Barlas, Ahmad Walid. (2020), The Impact of Government Expenditure on Economic Growth in Afghanistan. In: Journal of Economics and Business, Vol.3, No.2, 729-733.

ISSN 2615-3726

DOI: 10.31014/aior.1992.03.02.234

The online version of this article can be found at: https://www.asianinstituteofresearch.org/
The Impact of Government Expenditure on Economic Growth in Afghanistan

Ahmad Walid Barlas

1 Lecturer and Head of BBA Department at Samangan Higher Education Institute, Afghanistan
Email: Ahmad.barlas@ruhr-uni-bochum.de

Abstract
This study evaluates the impact of expenditure compositions on economic growth in Afghanistan. The data was collected from the World Bank and Ministry of Finance using a period of 2004 to 2019. The gross domestic product was stated as dependent variable and public expenditure compositions were included as independent variables. The adjusted Keynesian function was applied to estimate the impact of government expenditure on economic growth. Unit root test, Johansen co-integration test and bound test were checked. All variables were stationary at level and first difference. Hence, Autoregressive Distribution Lag (ARDL) model was applied. Our findings expose that there is a long-run relationship between dependent and independent variables. Furthermore, the previous and current expenditures on education and infrastructure are positively correlated with economic growth in Afghanistan. But, security expenditure is negatively linked with growth rate. The adjusted $R^2$ revealed that 99% variation of dependent variable explained by independent variables. To increase the economic growth rate, the government should adopt precise and accurate control on its spending on defense, as to reduce corruption and mismanagement.

Keywords: Public Expenditure, Economic Growth, Keynesian Function, Afghanistan

Introduction
Since 1960, it has been crucial for the government to spend state expenditure into different sectors of the economy. As such, public expenditure denotes to the expenses incurred by the government for the provision and maintenance of distinct public goods and to accelerate economic growth rate (Muhammed & Asfaw, 2014). Economic growth defines as an increase in output of an economy’s capacity to produce goods and services to promote the wellbeing of residents within a country (Adamu, Jibir, & Hajara, 2015). Several scholars examined the correlation between public expenditure and economic growth in different regions, but there is not a concrete result on which components of public expenditure has direct effect on economic growth (Muhammed & Asfaw, 2014).

Many scholars like Aschauer (1989) claims that increase in government expenditure on both social and physical capital speeds up economic growth. For instance, public expenditure in social service boosts the labor productivity and augments the growth of national output. At the same vein, government spending on infrastructure such as road, communication power and so on declines the cost of production, encourages private sector investment and promotes economic growth. Conversely, some academics like Babatunde (2007) argue that increasing government
expenditure reduces the economic growth. He believes that government may cover this enhancement through tax raise and/or borrowing. Higher tax rate discourages employees for longer working hours and/or searching new jobs, which declines income and aggregate demand.

Many scholars have explored the impact of government spending on economic growth rate. Landau (1985) studied the correlation between government expenditure and economic growth in the developed countries. He exposed that public consumption and investment expenditure declined economic growth rate. At the same vein, Grier and Tullock (1989) analyzed impact of government consumption on economic growth over a period of 1951-80 in 113 countries. They found that economic growth is negatively associated with public expenditure in the OECD countries. A similar finding was confirmed by Dar and AmirKhalkhali (2002) and Fölster and Henrekson (1999). Conversely, Patricia and Izuchukwu (2013) analyzed the impact of education expenditure on economic growth in Nigeria using a period of 1977 to 2012. Their findings revealed a positive and significant long-term correlation between education expenditure and economic growth. Furthermore, Lahirushan & Gunasekara (2015) investigated the relationship between public expenditure and economic growth in Asian countries using secondary data of 1970 to 2013. Their results showed a positive and significant association between targeted variables. Moreover, they confirmed a long-term relationship for government expenditure and gross domestic products in Asian countries. Kapunda & Topera (2013) studied the components of public expenditure and its effect on economic performance in Tanzania during the time of 1965 to 2010. They found a positive and significant effect of capital expenditure on economic performance. But expenditure on health, agriculture, infrastructure, defense and general public services are reported insignificant.

