers should be known and thoroughly understood. Therefore, this study shall be of immense benefit to government, private investors, future scholars and students of other related disciplines, policy makers, international agencies and the society as a whole.

3. LITERATURE REVIEW

Many researchers have examined drivers of growth all over the world using a wide variety of explanatory variables. In this section, a selected number of the empirical studies are reviewed. The literature review will be divided into literature for cross country, high growth countries, low growth economies, and lastly in Kenya.

3.1 CROSS COUNTRY EVIDENCE:

Barro (1996) examined the determinants of economic growth for 100 countries during the period 1960 to 1990. He found out that with a starting level of real per capita gross domestic product (GDP), the growth rate was enhanced by higher initial schooling and life expectancy, lower fertility, lower government consumption, better maintenance of the rule of law, lower inflation and improvements in the terms of trade. Sala-i-Martin (1997) estimated cross-sectional regressions on a wide range of disparate countries. He considered sixty-three variables that might potentially explain growth. He found higher growth in countries that have been open to trade and that abide by the rule of law and that are more capitalistic. On the other hand, he found growth to be negatively associated with revolutions, coups, and wars.

Dewan (2001) examined the determinants of economic growth in developing countries using a sample of 41 middle income developing countries. He found out that investment in both physical and human capital, as well as low inflation

and open trade policies were necessary for economic growth and that since many of the developing countries have large agricultural sector, adverse supply shocks were found to have a negative impact on growth. Benito (2009) also analyzed the determinants of economic growth in recent cross countries using the Bayesian Model Averaging. The study concluded that growth-promoting policy strategies should aim to reduce taxes and distortions that raise the prices of investment goods, improve access to international markets and promote democracy enhancing institutional reforms.

3.2 THE CASE OF HIGH GROWTH COUNTRIES:

Chen and Feng (2000) used a statistical analysis of data on twenty-nine (29) provinces and municipalities for the period 1978-1989. They found out that private and semi-private enterprise, higher education and international trade all led to an increase in economic growth in China and that high fertility, high inflation and the presence of state-owned enterprises reduced growth rates among the provinces. Rupasingha, (2002) examined economic growth for the United States, using per capita personal income data for the period 1990-1997. He found out that social and institutional characteristics matter for country income growth.

Baily (2003) of the Institute of International Economies conducted a research on sources of economic growth in the Organization for Economic Cooperation and Development (OECD) countries. The methodology employed was aggregate regression analysis. He found out that investment in physical and human capital, sound macroeconomic policies, government spending, research and development by the business sector, financial market, and international trade were all important factors to economic growth in OECDs and that a larger sized government spending, direct taxes and research and development by the public sector all contributed negatively to economic growth.

Prados and Rose (2005) empirically analyzed the sources of economic growth in Spain for the period 1850 to 2000. Their results seemed to correlate well with some predictions of the new growth theory that predicts that growth in output is proportional to the rate of innovation, to which the rate of capital formation adjusts. Khan (2006) utilized the conventional growth accounting framework to estimate the total factor productivity in Pakistan during the period 1960 to 2003. He confirmed that macroeconomic stability, foreign direct investment, and financial sector development played an important role in the increase of total factor productivity in Pakistan. Interestingly, expenditure on education turned out to be insignificant.

3.3 THE CASE OF LOW GROWTH COUNTRIES:

Adams (2003) looked at the impact of Intellectual Property Rights (IPRs) on economic growth for a cross section of 34 Sub-Saharan (SSA) countries from 1985 to 2003. The results of the study indicated that: (1) strengthening IPRs had a negative effect on economic growth; (2) domestic investment is positively correlated with economic growth; and (3) human capital was an important determinant of economic growth. Hassan and Ahmed (2008) studied education contribution to economic growth of Sub-Saharan Africa using cross sectional panel data regression. They found positive correlations between growth and various definitions of human capital. Sang, Levendis, and Gutierrez (2009) examined the effect on economic growth of mobile cellular phones in sub-Saharan Africa. They found that mobile cellular phone expansion was an important determinant of the rate of economic growth in Sub-Saharan Africa.

Klasen and Lawson (2007) examined the link between population and per capita economic growth, and poverty, using the interesting case study of Uganda. They found both theoretical considerations and strong empirical evidence suggested that the currently high population growth puts a considerable break on per capita growth prospects in Uganda. Khungwa (2007) analyzed the determinants of economic growth in Malawi a time series data from the period 1970 to 2003. She found out that terms of trade, openness, and human capital all had a significant effect on economic growth in Malawi. Musila and Walid (2004) investigated the relationship between government education expenditure per worker and economic growth in Uganda during the period 1965-1999. The empirical results showed that education expenditure per worker had a positive and significant impact on economic growth both in the long run and short run.

3.4 THE CASE OF KENYA:

Mwega (1995) found that productivity growth in Kenya was explained by labour and capital in the post independence Kenya. Kurui (2008) found out that Chinese companies have made a contribution to the economy of Kenya but indicates that more research needs to be done looking at a greater scope of foreign Investments and picking a bigger field of study.

