OIL PRICE SHOCKS AND LONG RUN PRICE AND IMPORT DEMAND BEHAVIOR

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Abstract. The effect which the oil price time series has on the long run properties of Vector AutoRegressive (VAR) models for price levels and import demand is investigated. As the oil price variable is assumed to be weakly exogenous for the long run parameters, a cointegration testing procedure allowing for weakly exogenous variables is developed using a LU decomposition of the long run multiplier matrix. The likelihood based cointegration test statistics, Wald, Likelihood Ratio and Lagrange Multiplier, are constructed and their limiting distributions derived. Using these tests, we find that incorporating the oil price in a model for the domestic or import price level of seven industrialized countries decreases the long run memory of the inflation rate. Second, we find that the results for import demand can be classified with respect to the oil importing or exporting status of the specific country. The result for Japan is typical as its import price is not influenced by GNP in the long run, which is the case for all other countries.

Key words and phrases: Cointegration, weak exogeneity, import demand, oil price behaviour.