Impacts of Oil shocks on Exchange Rates and Macroeconomic Variables: A Multi-country Analysis

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Abstract

This paper provides a quantitative assessment of the relative importance of exogenous shocks related to oil price determination on countries' exchange rates and outputs within the same framework of the structural vector autoregression (VAR) model. Since we are interested in the effect of oil price changes on energy exporters and importers, we chose Australia and Japan as sample countries. We assume four structural shocks: (i) an oil supply shock, (ii) global demand shock, (iii) oil price fluctuations not related to supply and demand, and (iv) pure exchange rate fluctuations not related to other structural shocks. Differing responses to structural shocks explain why these two countries' currencies are negatively correlated, while pure exchange rate shocks are the main sources of exchange rate volatilities. In explaining macro variables, we find evidence that global demand shocks and non-fundamental oil price fluctuations have a strong impact on GDP and export growth, while pure exchange rate shocks are relatively unimportant in explaining Japan's macroeconomic variables.

JEL: F31, F41, Q43
Keywords: oil prices; exchange rates; exports; structural VAR

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