

Commodity Prices and the Business Cycle in resource-dependent Economies

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Casper Engelen, Matthias Hagen & Nikolas Kuschnig

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Gubler and Hertweck (2013) evaluate the relative importance of commodity price shocks in the United States.

- 9-dimensional SVAR
- Identify commodity price via short-run restrictions
 - Commodity prices only react to lagged impulses
 - Based on Kilian and Vega (2011)

Mallick and Sousa (2013) assess the transmission of monetary policy and the impact of commodity price fluctuations on BRICS economies.

- Bayesian SVAR, SVAR & Panel VAR
- BVAR ordering in three groups
 - Monetary policy instrument
 - Variables that react with a lag
 - Variables that adjust contemporaneously

Kilian and Vega (2011) propose a formal test of the hypothesis that energy prices, i.e. oil prices, are predetermined with respect to US macroeconomic aggregates. They find **no compelling evidence of feedback at daily or monthly horizons**. They conclude that short-term restrictions as identification strategy are thus justified.

Based on these findings Roch (2017) argues that domestic variables do not affect ToT contemporaneously.

Further search for data:

- Monetary Policy Rates¹
 - Missing values filled with short-term Interbank rate²
- Stock Indices³
- Unemployment⁴
- Money Supply⁵
- Exchange Rates⁶

¹National Central Banks, FRED

²for Australia & Norway, OECD

³Datastream

⁴OECD, National Statistic Bureaus, Datastream

⁵OECD, FRED, Datastream

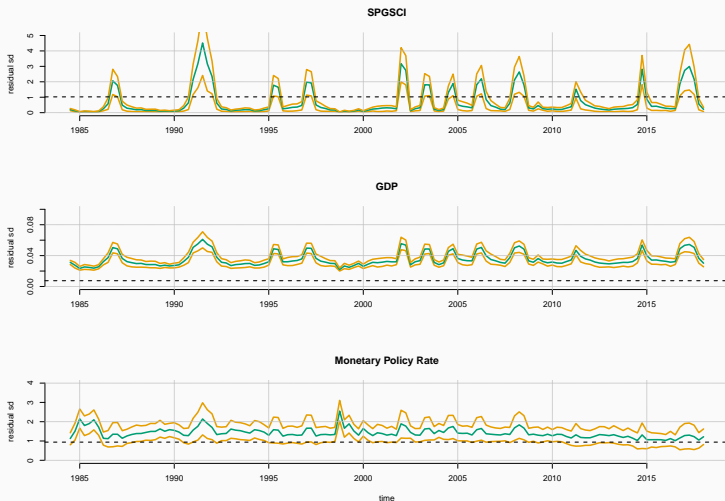
⁶IMF

Work on data transformation:

- Quarterly frequency
 - Last Value
 - Quarterly Mean
- Achieving stationarity
 - Log-differences
 - Hodrick-Prescott Filter
- Testing
 - Augmented Dickey-Fuller Test
 - (P)ACF, etc.

Data, Observations

Residual standard deviations in a VAR for South Africa, that allows for time drift & and stochastic volatility, OLS as benchmark.



Variables

Commodities

Output (GDP)

Inflation

Unemployment

Trade (Exports and Imports)

Money Supply (M3, M2)

Monetary Policy Rate

10Y Government Bonds

Equity Prices

References

Gubler, Matthias, and Matthias S Hertweck. 2013. "Commodity Price Shocks and the Business Cycle: Structural Evidence for the Us." *Journal of International Money and Finance* 37. Elsevier: 324–52.

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Mallick, Sushanta K, and Ricardo M Sousa. 2013. "Commodity Prices, Inflationary Pressures, and Monetary Policy: Evidence from Brics Economies." *Open Economies Review* 24 (4). Springer: 677–94.

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