

The Influence of Intra-Industry Trade on Export Sensitivity to Exchange Rates

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Abstract

Exchange rates play a key role in the literature on the determinants of trade, and this role is currently receiving a great deal of attention in the context of global imbalances. While in the 1980s, imbalances between Japan and the United States have directed the spotlight at the yen, more recently it has been the imbalances between China and the United States, which have led to calls for a revaluation of yuan. Generally, it is assumed that the appreciation of an exporter's currency will increase the relative price of exports and hence is expected to reduce exports. Focusing on the industry-specific sensitivity of exports to exchange rates in the context of intra-industry trade (IIT), it is, to the author's best knowledge, the first study to theoretically and empirically investigate this relationship. By definition, IIT is the exchange of goods in the same product category and it is assumed here that IIT consists of trade in differentiated products. It is further assumed that as product differentiation increases, IIT deepens and, at the same time, the elasticity of substitution between products becomes smaller. Thus, it is assumed that more IIT implies a smaller elasticity of substitution between products and vice versa. Following Dixit and Stiglitz (1977), the model presented in this paper assumes trade in differentiated products in industry z under monopolistic competition between a pair of countries. The model presented in this paper suggests that differences in production costs as well as a smaller elasticity of substitution have an influence on IIT. The empirical analysis investigates cross-country industry-panels for the bilateral trade of notable trading pairs, that is, trade between eight East Asian countries (including China), Japan, and the United States on the one hand with the EU, Japan, Asia, and North America on the other. The six manufacturing industries chosen in this paper vary regarding the extent of IIT. Furthermore, unlike other studies that use real trade values, the present paper uses export quantity indices to measure real exports in order to determine the real effect of exchange rate movements on exports. Since it is assumed that the price and quantity of exports do not necessarily respond in the same way to exchange rate movements, it is more appropriate to measure "real" exports in quantities. The empirical results confirm that the exchange rate sensitivity declines as the extent of IIT increases as a result of a lower elasticity of substitution among differentiated products. An obvious policy implication of the findings is that the effectiveness of exchange rate adjustments as a policy tool for addressing trade imbalances diminishes when there is substantial intra-industry trade (IIT).

Keywords: Trade, Exchange rates, Intra-industry trade

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