EXCHANGE RATE PASS-THROUGH INTO DOMESTIC INFLATION IN ASIAN ECONOMIES

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(Draft Version)

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Abstract:

This paper explores the patterns of exchange rate pass-through (EPT) into domestic inflation in the East Asia economies. In our empirical analysis framework, we emphasized the role of inflation environment on the EPT. At first, we use the regression analysis to examine the interrelationship between exchange rate and inflation. We find strong evidence that the extent of exchange rate pass-through in most East Asia economies will be constrained by their inflation environments. Secondly, to examine the intrinsic interrelationship among our observed variables, we introduce a vector autoregression method. We found that the initial impact of relative exchange rate of home currency to Japanese YEN on import price or partner export price is unexceptionally positive, while the shock effect of USXPI in all the countries is insignificant, which suggests the greater market power of Japanese exporters than US exporters in this area.

The findings above have a number of important policy implications in the East Asia economies. One is that the extent of EPT will be reduced under the credible inflation environment. This dependence would make it more valuable for a country to implement a policy targeting for a low inflation rate. Another implication is that the economic interdependence of countries also plays an important role in EPT. Therefore, for high dependence of countries, the stable exchange rate relative to the partner’s currency would be more important.

JEL Classifications: E31, F41, F31

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Recently many researches on the exchange rate pass-through suggest that a low inflation environment can constraint the pricing power of international firms in domestic market. It means that in a low inflation environment, import prices react less to exchange rate movements than in a high inflation economy. Therefore, the anti-inflation monetary policies and foreign exchange policies can be considered as an important factor behind the reduced pass-through to domestic inflation. This interesting view has been at first put forth by John Taylor(2000), who argues that exchange rate pass-through may be endogenous to a country’s inflation performance. In order to explain the relationship between inflation and exchange rate pass-through, he used a simple microeconomic model of firm behavior based on staggered price setting and monopolistic competition. It says that to a firm who decides on how much to adjust its price responding to the movement of exchange rate, low inflation will be associated with less persistent changes in costs and the prices at other firms in the economy, therefore the lower persistence will finally result in smaller exchange rate pass-through. His empirical analysis based on U.S. data supports his model and explained the low exchange rate pass-through seen in the 90s in the most industrialized countries.

After the publication of Taylor’s pioneer paper, there has been a growing interest in examining the relationship between exchange rate pass-through and inflation mainly based on more strict empirical analysis. McCarthya (2000) used a VAR model to analysis the pass-through of external factors---the exchange rate and import price---to domestic inflation for several industrialized economies. His research results based on impulse response function for eight developed countries indicate that exchange rate shocks have modest effects on domestic inflation, while import price shocks appear to have a larger effect. Furthermore, he argues that pass-through appears to be larger in countries with a higher import share of domestic demand as well as in countries with more persistent exchange rates and import prices.

Campa and Goldberg (2000) have provided cross-country, time-series, and industry-specific evidence on the exchange rate

pass-through into import prices. Although they also argues that higher inflation and exchange rate volatility are associated with higher exchange rate pass-through into import, the implication of his model emphasizes that the price behavior of foreign firms may not be strongly related to the home inflationary environment. In their paper, microeconomic factors related to the composition of imports have a much greater effect on the exchange rate pass-through.

Choudhri, Ehsan U. and Dalia S.hakura (2001) explore an open macroeconomic model on exchange rate pass-through, which emphasizes the role of price inertia and expectations. An important policy implication of his model is that the dependence of the exchange rate pass-through on the inflation regime should be taken into account in designing monetary policy rules. This dependency would make it easier for a country to implement a policy targeting for a low inflation rate.

In order to explore the characteristics of exchange rate pass-through in the East Asian economy, this paper will focus on two problems: at first, we examine whether the inflation environment affects the exchange rate pass-through in this area. At second, we analyze how the inflation environment, or fluctuation of exchange rates influences the current inflation over time.

Based on above partial equilibrium analysis, it may be argued that Taylor’s hypothesis also works well in most East Asian economies as in industrial countries, but the external impact on domestic inflation form Japan may be significantly stronger than that from U.S. The domestic conditions will also to some extent affect the patterns of exchange rate pass-through.

The rest of this paper is organized as follows: first, the literatures on pass-through. Second, a framework of exchange rate pass-through. Third, data for the empirical analysis. Forth, results of regression analysis. Fifth, results of VAR. Sixth, implication and conclusion.

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