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The Puzzling Change in the International Transmission of U.S. Macroeconomic Policy Shocks

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We demonstrate a dramatic change over time in the international transmission of US monetary policy shocks. International spillovers from US interest rate policy have had a different nature since the 1990s than they did in post-Bretton Woods period of 1973-1990. Our analysis is based on the a panel of 21 high income and emerging market economies. Prior to the 1990s, the US dollar appreciated and industrial production outside the US declined in response to increases in the US Federal Funds Rate, as predicted by textbook open economy models. The past decades have seen a shift, whereby increases in US interest rates depreciate the US dollar but stimulate the rest of the world economy. Results are robust to all the main methods used in the existing literature to evaluate the effects of US monetary policy. In a difference in differences specification, we also show that the dollar depreciated more and world industrial production increased by more post 1990 than it did in the earlier period.

We sketch a simple theory of exchange rate determination in face of interest-elastic risk aversion that rationalizes these findings. The model builds on the framework of Gabaix and Maggiori (2015), which emphasized the role of financial intermediaries in affecting exchange rates. Many commentators have observed that investor's risk appetite may be affected by interest rates. Accordingly, we augment this model with endogenous financier risk aversion that is decreasing in the US interest rate. This leads to lower risk appetite and less intermediation capacity when US interest rates go up. When the US is running a current account deficit, the financial sector is long on dollar assets so that lower risk aversion leads to lower dollar demand and a dollar depreciation. This force competes with the standard uncovered interest rate parity force that leads to a dollar appreciation when US interest rates rise.

Several theoretical comparative statics and empirical exercises highlight plausible reasons for the puzzling change circa 1990. First, this is around the time that the US began running persistent current account deficit, which would strengthen the risk-aversion channel at the centre of our theory. Second, the increased financialization of the international monetary system would make the theoretical channels explored in this study more prominent. Indeed, we find that the puzzling change occurs for financially open economies, but not for more financially closed ones. Finally, the dollar has become increasingly important in the international monetary system, a phenomenon that has accelerated since 1990. We show theoretically that an exogenous increase in demand for dollars (e.g. by foreign central banks) would strengthen the dollar depreciation channel following a US interest rate hike. Our findings hold only for countries that have large dollar assets relative to their GDP, consistent with our theoretical findings.