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Reexamining the causal relationship between government expenditure and national income in four South Asian countries

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This study reexamines the causal relationship between government expenditure and national income to verify whether Wagner's Law holds in the context of four South Asian countries. According to Wagner's Law, an increase in national income increases public expenditures. The sample includes four South Asian countries; Pakistan, India, Sri Lanka, and Bangladesh from 1980 to 2020. National income and government expenditure are measured by real GDP (Gross Domestic Product) and real total government expenditure respectively. Per capita measures are obtained by dividing the real measures by population figures. First, the stationarity properties of the two macro variables are assessed using the Augmented Dickey-Fuller (ADF) test. Second, the Johansen co-integration test is used to examine whether the variables under investigation have common trends in the long run. Next, causality testing techniques in the Granger framework are used to examine the causality relationship in the forms of Wagner's hypothesis and its reverse. Based on the results of the co-integration test, vector autoregressive (VAR) models are used for Pakistan and India. Since a long-run equilibrium relationship exists between the two variables for Sri Lanka and Bangladesh, vector error correction (VEC) models are used to detect the direction of causality. The results reveal a bi-directional causality running from national income to government expenditure and vice versa for Sri Lanka. However, for the remaining three countries, there is no evidence supporting a causality relationship in either direction between the two variables although two variables appeared to be co-integrated in the long-run for Bangladesh. On the one hand, a bi-directional causal relationship implies the importance of treating the two variables jointly in policy making to enhance the economic growth and development of a country. On the other hand, the lack of empirical evidences for a causality relationship running from government expenditure to national income is weakening the perception of particularly developing countries those who tend to consider the government as a major actor in enhancing national income.

Keywords: Causality, Granger, South Asia, VAR, VEC, Wagner's Law