Review of: "Contribution of Indirect Taxes on Goods to Economic Growth of Pakistan (1972-2022)"

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Potential competing interests: No potential competing interests to declare.

Authors consider potential cointegrating relationships among several types of Pakistani taxes and Pakistani GDP. The evidence favors cointegration. Econometric methods are adequate. The application of Johansen's ML cointegration method is appreciated. AIC selects the largest possible value (8), which may be too large. AIC is known to over-estimate in small samples, so application of corrected AIC (AICc) is recommended.

Details:

p.2 The impact of excise duties on output is not negative but positive (see equation (14)).

p.3 ”Whereas” (at the beginning of a sentence) should read ”By contrast.” Throughout, ”economic growth” is to be used without an article.

Literature: Another comparable source is: Korkmaz Yilgor Aksoy, ”The Impact of Direct and Indirect Taxes on the Growth of the Turkish Economy” (2019).

The Jarque-Bera statistic does not measure the distance between skewness and kurtosis but summarizes skewness and excess kurtosis.

p.8 We do not ”accept the alternate” but we reject the null.

p.8 The concept ”probability of causality” is not properly defined.

p.8 Often, the word ”stationary” is used, but the correct terminology would be ”stationarity.” For example, a ”stationary property” would be a property that is stationary, a rather odd idea. Authors mean ”stationarity property.”

p.8 A unit-root test cannot use a unit-root test.

p.8 The coefficient in equation (8) is γ_j, not γ_t.

p.9 A ”linear grouping” should be a ”linear combination.”

p.10 The formulae for the Johansen test do not make sense without any explanation of what λi means.

p.10 I think it is Δ log GDP, not just log GDP, in equation (13).

Tables on p.12, 14, 15: Too many decimal digits shown; four would suffice, definitely.

Tables on p.14, 15, 16: P-values, not ”probability.”

p.14: Have a unit root at the level and (not ”or”) are non-stationary. A unit root implies non-stationarity under general conditions, but not all non-stationary variables have unit roots.

p.16: d log GDP ? The notation ”d ” for first differences was not properly introduced. References: It would be far more convenient if items were arranged alphabetically.