

# The Taxonomy of Exchange Rate Exposure by Dr. Somjin Sornpaisarn

## Abstract

Recent empirical researches on exchange rate exposures have encountered the *direction puzzle* and *insignificance puzzle*. The *direction puzzle* refers to the finding that the depreciation of local currency hurts net-exporters in studies utilizing Adler and Dumas (1984) approach to measure exchange rate exposure. The *insignificance puzzle* refers to the failures of studies applying Jorion (1990) approach to find significant exchange rate exposure for firms even though the firms have high degree of foreign activities. This study proposed a theoretical model of exchange rate exposure based on a new perspective that exchange rate and stock return are both endogenous variables being determined by the same set of fundamental variables. An empirical model, which measures and decomposes exchange rate exposure into components according to the fundamental sources, provides explanations for the puzzles. The fact that depreciation is observed together with poor performance of net-exporters (*direction puzzle*) is mainly attributable to the reaction of stock return and exchange rate to the shocks in stock market portfolio and income. The fact that components of exposure associated with shocks to fundamental variables besides the stock market portfolio are relatively weak is responsible for the *insignificance puzzle*.

The theoretical model provides the insight that the firm can limit its exposure by designing its revenue and cost characteristics to minimize its foreign-cashflow and domestic-cashflow gaps or by selectively involving only with the tradable products and inputs. The empirical finding that the shock in the stock market portfolio is the dominant source of exchange rate exposure points out that hedging can be done effectively via the stock market index derivatives. The attributions of exchange rate exposure into its sources provide an important information for government authorities for making decision on strategic policies on exchange rate.