

The Effects of Foreign Exchange Intervention: Evidence from a Rule-Based Policy in Colombia

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Abstract: We investigate the effectiveness of foreign exchange interventions using the Colombian experience as a case study. Recent theoretical work emphasizes the importance of financial sector balance sheets and capital flows in determining the effects of currency interventions. We use a unique data set from the Colombian Central Bank comprised of tick by tick intervention and order book data, daily capital in- and outflow data, and balance sheet information of financial institutions. We use rule based foreign exchange interventions of the Colombian Central Bank to identify responses of price, stock and flow variables to policy shocks. At horizons of a few days, our empirical findings support sterilized exchange rate intervention effectiveness via a portfolio channel, as in Gabaix and Maggiori (2015). The exchange rate effects we see are short-lived. At horizons of a month or longer, capital flows originating from foreign investors restore the exchange rate back to its original level. Our findings also show that the effects of sterilized interventions are amplified by capital controls. A methodological contribution of the paper is to extend regression discontinuity designs to a time series environment and to show how these techniques can be used to identify and estimate non-linear impulse response functions.

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