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Does exchange rate volatility hurt domestic consumption? Evidence from emerging economies ☆

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ABSTRACT

Inflation volatility is said to reduce consumption by introducing more uncertainty to consumers who try to allocate their budget toward consumption and saving. Since exchange rate volatility contributes to inflation volatility, it is shown to have direct negative effect on consumption. Previous research established the link between exchange rate volatility and consumption using data from industrial countries. In this paper we provide a counter part by using data from 12 emerging economies. We find that while exchange rate uncertainty has short-run effects on domestic consumption of almost all countries, the short-run effects last into the long run only in half of the countries. Besides theoretical modeling of consumption behavior, the results also have important implications for business cycles and economic growth in emerging economies.

☆ Valuable comments of an anonymous referee are greatly appreciated. Remaining errors, however, are ours.
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1. Introduction

Since consumption is the largest component of the aggregate demand, identifying and understanding its determinants is as important today as it has been in the past. Traditional variables such as different measures of income, interest rate, etc. have received enough attention in the literature. With globalization and tendencies of every country to open for international trade and to ripe the benefits of international markets, the exchange rate becomes a major player not just affecting a country's trade flows but also other macroeconomic variables such as domestic consumption spending. Alexander (1952) was perhaps the first to introduce the notion of the exchange rate serving as one of the key determinants of domestic consumption. The link was through the inflationary effects of devaluation or currency depreciation. He argued that if there are long adjustment lags in the relation between wages and inflation, an increase in wages falls behind inflationary effects of devaluation, and consumption of workers would fall and that of producers would rise. However, since workers have a high marginal propensity to consume (MPC) and producers have a low MPC, aggregate consumption is expected to fall.[2]

Surprisingly, empirical papers on the link between the exchange rate and domestic consumption are limited. One way of testing Alexander's conjecture is to assess the impact of currency depreciation on the wages of skilled and unskilled workers. That is exactly what Bahmani-Oskooee and Hajilee (2010) do by estimating wage equations for 18 countries. Their results show that currency depreciation lowers the unskilled labor wages in six countries and boosts skilled labor wages in seven countries, supporting Alexander's original argument. In another study Bahmani-Oskooee and Hajilee (2012) adhere to a direct approach by including the exchange rate in consumption function as another determinant. They then estimate their new consumption function by using Pesaran et al.'s (2001) bounds testing approach which allows short-run dynamics in estimating long-run effects. By estimating their model for each of the 50 countries in their sample, they found short-run effects of currency depreciation on consumption in 37 countries. However, the long-run significant effects were found only in 24 countries, again supporting Alexander.

Since exchange rate changes can affect consumption, clearly fluctuations in the exchange rate which are sign of uncertainty and volatility could have implication on consumption. Indeed, within a theoretical framework, Obstfeld and Rogoff (1998) argued that exchange rate volatility can affect households and firms negatively through direct and indirect channels. The direct channel assumes that households and firms dislike exchange rate fluctuations and hence exchange rate volatility can have undesirable effects on their consumption and leisure decisions. They argue that trade could fall due to exchange rate volatility and this could result in a decline in production or income at home and foreign country and eventually in aggregate consumption. According to the indirect channel, in order to hedge the risks of future exchange rate fluctuations, firms may set higher prices or charge a risk premium, and higher prices lower the aggregate consumption. Bahmani-Oskooee and Xi (2012) provide an empirical counterpart by estimating a consumption function that included a measure of income, interest rate, the exchange rate itself and a measure of exchange rate volatility. They estimated the model by using quarterly data from the U.S., Japan, and Canada and Pesaran et al.'s (2001) bounds testing approach. Using a GARCH-based measure of exchange rate volatility they find support for Obstfeld and Rogoff (1998) argument. While exchange rate uncertainty had negative impact on consumption in Canada, it had positive impact in the results for the U.S. and Japan. To provide additional support Bahmani-Oskooee and Xi (2012) expanded the list of countries to 17. Due to lack of quarterly data, they adhered to annual data and since annual data is not subject to ARCH effect, they measured exchange rate volatility for each year by standard deviation of the monthly exchange rates within each year. While they found short-run effects in 12 countries, the short-run effects lasted into the long run in nine cases. While the long-run results in the case of Canada and Japan were consistent with Bahmani-Oskooee and Xi (2011–2012), in the results for the U.S. the long-run effects of exchange rate volatility were significantly negative rather than positive.

[2] See Obstfeld (1982), Shapiro (1984), Blinder and Deaton (1985), Kugler (1985), Campbell and Mankiw (1989), Villagomez (1994), Jin (1995), and Hall et al. (1997) for other consumption-related issues.