Afghanistan has suffered decades of war and conflict, which damaged economic, social and political infrastructures. Since 2002, the new government allocates millions of dollars to rebuild the communities and to improve the welfare of households in the country. Government budget is classified into two main categories; operational and development. In 2004, domestic revenues financed only 50.6% of operational budget. The remained part of operational budget and total development budget are financed by international assistance (MoF, 2004). Majority of these funds provided by the international partners, so the money should be utilized wisely and devote on sectors with more productivity. Unfortunately, there is not any noticeable investigation to address the impact of expenditure components on economic growth in Afghanistan. This study analysis this correlation and provides information to policymakers on usage of limited financial resources. For meaningful results the following research question is posed:

1. What is the correlation between expenditure compositions and economic growth?

**Data and Function Specification**

This study relied on secondary data. The data obtained from the Afghanistan Ministry of Finance and the World Bank. It contained over the period of 2004 to 2019. This research applied the adjusted Keynesian function, which was adopted by Muhammed & Asfaw (2014) and Nurudeen and Abdullahi (2010) in the context of Ethiopian and Nigerian economic growth. The empirical function is posed as follows:

\[ GDP = F(Edu, sec, Inf, \ldots) \] \hspace{1cm} (1)

The above equation is converted into ln model and it formed as below:

\[ \ln GDP = \beta_0 + \beta_1 \ln Edu + \beta_2 \ln Inf + \beta_3 \ln Inf + \varepsilon \] \hspace{1cm} (2)

Where:

- GDP = gross domestic product
- Edu = expenditure on education
- Sec = expenditure on security
- Inf = expenditure on infrastructure
- \( \varepsilon \) = error term
- \( \beta \) = unknown parameters
Results

This study analyzed the impact of expenditure compositions on economic growth in Afghanistan. Gross domestic product is stated as dependent variable and education, infrastructure, and security expenditures are included as independent variables. In time series analysis, it is a precondition to check whether the variables are stationary or not. The Augmented Dickey Fuller (ADF) test is employed to check the order of integration for all variables. The unit root test results presented in Table 1. This exposes that all variables are stationary at level or first difference. Gross domestic product, education and security are stationary at their first difference. Only infrastructure is stationary at its level.

### Table 1: Unit root test results

| Variables | Level ADF Test | P-value | First Difference ADF Test | P-value |
|-----------|----------------|---------|---------------------------|---------|
| Ln_gdp    | -0.3088        | 0.9799  | -3.5045                   | 0.0947  |
| Ln_edu    | 0.3998         | 0.9963  | -4.2514                   | 0.0291  |
| Ln_inf    | -4.2074        | 0.0258  | -6.4407                   | 0.0011  |
| Ln_sec    | -1.0504        | 0.9008  | -6.4407                   | 0.0011  |

Source: EViews output

The Johansen co-integration test was employed to check the integration and co-movement between dependent variable and independent variables. This method considered both unrestricted Trace and Eigen value tests. The estimated findings confirm an integrated relationship between GDP and government spending. This result is in line with Gangal and Gupta (2013), Olabisi and Funlayo (2012), Muhammed and Asfaw (2014).

### Table 2: Co-integration test results

#### Unrestricted co-integration rank test (Trace)

| Hypothesized No. of CE(s) | Engen value | Trace Statistics | 0.05 Critical Value | Prob.** |
|---------------------------|-------------|------------------|----------------------|---------|
| None *                    | 0.9928      | 110.04           | 47.8561              | 0.0000  |
| At most 1 *               | 0.8643      | 40.854           | 29.7970              | 0.0018  |
| At most 2                 | 0.4746      | 12.881           | 15.4947              | 0.1192  |
| At most 3 *               | 0.2414      | 3.8691           | 3.84146              | 0.0492  |

#### Unrestricted co-integration rank test (Maximum Eigen value)

| Hypothesized No. of CE(s) | Engen value | Max-Eigen Statistics | 0.05 Critical Value | Prob.** |
|---------------------------|-------------|----------------------|---------------------|---------|
| None *                    | 0.9928      | 69.194               | 27.5843             | 0.0000  |
| At most 1 *               | 0.8643      | 27.972               | 21.1316             | 0.0047  |
| At most 2                 | 0.4746      | 9.0123               | 14.2646             | 0.2851  |
| At most 3 *               | 0.2414      | 3.8691               | 3.84146             | 0.0492  |

Source: EViews output

The unit root test revealed that all variable are stationary at their level and first difference. Hence, the Autoregressive Distribution Lag (ARDL) model was employed to estimate the impact of expenditure components on economic growth. Table 3 demonstrates details of ARDL test:

### Table 3: ARDL model results

| Variable | Coefficient | Std. Error | t-Statistics | Probability |
|----------|-------------|------------|--------------|-------------|
| C        | -13.1739    | 3.4764     | -3.7894      | 0.0631      |
| ln_gdp (-1) | 0.6245 | 0.1813     | 3.4430       | 0.0750      |
| ln_gdp (-2) | 0.9917 | 0.2160     | 4.5871       | 0.0444      |

731
Table 4 reports the results of bound test. This test checks long-run relationship between dependent variable and independent variables. The calculated F-statistic (13.1706) is higher than the upper bound critical value (4.66) at 1 percent level. Thus, the null hypothesis is rejected, meaning long-run relationship among variables.

