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Estimating the Exchange Rate Pass-Through: A Time-Varying Vector Auto-Regression with Residual Stochastic Volatility Approach

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Abstract

The adoption of a Time-Varying Vector Auto-Regression with residual Stochastic Volatility approach to address the state and time dependency of the exchange rate pass-through, ERPT, is proposed. This procedure is employed to estimate the size, duration and stability of the ERPT to flexible relative price changes in Colombia through a fairly simple Phillips curve. For this, the generalized impulse responses, i.e. pass-throughs, from different periods of time are compared. It was found that the ERPT is bigger and faster than previous stimates for broader price indexes. It was also also found that regardless of the existence of time-varying shock sizes, i.e. time varying standard deviations, the ERPT before full Inflation Targeting, IT, is marked and significantly larger before than during full IT, and also that the ERPT relates to real exchange rate volatility. The second results relates to the benefits derived from the adoption of full IT in this country. It was finally found that the output gap and flexible relative price change residual volatilities drop permanently and importantly at 1998Q3, emphasizing the role of the free float regime adoption in the success of IT in this country.

Fuente: https://www.banrep.gov.co/en/estimating-exchange-rate-pass-through-time-varying-vector-auto-regression-residual-stochastic