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Authors: Robert J. Myers, Stanley R. Johnson, Michael Helmar, Harry Baumes

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Long-Run and Short-Run Relationships between Oil Prices, Producer Prices, and Consumer Prices: What Can We Learn from a Permanent-Transitory Decomposition?

By

Robert J. Myers[a*], Stanley R. Johnson[b], Michael Helmar[c], Harry Baumes[d]

[a] Department of Agricultural, Food, and Resource Economics, Michigan State University
[b] National Center for Food and Agricultural Policy and College of Agriculture, Biotechnology, and Natural Resources, University of Nevada, Reno
[c] University Center for Economic Development, University of Nevada, Reno
[d] Office of Energy Policy and New Uses, U.S. Department of Agriculture

[*]Corresponding author

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Abstract:

We use a permanent-transitory decomposition to provide new econometric evidence on long-run and short-run relationships between oil prices, producer prices and consumer prices. Results support cointegration and suggest a single common I(1) factor driving all three variables. Impulse responses to a permanent shock to the common factor indicate an important long-run relationship between oil prices, producer prices, and consumer prices. Impulse responses to a transitory oil price shock show no consumer price index response and only weak evidence of a short-run response in the producer price index. Hence, the conclusion is that oil price shocks have to be perceived as permanent before there is a strong link to consumer prices. Policy focused on ameliorating the effects of oil price shocks should pay close attention to whether shocks are permanent or transitory. Conclusions are robust to alternative measures of consumer prices and over different sub-samples of the data, although there is some evidence that the cointegration relationships disappear in the latter part of the sample.

Highlights

- A permanent-transitory decomposition to applied to oil, producer, and consumer prices.
- Evidence supports an important long-run relationship but no short-run relationship.