

**INVESTIGATING THE DYNAMIC RELATIONSHIP BETWEEN
GOVERNMENT AGRICULTURAL EXPENDITURE AND
AGRICULTURAL GROWTH IN AFGHANISTAN: A VECM ANALYSIS**

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ABSTRACT

Purpose: This paper aims to study the effect of government agricultural expenditure on agricultural growth in Afghanistan using time series data from 2002 to 2020.

Design/methodology/approach: Empirical analysis is carried out with the time series econometric techniques and vector error correction model (VECM).

Findings: The results show that agricultural expenditure had a positive and significant effect on agricultural gross domestic product, while the exchange rate had a positive but insignificant impact on agricultural gross domestic product in the short run. However, both agricultural expenditure and the exchange rate had a negative impact on the agricultural gross domestic product in the long run. And also, the result of the Granger causality test revealed that agricultural expenditure and exchange rate together do not cause the agricultural GDP even though agricultural expenditure and exchange rate exclusively do not cause agricultural GDP.

Research limitations/implications: No positive relationship between agricultural expenditure, exchange rate, and economic growth in the long run has been established. However, this issue has been brought to the attention of researchers for further investigation.

Practical implications: The government of Afghanistan and donor organizations invest in projects that have a long-run influence on the agricultural sector and maintain accountability in the use of funding.

Originality/value: The results presented in the paper are original. Some insights about the impact of agricultural expenditure on agricultural growth have been highlighted.

KEYWORDS: Government Expenditure, Agricultural Growth, ADF, Johansen Cointegration Test, ECM, Afghanistan.

REFERENCES

Ahmed, T., Khan, K. S., & Naeem, M. (2019, March). The Effect of Public Spending on Agricultural Growth: Evidence from 1972 to 2014 in Pakistan. *Sarhad Journal of Agriculture*, 349-357. doi: <http://dx.doi.org/10.17582/journal.sja/2019/35.2.349.357>

Akintunde, Y. W., A. A. A, A., & Okoruwa, V. O. (2013, November). An analysis of federal government expenditure and monetary policy on agricultural output in Nigeria. *International Journal of Economics, Finance and Management Sciences*, 1, 310-317. doi:10.11648/j.ijefm.20130106.17

Armas, E. B., Osorio, C. G., Moreno-Dodson, B., & Abriningrum, D. E. (2012). *Agriculture Public Spending and Growth in Indonesia*. Washington, DC 20433 USA: The World Bank East Asia Region Poverty Reduction and Economic Management Unit.

Iganiga, B. O., & Unemhilin, D. O. (2011). The Impact of Federal Government Agricultural Expenditure on Agricultural Output in Nigeria. *Journal of Economics*, 81-88. doi:10.1080/09765239.2011.11884939

Agarwal, M. K., & Ansari, S. (2022). Impact of Public Debt on the Economic Growth of Subnational Economies in India. *Economic & Political Weekly*, 49-57.

Anderu, K. S., & Omotayo, E. O. (2020). Agricultural output and government expenditure in Nigeria. *Jurnal Perspektif Pembiayaan dan Pembangunan Daerah*, 8, 2355-8520. doi:10.22437/ppd.v8i2.9106

Apata, T. (2020). Effect of public spending on agricultural productivity in Nigeria (1981-2018). *Revista Galega De Economía*, 30, 1-21. doi:<https://doi.org/10.15304/rge.30.2.6862>

Bathla, S. (2017, October). Public Investment in Agriculture and Growth: An Analysis of Relationship in the Indian Context. *Research Gate*, 13-28. doi:10.1007/978-981-10-6014-4_2

Chandio, A. A., & Rehman, A. (2016). Impact of Government Expenditure on Agricultural Sector and Economic Growth in Pakistan. *International Journal of Biology and Biotechnology* · September 2016, 7, 1046-1053. Retrieved from <https://www.researchgate.net/publication/309210938>

De, U. K., & Dkhar, D. S. (2018). Public Expenditure and Agricultural Production in Meghalaya, India. *International Journal of Environmental Sciences & Natural Resources*, 8(2), 71-78. doi:10.19080/IJESNR.2018.08.555735

Domar. (1946). Capital Expansion, Rate of Growth, and Employment. *Econometrica*, 14, 137-147. Retrieved from <https://www.jstor.org/stable/1905364>