Kumar and Pacheco (2010) investigated the determinants of long run growth using the Autoregressive Distributed Lag (ARDL) approach. They found out that although factor accumulation was important, openness was a key determinant of growth.

Amanja and Morrissey (2005) conducted a study on Foreign Aid, Investment, and Economic Growth in Kenya: A Time Series Approach. They found that shares of private and public investment, and imports in GDP had strong beneficial effects on per capita income in Kenya. However, aid in the form of net external loans was found to have a significant negative impact on long run growth. The implication for policy was that in order for Kenya to foster and sustain growth, closer attention should be given to factors that promote private investment.

4. METHODOLOGY

The paper adopted in this study was a causal relationship research design. The research used secondary data which in this context was suitable in explaining the relationship between the variables included in the model. The study focused on time series data for six variables in Kenya. They are Gross Domestic Product (GDP), Exports, gross capital formation, government expenditure, foreign direct investments, and Inflation. The data was for the period from the year 1971 to 2011. The choice of this period was based on the data availability from various sources. The study investigated the entire study area and as such, there was no sampling undertaken. As mentioned above this study employed secondary data which was collected by accessing public data from the Central Bank of Kenya Bulletins, Kenyan Economic survey (various issues), World Bank Development Indicators, Kenya National Bureau of statistics and other written materials.

Before the data was subjected to a regression analysis, a descriptive statistics test was conducted to provide a general view of the distribution and behavior of variables. This entails showing trends of the variables in form of tables, graphs, and charts. Residual test for normality of the data series was also conducted and the Jacque Bera coefficient and its p –value observed for significance.

Most time series data are known to be non-stationary and analysis of such data without correcting for non-stationarity can lead to the problem of spurious regressions (non-constant mean and variance). Stationarity test was therefore done using Augmented Dickey Fuller test to establish whether the data was stationary or not and also to determine the order of integration of the variables (Engle and Granger, 1987).

5. RESULTS AND DISCUSSION

Regressions results show a small positive impact of FDI (0.000229) on economic growth which was also insignificant at five percent significance level. For gross fixed capital formation, the correlation matrix exhibited a positive correlation with economic growth of 0.5822 which is insignificant at all levels of significance. Upon regression, gross capital formation had a positive coefficient of 0.0427 with a p – value of 0.2064. This signified that it was not a significant determinant of economic growth at all levels. General government final consumption expenditure exhibited a strong positive correlation with economic growth of 0.762 with p- values of 0.00 therefore significant at all levels. Upon regression, the variable was found to be a significant determinant of economic growth with a coefficient of 0.1698 explained by a p- value of 0.0045 therefore significant at five percent. Exports were also found to have a positive insignificant correlation with economic growth with a coefficient of 0.178 and a p- value of 0.0657.

The variable was also found to be an insignificant determinant of growth at five percent significance level with a coefficient of 0.0436 and a p- value of 0.0833. From the findings, inflation exhibited a negative correlation with growth (0.383) significant at five percent significance level (p – value 0.0135< 0.05) and upon regression it was also found to impact negatively on economic growth with a coefficient of 0.0599 explained by p- value of 0.0429 making it significant at five percent.

6. CONCLUSION

Growth is a complex issue and it is never easy to pinpoint a couple of factors as key determinants of growth because these factors vary from country to country. The case for Kenya analyzed in this paper was an attempt towards identifying some of these factors. From the summary of findings it is apparent that the following conclusions can be made.

The general understanding is that foreign direct investments (FDI) is one of the major channels through which advanced technology and expertise is transferred to a developing economy such as Kenya. It is observable from the findings that FDI did not exert significant influence on economic growth in Kenya during the period under investigation. These results are consistent with the findings of (Oteng – Abayie, 2006) who did not find a significant effect of FDI on economic growth in Ghana. However, it contradicted with findings by (Vu et al, 2006; Macias and Massa, 2009) who asserted a significant positive impact of FDI on economic growth.

Results on government expenditure and economic growth converged with studies by amply impacting positively on growth. This outcome coincided with the findings of (Khan, 2006; Jafiya, 2004; Dewan, 2001). The results are however inconsistent with those of (Barro, 1996, 2003; Tanninen, 1999; Weil, 2005). The study has evidently pointed out that exports did not exert a significant positive effect on economic growth. This is a clear indication that for the study period, exports were not significant determinants of economic growth. These findings are consistent with the findings of (Richards, 2001) whose results pointed out that exports were not significant determinants of economic growth but inconsistent with those of (Sharma and Darkal, 2006; Celina and Enyim, 2012; Todaro and Smith, 2009) who found exports to be significant determinants of growth.

Just like FDI, many studies such as (Danquah, 2006; Nicholae, 2008; Rebelo, 1991; Hoover and Perez, 2004) have found Gross capital formation to exert substantial positive significance on growth. However, this was not the case in the study where it was found to have no significant impact on economic growth. The findings on the impact of inflation on economic growth also converged with most studies. The study portrayed a negative impact on economic growth in Kenya for the period of study. The findings are consistent with the findings of (Barro, 1996, 2003; Easterly and Levine, 1993;) but inconsistent with the findings of (Bruno and Easterly, 2001) who were unable to find a long run relationship between inflation and growth.

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