Accounting for Persistence and Volatility of Good-level Real Exchange Rates: The Role of Sticky Information

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Abstract

Volatile and persistent real exchange rates are observed not only in aggregate series but also in the individual good level data. Kehoe and Midrigan (2007) recently showed that, under a standard assumption on nominal price stickiness, empirical frequencies of micro price adjustment cannot replicate the time-series properties of the law-of-one-price deviations. We extend their sticky price model by combining good specific price adjustment with information stickiness in the sense of Mankiw and Reis (2002). Under a reasonable assumption on the money growth process, we show that the model fully explains both persistence and volatility of the good-level real exchange rates. Furthermore, our framework allows for multiple cities within a country. Using a panel of U.S.-Canadian city pairs, we estimate a dynamic price adjustment process for each 165 individual goods. The empirical result suggests that the dispersion of average time of information update across goods is comparable to that of average time of price adjustment.

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