Ebenezer, M., Ngarava, S., Etim, N.-A., & Popoola, O. (2019). Impact of Government Expenditure on Agricultural Productivity in South Africa. *The Journal of Social Sciences Research*, 1734-1742. doi: <https://doi.org/10.32861/jssr.512.1734.1742>

Harris, R. D., & Fuller, D. Q. (2014). Agriculture: Definition and Overview. 104-113. doi:10.1007/978-1-4419-0465-2_64

Harrod. (1939). An Essay in Dynamic Theory. *The Economic Journal*, 14-33. Retrieved from <https://www.jstor.org/stable/2225181>

Idoko, C., & Jatto, S. M. (2018). GOVERNMENT EXPENDITURE ON AGRICULTURE AND ECONOMIC GROWTH IN NIGERIA (1985-2015). *International Journal of Academic*

Research and Reflection, 6, 24-39. Retrieved from <https://www.researchgate.net/publication/351904625>

Jawaid, S. T. (2014). Trade Openness and Economic Growth: A Lesson from Pakistan. *Foreign Trade Review*, 193-212. doi:10.1177/0015732514525223

Leao, I., Ahmed, M., & Kar, A. (2018). *Jobs from Agriculture in Afghanistan*. Washington: World Bank Group. Retrieved from www.worldbank.org

Maïga, A., Bamba, A., Sy, B., Keita, G. H., Mouleye, I. S., & Diallo, M. (2021). Analysis of the Effects of Public Expenditure on Agricultural Growth in Mali. *Asian Journal of Agricultural Extension, Economics &*, 42-50. doi:10.9734/AJAEES/2021/v39i730607

Matchaya1, G. C. (2020). Public spending on agriculture in Southern Africa: sectoral and intra-sectoral impact and policy implications. *Journal Pre-proof*, 1-28. doi:<https://doi.org/doi:10.1016/j.jpmod.2020.05.002>

NSIA. (2005-2022). *Afghanistan Statistical Yearbook 2022*. Kabul: National Statistics and Information Authority.

Raza, S. A., & Jawaid, S. T. (2013, November). Terrorism and tourism: A conjunction and ramification in Pakistan. *Advances in Applied Sociology*, 9, 65-70. Retrieved from <https://doi.org/10.1016/j.econmod.2013.03.008>

RUFUS, O. O., & OYEWOLE, A. O. (2018, May). PUBLIC EXPENDITURE ON AGRICULTURE AND OUTPUT GROWTH IN NIGERIA. *International Journal of Arts and Commerce*, 7(4), 60-78. Retrieved from www.ijac.org.uk

Singh, O. K., Priscilla, L., & Vatta, K. (2022). The impact of public expenditure on agricultural growth: empirical evidence from Punjab, India. *Agricultural Economics Research Review* · February 2022, 157-164. doi: 10.5958/0974-0279.2021.00023.9

Tijani, A. A., Oluwasola, O., & Baruwa, O. I. (2015). PUBLIC SECTOR EXPENDITURE IN AGRICULTURE AND ECONOMIC GROWTH IN NIGERIA: AN EMPIRICAL INVESTIGATION. *Agricultural Economics Research, Policy and Practice in Southern Africa*, 76-92. doi: 10.1080/03031853.2015.1073000

Timothy, M., Khazamula, C. P., Francis, A., Tichaona, K. P., Nelson, R. E., & Aluwani, M. (2015). Impact of Public Expenditure on Agricultural Growth: Error Correction Model for South Africa and. *Journal of Human Ecology*, 245-251. doi:10.1080/09709274.2015.11906881

Uremadu, S. O., Ariwa, F. O., & Uremadu, C. E. (2018). Impact of Government Agricultural Expenditure on Agricultural Productivity in Nigeria. *Current Investigations in Agriculture and Current Research*, 679-688. doi:10.32474/CIACR.2018.05.000215.

Wangusi, C., & Muturi, D. (2015). Impact of Agricultural Public Spending on Agricultural Productivity: Case Study of Kenya. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 180-187. Retrieved from <http://gssrr.org/index.php?journal=JournalOfBasicAndApplied>

Wani, N. U. (2019). Nexus Between Openness to Trade and Economic Growth: An Empirical Investigation of Afghanistan. *South Asia Economic Journal* , 1-19. doi: 10.1177/1391561419858242

Zeraibi , A., & Mivumbi, M. (2019). The impact of public Expenditure on the Agricultural Sector Productivity in China. *American Journal of Humanities and Social Sciences Research (AJHSSR)*, 03, 173-180. Retrieved from <https://www.researchgate.net/publication/336056359>