# Sources of real exchange rate fluctuations and distorted beliefs*

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**Abstract**

This paper extends the standard two-country sticky price model to study the implication of learning with distorted beliefs for sources of aggregate real exchange rate fluctuations. I assume that economic agents systematically misperceive that persistent monetary policy shocks cannot be directly observed due to transitory noise in the sense of Gourinchas and Tornell (2004). This misperception allows economic agents to solve the signal extraction problem about the shocks and this learning effect generates a hump-shaped response of real exchange rate to a monetary policy shock. The simulation results suggest that, under distorted beliefs, nominal shocks could replicate time-series properties of the real exchange rate data as well as real shocks, implying that nominal shocks can be the main driving force of real exchange rate fluctuations in contrast to the simulation results in Steinsson (2008). Thus, exploring how economic agents perceive about monetary policy shocks may be an important direction in understanding major sources of real exchange rate fluctuations.

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