



Price Volatility and Demand for Oil: A Comparative Analysis of Developed and Developing Countries

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Abstract During the past three decades the global oil market has seen significant price volatility. Literature to date has not analysed the cross-country effect of the recent episode of price instability. Previous studies have either not considered this period or have not utilised panel data techniques and therefore have not provided a comparative analysis of developed and developing countries. This paper explores the income and price elasticities between these two country groups and discusses the economic implication of the results. We use a panel data analysis accounting for income and price asymmetry and apply the dynamic fixed-effects methodology to separate panels for developed and developing countries for the period 1980-2012. Sixteen countries are included in this analysis which account for over 65% of total global oil consumption. A particular focus is on the income and substitution effects. The results indicate heterogeneous response to oil price shocks. Developing countries have an income effect 6.3 times stronger than developed countries. The substitution effect in developed countries is 2.1 times stronger than in developing countries. Policy recommendations include the pursuing of oil-efficiency improving technology, and ensuring that regional consumption pattern variations are considered in policy formation.

Keywords Oil price, oil demand, income effect, price effect

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