GOVERNMENT AND HOUSEHOLD EXPENDITURE COMPONENTS, INFLATION AND THEIR IMPACT ON ECONOMIC GROWTH IN NAMIBIA

Jacob M. Nyambe and J. N. Kanyeumbo
Department of Economics, University of Namibia, P/Bag 13301, Windhoek
Windhoek, **NAMIBIA**

ABSTRACT

Economic growth is central to job creation and poverty reduction. The desire to advance economic growth depends on various elements including fiscal and monetary tools. In Namibia, while the economy benefits from exports of natural resources mainly diamonds, fish and agricultural products, the role of macro and microeconomic policies remains critical to domestic economic expansion and consumer satisfaction. Household consumption is also imperative to supporting business activities. Inflation affects all sectors of the economy and it should be kept in check so that it does not contract household expenditure. This study is premised on time series annual data for the period 1980 to 2011 with an objective of ascertaining the role that government expenditure, household expenditure and inflation plays in growing the Namibian economy. The paper invokes the use of a multiple regression model for the analysis. The results posit the existence of a positive relationship between economic growth, government expenditure, household expenditure and inflation. However, inflation has a negative relationship with economic growth and has at-statistics of -3.258. Thus, economic policies that seek to grow the Namibian economy should consider government and household expenditures as vital components for the national income stream, *ceteris paribus*. With regards to inflation, while that may not be conducive to consumers, its pertinence should not be underestimated.

Keywords: Household Expenditure, Inflation, and Public Expenditure.

INTRODUCTION

Government expenditure is often regarded as a crucial stimulant of economic activities. In Namibia, the role that the government service-rendering plays, boosts operations of various economic agents. Government expenditure as it is known in many circles, needs to grow in nominal terms in order for services to continue to be rendered. In theory, the causes of expenditure growth are a result of increased need in the transport, education, the introduction of welfare programmes and the rise in defense spending (Musgrave and Musgrave, 1982).

With regards to the Namibia economy, in 2014, the economy grew at 4.5%. Inflation averaged at 5.4% in the same year. On the global ranking, Namibia is an upper middle income country with the human life expectancy at birth standing at 64 years (World Bank, 2015). Agriculture is the largest employer but with a small contribution while mining is the biggest foreign currency earner. Exportable commodities are beef, grapes, diamonds, fish and zinc.

It is undoubtedly clear that the relationships that government expenditure, household expenditure and inflation, as well as their roles towards economic growth in Namibia need to be demystified. The objectives are to establish the kind of relationship that these variables have with economic growth and the economic role that such relationships offer to the Namibian economy. This study is carried out in two ways, namely by reporting on existing literature on the variables that were selected and also on carrying out an empirical determination of the economic role through a modelling technique.

LITERATURE REVIEW

In a paper, by Alshrani and Alsadiq (2014) in which they examined the effects of different types of government expenditures on economic growth in Saudi Arabia making use of the Vector Auto Regression, Co-integration and Vector Error Correction Model techniques and using annual data over the period of 1969 to 2010 to estimate the short- and long-run effects of these expenditures on growth found that "while private domestic, public investments, and healthcare expenditure stimulates growth in the long-run, trade openness and spending in the housing sector can also boost short-run production.

In a paper by Arpaia and Turrini (2008) on a sample of 15 European Union member states analyzed the log –run and short-run relation between government expenditure and potential output and found that the hypothesis of a long-term elasticity between cyclically-adjusted primary expenditure and potential output close to unity could not be rejected.

Bagdigen and Cetentas (2003) applied Wagner's Law in examining the long-run relationship between public expenditure and GDP for the Turkish case over the period of 1965-2000, stating that "the relationship is expected to have public expenditure as an outcome, not cause, of growth in GDP". These authors used co-integration test and the Granger Causality test and found that there was no causality in both directions implying that neither Wagner's Law nor Keynes' hypothesis was valid for the Turkish case.

