The Asymmetric Effects of Oil Price Shocks on the Canadian Economy

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Abstract

A threshold vector autoregression (VAR) is estimated to study the effects of oil price shocks on Canadian output and price level. While much of the literature has investigated potential asymmetric effects of positive and negative oil price shocks within a linear VAR, we do so within a nonlinear VAR. Further, we extend the analysis to consider the correlation between asymmetries associated with the business cycle phase and size/sign asymmetries. Positive oil price shocks are found to have a stronger effect on output than negative oil price shocks. This asymmetry is significant in recessions, but lessened during expansions. The results also suggest that the reduction in inflation due to a negative oil price shock is larger than the increase in inflation following a positive oil price shock, especially during periods of low output growth. Yet, neither inflation nor output growth seems to vary disproportionately with the size of the oil price shock. In general, the results are robust to the ordering of the variables in the VAR process and to the time window over which the net oil price change is computed.

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