Banco de la República | Colombia
Somos el banco central de Colombia

Some Univariate Time Series Properties of Output

Working Paper No. 100 Keep in mind
The series Working Papers on Economics is published by the Office for Economic Studies at the *Banco de la República* (Central Bank of *Colombia*). It contributes to the dissemination and promotion of the work by researchers from the institution. This series is indexed at Research Papers in Economics (RePEc).

On multiple occasions, these works have been the result of collaborative work with individuals from other national or international institutions. The works published are provisional, and their authors are fully responsible for the opinions expressed in them, as well as for possible mistakes. The opinions expressed herein are those of the authors and do not necessarily reflect the views of Banco de la República or its Board of Directors.

AUTHOR OR EDITOR Luis Eduardo Arango
This paper deals with the size of the random walk property of Colombia´s output in two periods 1925-1994 and 1950-1994. GDP and GDPPC were both found to be integrated of order one a result which is very well known. The sequences are highly persistent, specially in the period 1950-1994. The forecast error when an innovation of 1 percent enters into the economy is about 1.5 percent in the very long run, when GDP is considered. The response is about 1.3 percent in the case o f GDPPC, which seems to give support to the idea that population growth is a source of nonstationarity in some macroeconomic aggregates. For the larger sample (1925 - 1994) persistence is less. This result could cast some doubt on the method of estimation of GDP for the period 1925-1950. Finally, evidence of nonlinearity is found only in Hodrick-Prescott filtered variables dated between 1925 and 1994. This leaves open the question about whether the HP filter introduces nonlinearity in the high frequency variable that it generates.

Fuente: https://www.banrep.gov.co/en/borrador100