In a disaggregated analysis of developing countries Bose, Hague and Osborn (2007) examined the growth effect of government expenditure on a panel of 30 developing countries. The findings were that the share of government capital expenditure in GDP is positively and significantly correlated with economic growth. However, it was found also that current expenditure was insignificant. In a paper examining the long and short-run relationship between public expenditure and economic growth in Nigeria, Egbetunde and Fasanya (2013) used the bounds testing (ARDL) approach on annual time series data covering the period of 1970-2010. They found that the variables of interest in the framework were bound together in the long-run and the associated equilibrium correction was significant which implies an existence of a long-run relationship. Their findings revealed that the impact of total public expenditure on economic growth is negative.

Gangal and Gupta (2013) studied whether or not there is a unidirectional relationship between public expenditure and economic growth in India using the Granger Causality test. The authors found that there was a linear stationarity in both the variables indicative of a long-run equilibrium, and there is a positive impact of public expenditure on economic growth. Further they confirmed the presence of a unidirectional relationship running from total public expenditure to GDP and vice versa. Chude and Chude (2013) writing on the effects of public expenditure in education on economic growth in Nigeria using the Error Correction Model (ECM) and applying time series econometrics techniques. They examined the long- and short-run effects of public expenditure on economic growth and found that the total expenditure on education is highly and statistically significant and has a positive long-run effect on economic growth in Nigeria.

Employing data from Greece, United Kingdom and Ireland, Lozides and Vamvoukas (2005) applied the bivariate error correction model and found that government expenditure granger causes economic growth in the short-run in all countries where the sample was drawn and in the long-run for United Kingdom (UK) and Ireland. When inflation was added, for the UK and Greece, it was found that economic growth granger causes increases in the relative size

of government expenditure. Le and Suruga (2005) examined the interaction effects of FDI and public expenditure on economic growth. Their findings are that excessive spending in public expenditure can hinder the beneficial impact of FDI. In a paper that focused on the effects of government size and composition of public expenditure on economic growth, Martins and Veiga (2014) found that government size as a percentage of GDP has a quadratic effect on the growth rate of the Human Development Index in developed and high income countries.

A study by Nworji et al (2012) in which they studied the effect of public expenditure on economic growth in Nigeria for the period 1970-2009, they used an OLS multiple regression model specified on perceived causal relationship between government expenditure and economic growth. Their results revealed that capital and recurrent expenditure on economic services had insignificant negative effect on economic growth. Using the Gregory-Hansen structural breaks co-integration technique to examine the relationship between public expenditure and economic growth in Nigeria, Oyinlola and Akinniboun (2013) confirmed Wagner's Law in two models in the long-run. Their results showed that economic growth and development were the main objectives of government expenditure in Nigeria.

Employing co-integration approach and error correction model to examine the causal nexus between public expenditure and economic growth in India, Srinivasan (2013) found that there was an existence of a long-run equilibrium relationship between public expenditure and economic growth, while the error correction model results indicated a one-way causality that ran from economic growth to public expenditure in both the short- and long-run, in support of Wagner's Law of public expenditure. Baro (2013) employed data from 100 countries to assess the effect of inflation on economic performance and found that average increases in inflation by 10% points per year reduced the growth rate of real per capita GDP and the ratio of investment to GDP. Statistically significant results were however, only observed when high-inflation experiences were included in the sample.

Bick (2010) examined the relation between inflation and economic growth, and found that the omitted variable bias of standard panel threshold models can be statistically and economically significant. When examining the effects of inflation variability and economic growth using annual data on developed and developing nations, Jha and Dang (2011) found a significant evidence suggesting that when the rate of inflation exceeds 10%, inflation variability has a negative effect on economic growth in developing countries. However, there was no significant evidence suggesting that inflation negatively impacted on economic growth in developed countries.

Kasidi and Mwakanemela (2013) employed time series data for the periods 1990-2011 and used correlation coefficient and co-integration techniques to examine the impact of inflation on economic growth in Tanzania. Their results indicate that inflation has a negative impact on economic growth and that there was no co-integration between inflation and economic growth during the period of study. The study also revealed that there was no long-run relation between inflation and economic growth in Tanzania. Employing co-integration and error correction models and making use of annual data to examine the relationship between inflation and economic growth in India, Prasanna and Gopakumar (2013) concluded that there was a long-run negative relationship between inflation and GDP growth rate. In a study on Sub-Saharan Africa in which Yasin (2013) examined the effect of government expenditure on economic growth using panel data. He found that government expenditure, trade

openness, and private investment spending all have positive and significant effect on economic growth.

