

Discussion of “Not All Oil Price Shocks Are Alike”

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Summary of the paper

- “Not all oil price shocks are alike”
 - Supply \leftrightarrow demand
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 - Explains ‘why the 2000s are so different from the 1970s’ (Blanchard and Gali 2007)

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 - Monthly data 1973(?)–2006
 - Short-run restrictions
 - Variables: oil price, oil production, global economic activity
- Identifying restrictions

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① Oil supply shocks

All shocks that affect oil production within a month

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 - 2 **'Aggregate' demand shocks**

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All remaining shocks that affect global activity within a month
 - 3 **Oil-specific demand shocks**

All other shocks to the price of oil

Identifying supply (vs demand) shocks

- All shocks that affect oil production within a month
 - *“Crude oil supply is assumed not to respond to innovations to the demand for oil within the same month.”*
 - *“oil-producing countries will be slow to respond to demand shocks, given the costs of adjusting oil production and the uncertainty about the state of the crude oil market.”*
- Plausible, no obvious alternatives
- Potential problems:

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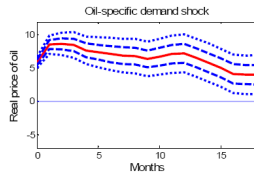
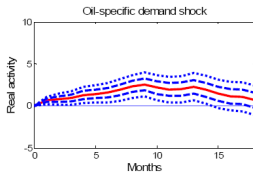
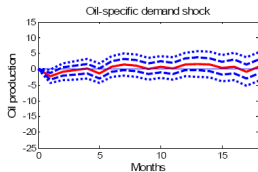
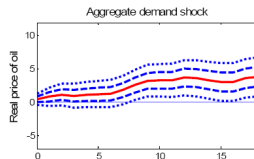
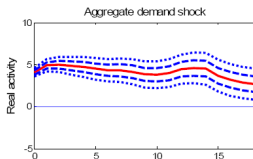
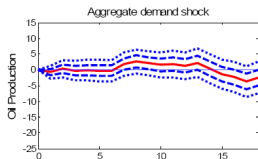
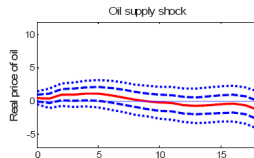
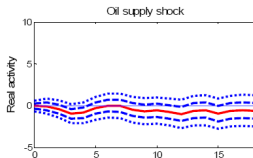
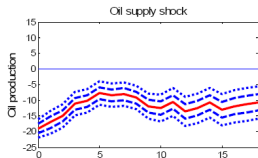
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- Does it work?

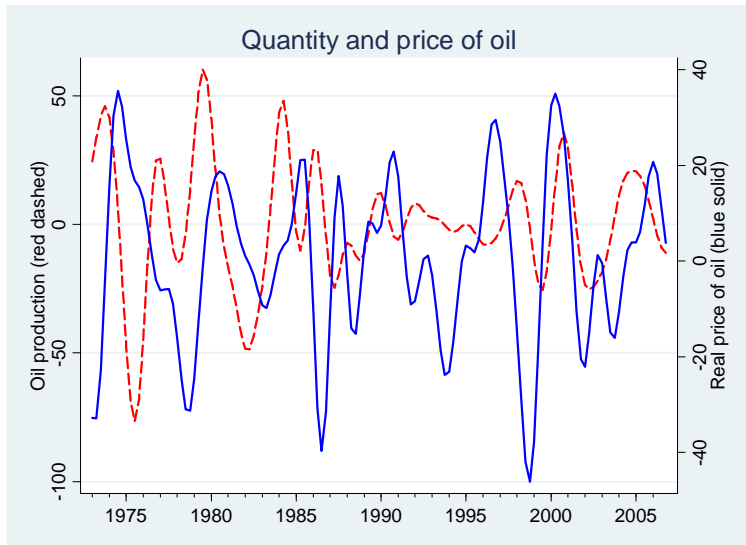
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Identifying supply (vs demand) shocks

- Negative supply shock
 - Production decreases (by construction)
 - Price increases very little, eventually decreases
- Positive demand shock
 - Production almost not affected (partly by construction)
 - Price increases as expected
- Most price fluctuations from oil-specific demand shocks

Identifying supply (vs demand) shocks - sign restrictions



Identifying 'aggregate' (vs oil-specific) demand shocks

- All demand shocks that affect global activity within a month
 - *"increases in the real price of oil driven by shocks that are specific to the oil market will not lower global real economic activity immediately, but with a delay of at least a month."*
- Plausible, no obvious alternatives
- New, monthly measure for global economic activity
 - Average dry cargo freight rate for various commodities
 - Detrended to control for technological advances in shipping
- Potential problems:

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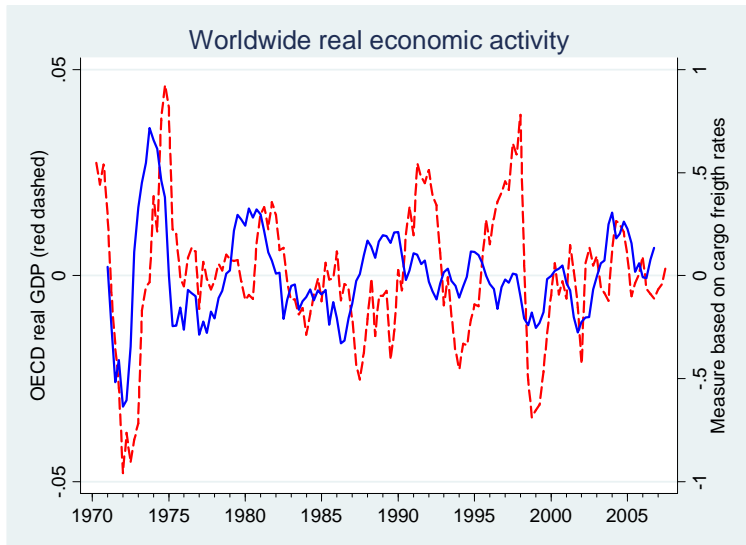
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- Compare to other measures

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Interpreting the residual

- Oil-specific demand shocks
 - Not supply & not overall demand \Rightarrow oil-specific demand
 - *“will reflect in particular fluctuations in precautionary demand for oil driven by uncertainty about the availability of future oil supplies.”*
- Precautionary demand interpretation
 - “no other plausible candidates”
 - “large impact effect on oil price \Rightarrow expectational shock”
 - “timing consistent with exogenous events that affect uncertainty”
- Direct evidence?

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- Direct evidence?
 - Expenditure share oil in production function

- Important question
- Provocative answers
- Not (yet) convincing
 - Are there (predictable) supply shocks that affect other variables before production?
 - Are there aggregate demand shocks that do not immediately affect global activity?