

# Expansions and contractions in Brazil, Colombia and Mexico: a view through non-linear models

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AUTHOR OR EDITOR Luis Eduardo Arango, Luis Fernando Melo

The study of the asymmetric behavior of macroeconomic variables over the business cycles phases has had a long tradition in economics. In this work we find evidence in favor of the hypothesis of having a STAR-type nonlinear asymmetric behavior of the economic activity, over the last two decades, in three Latin American countries: Brazil, Colombia, and Mexico. For Chile and Venezuela the null hypothesis of a linear process could not be rejected under the method placed by Granger and Teräsvirta (1993). Economic activity is proxied by monthly based industrial production indexes. Evidence of asymmetric behavior is also found according to the generalized impulse response functions analysis for the three countries. Key Words: real industrial production index, nonlinearities, STAR models, generalized impulse response function, high-density regions.

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