

# Asymmetric Exchange Rate Pass-Through in Japanese Exports: Application of the Threshold Vector Autoregressive Model

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This paper employs a threshold vector autoregressive (TVAR) model to analyze the asymmetric behavior of exchange rate pass-through (ERPT) or pricing-to-market (PTM) in Japanese exports between the yen appreciation and depreciation regimes. Exporters typically set the export price and quantity assuming their own reference (break-even) exchange rate that is periodically revised based on the information on the past and expected future movements of exchange rates. This paper develops a new approach to the exporter's reference exchange rate by estimating the time-varying threshold based on the exchange rate level. Employing the estimated time-varying reference exchange rate as well as the industry-breakdown data on export prices, this paper first distinguishes between yen appreciation and depreciation regimes for each industry. Given such an industry-specific difference in exchange rate regimes, this paper investigates whether the Japanese exporter's pricing strategy is regime-dependent, that is, whether the pricing strategy differs not only between yen appreciation and depreciation regimes but also over time. It is found that the degree of ERPT (PTM) is smaller (larger) in the yen depreciation regime up to the end of the 1990s but becomes larger (smaller) in 2000s. An increase (decline) in ERPT (PTM) in the yen depreciation regime suggests that Japanese exporters tend to lower the yen-based export price and fail to fully exploit foreign exchange gain in response to the yen depreciation, likely due to the deterioration in export competitiveness as well as growing intra-firm trade.

JEL Classification: C22, D22, E31, F31

Keywords: exchange rate pass-through (ERPT), pricing-to-market (PTM), threshold vector autoregressive model, Japanese exports, yen appreciation and depreciation regimes, time-varying threshold