METHODOLOGY

Data used in this paper was obtained from the Namibia Statistics Agency and Bank of Namibia databases. Intuitively, the national income stream can be written in its simplicity form as GDP= C+I+G+NX which represents the growth national income as being a product of consumption by households, investments by firms, government purchases and net exports. There is more to this equation. However, in the interest of the current study, the focus is on testing the relationship that emanates from economic growth as being a product of household expenditure, government expenditures and the variable inflation. This study is based on the following econometric model:

$LnG_{dp} = \varphi + \varrho LnGov_{ex} + \varrho LnHH_{ex} + \varrho LnI_{fl} + \varepsilon$

Where:

LnG_{dp} denotes economic growth and in this case its proxy is the GDP variable. In the same way, φ is a constant, ϱ represents all parameters that were estimated. The independent variables are transformed to natural logarithms and are: $LnGov_{ex}$ representing public expenditure, $LnHH_{ex}$ is household expenditure and LnI_{fl} is inflation. There is also a disturbance term ε.

RESULTS AND DISCUSSION

The output from a multiple regression model that was run in the SPSS software yielded results that are presented in Table 1. Interpretations of the indicators that are presented in Table 1 follow below.

Table 1: Model Results

Model	Coefficients ϱ	t	p-value
φ	11.425	6.731	.000
LnG_{ex}	.563	7.498	.000
LnH_{ex}	1.488E-5	4.417	.000
LnI_{fl}	-.099	-3.258	.003

On the F test, the value 288.95 is an indicator that the model fits the data. Furthermore, the adjusted R^2 is 96% reflective of the fact that variations in economic growth are due to the variables' contribution to the national income stream. Public expenditure in Namibia is positively related to economic growth. Thus a unit increase in government expenditure will yield 0.563 increases in economic growth *ceteris paribus*. This is also supported by the positive relationship indicated by a t-statistics of 7.498 with a significant p-value. The same applies to household expenditure that has a 0.000001488 coefficient point and the t-statistics of 4.417 with a significant p-value. However, the incremental value to the economy that arises from public expenditure is higher than that from household expenditure. This outcome is based on high spending behaviour that the Namibian Government has embarked on. The high increases in the budget towards education, health and defense are some of the noticeable allocations.

The only variable with a negative relationship with GDP is inflation that yielded a -0.99 coefficient. The t-statistics is significant for inflation. Given the negative relationship with economic growth, it can be argued that high inflation has a descending welfare costs on households. This mainly occurs from a food inflation perspective which is more serious on

poor households compared to rich households. These results are plausible and concurs with those by Koch and Bosch (2009) who argued that the rich suffers much from inflation but less on food inflation when compared to poor households More so is the fact that high inflation can also reduce public expenditure which has a bearing on service provision. Both government and household expenditures contribute to national economic growth and as such when growth in both these variables is curtailed, economic growth suffers at large.

CONCLUSION

The fact that inflation is problematic to government and household expenditures suggests the need to keep it in check by custodians of monetary policy. The noble thing should be to ensure that inflation does not spiral across economic activities. So far, Namibia has managed to maintain a reasonable inflation rate that has been below the double digit frame. Advancing government expenditure in the atmosphere of stable inflationary pressure is appropriate on the basis that Namibia has been experiencing a balance of payment deficit for a while. Such can make it easier for importers of goods that are not sourced locally to continue with their economic activities. From an external lender's perspective, borrowing to finance the fiscus budget-deficit can also assist in recovering the needed funds when the interest rate is high in the country, an element that has not formed part of this paper but pertinent to moderating inflation.

With regards to household expenditure, disposable income can be undermined by rising inflation in the country. Unless there is inflation targeting, the benefits of maintaining low inflation figures might not be realised. Therefore, economic growth can thrive when both government and household expenditures are not undermined by inflation which also means that their contributions to economic growth will remain meaningful.

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