Impact of Population, Economic Growth on Food Security- Evidence from Sri Lanka

Jayasanaka., H. P. W P [1], Yapa., L.G.D.D[2] and Kethmi., G.A.P[3]
Department of Finance,
Faculty of Commerce and Management Studies,
University of Kelaniya
pamodajayasanka98@gmail.com[1], dusharadivyanjalee@gmail.com[2], kethmip@kln.ac.lk[3]

Globally, there is much concern about food security. As per the United Nations' Committee, food security is defined as all people, at all times, having physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life. Ensuring food security will ultimately lead to achieving "Zero hunger, "the second aim of the Sustainable Development Goals. The demand for food has increased due to the growing population. Further, food security is managed by economic growth and diversification, creating employment for most of the population. This paper investigates the impact of population and economic growth on food security in Sri Lanka. This study uses secondary data collected from the World Bank Data Base for the period from 1990 to 2021 to examine the influence of population growth rate and GDP per capita on food security using R software. Cointegration is used to identify the long-term relationship, and the vector error correction model (VECM) is applied to discover the short-term relationship between the variables. The study's result reveals a long-run relationship between population growth rate, GDP per capita, and food security. Furthermore, there is a positive relationship between food security, population growth rate, and GDP in Sri Lanka. Therefore, the study's results imply population and economic importance on food security. The challenge is to serve the world's expanding population with a sustainable, secure supply of safe, reasonably priced food. If a country fails to develop a food security strategy, it will lead to an increase the government expenditure followed by cease of long-term economic growth. Thus, policymakers need to ensure food security by considering the population and economic growth of the country.

Keywords: *Economic Growth, Food Security, Population Growth, Sustainable Development Goals, Vector Error Correction Model*

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Jayasanaka., H. P. W P[1*], Yapa., L.G.D.D[2], and Kethmi., G.A.P[3]

[1]Department of Finance, Faculty of Commerce and Management Studies, University of Kelaniya, Sri Lanka (pamodajayasanka98@gmail.com*)
[2]Department of Finance, Faculty of Commerce and Management Studies, University of Kelaniya, Sri Lanka
[3]Department of Finance, Faculty of Commerce and Management Studies, University of Kelaniya, Sri Lanka

Purpose

This paper investigates the impact of population and economic growth on food security in Sri Lanka.

Analysis

Using R software, the data sets were checked for outliers and replaced with winchorising. Then, checked wether they were stationary or not using Phillips-Perron Unit Root Test and differenciated to make the model stationary. Finally, auto ARDL model was applied to find optimum lag values and to get the summary of best model.

Findings

The result of the study reveals that there is a long run relationship among population growth rate, GDP per capita and food security. Furthermore, there is a positive relationship between food security and population growth rate and GDP in Sri Lanka.

Methodology

This study has used secondary data from 1990 to 2021 to examine the influence of population growth rate and GDP per capita on food security using R software. Cointegration is used to identify the long-term relationship between the variables.

Conclusion

The results of the study imply the importance of population and economic growth on food security. The existing challenge is to serve the world's expanding population with a sustainable, secure supply of safe, reasonably priced quality food. If a country fails to develop a food security strategy, it will lead to increase the government expenditure and followed by cease of long-term economic growth. Thus, policymakers need to ensure the food security by considering the population and economic growth of the country.

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