**Conclusion and policy recommendation**

This study analyzed the impact of expenditure compositions on economic growth in Afghanistan using ARDL model. The unit root test and Johansen co-integration test were check. The results show that dependent and independent variables are stationary at their level and first difference. Furthermore, these variables are integrated. The estimated coefficients of education and infrastructure affect economic growth rate directly. However, expenditure on security is negatively linked with economic development.
Based on the above findings, this study proposes the following recommendations. First, the government should prioritize its expenditures. Second, to increase economic development the government should adopt precise and accurate control on its spending on defense to reduce fraud and mismanagement. Finally, the government should increase expenditure on education and infrastructure to accelerate economic growth.

Acknowledgement
I would like to express my pleasure and profound gratitude to Higher Education Development Program (HEDP) and Ministry of Higher Education (MoHE) for their research grant. Academic Support of MoHE motivates us to work hard and conduct more research projects.

References
Adamu, Jibir, & Hajara, B. (2015). Government Expenditure and Economic Growth Nexus: Empirical Evidence from Nigeria (1970-2012). *Journal of Economics and Finance, 6*(2), 61-69.
Aschauer, D. A. (1989). Is Public Expenditure Productive? *Journal of Monetary Economics, 23*, 177-200.
Babatunde, M. A. (2007). A Bound Testing Analysis of Wagner's Law in Nigeria: 1970-2006. *Proceedings of Africa Metrics Conference*.
Dar, A. A., & AmirKhalkhali, S. (2002). Government size, Factor Accumulation, and Economic Growth: Evidence from OECD Countries. *Journal of Policy Modeling, 24*, 679-692.
Fölster, S., & Henrekson, M. (1999). Growth and the Public Sector: A Critique of the Critics. *European Journal of Political Economy, 15*, 337-358.
Gangal, V. L., & Gupta, H. (2013). Public Expenditure and Economic Growth: A Case Study of India. *Global Journal of Management and Business Studies, 3*(2), 191-196.
Grier, K. B., & Tullock, G. (1989). An Empirical Analysis of Cross-Sectional Economic Growth, 1951-80*. *Journal of Monetary Economics, 24*, 259-276.
Kapunda, S., & Topera, J. (2013). Public Expenditure Composition and Economic Growth in Tanzania: Socio-Economic Policy Implications. *Asian-African Journal of Economics and Econometrics*, 61-70.
Lahirushan, K., & Gunasekara, W. (2015). The Impact of Government Expenditure on Economic Growth: A Study of Asian Countries. *International Journal of Humanities and Social Sciences, 9*(9).
Landau, D. L. (1985). Government Expenditure and Economic Growth in the Developed Countries: 1952-76. *Public Choice, 47*, 459-477.
Lebovic, J. H., & Ishaq, A. (1987). Military Borden, Security Needs, and Economic Growth in the Middle East. *Journal of Conflict Resolution, 31*(1), 106-138.
Lim, D. (1983). Another Look a Growth and Defense in Lessed Developed Countries. *Economic Development and Cultural Change, 31*(2), 377-384.
Mathui, J. N., Kosimbei, G., Maingi, J., & Thuku, G. K. (2013). The Impact of Public Expenditure Components on Economic Growth in Kenya 1964-2011. *International Journal of Business and Social Science, 4*(4), 233-253.
MoF. (2004). *National Budget of 1383*.
Muhammed, A., & Asfaw, M. (2014). Government Spending for Economic Growth in Ethiopia. *Journal of Economics and Sustainable Development, 5*(9).
Nurudeen, A., & Abdullahi, U. (2010). Government Expenditure and Economic Growth in Nigeria, 1970-2008: A Disaggregated Analysis. *Business and Economic Journal, 4*.
Olabisi, A. S., & Funlayo, O. E. (2012). Composition of Public Expenditure and Economic Growth in Nigeria. *Journal of Emerging Trends in Economics and Management Sciences, 403-407*.
Paley, T. (2015). Assessing The Impact of Infrastructure on Economic Growth and Global Competitiveness. *Procedia Economics and Finance, 23*, 168-175.
Patricia, N., & Izuchukwu, D. (2013). Impact of Government Expenditure on Economic Growth in Nigeria. *International Journal of Business and Management Review, 64-71*.
Singh, R. J., & Weber, R. (1997). The Composition of Public Expenditure and Economic Growth: Can Anything be Learned from Swiss Data? *Swiss Journal of Economics and Statistics, 133*(3), 617-634.