
Rapidly Raising Energy Prices: Does the Driver of the Energy Market Imbalance Matter?

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Introduction

- The paper focuses on the effects of higher energy prices
- Not oil shocks (or oil price shocks) per se!
 - Sources of shocks also analysed
- The model (variant of GEM) is rich enough
- Distinction between sources of shock leads to useful insights

Introduction (II)

- The paper first analyses oil shocks
 - Shocks are structural
- The paper then analyses alternatives to the basic scenario
 - Alternative monetary policy
 - Alternative wage behaviour
- The paper, finally, analyses alternative shocks that increase oil prices

Introduction (III)

- The paper is insightful because of:
 - Peg of exercise to recent facts
 - Richness of model
 - Discussion of sources of shocks
 - Discussion of differentiated effects according to source

A Framework for Oil Price Effects

- Crude oil is only part of the story
- Refined oil (gasoline, etc.) is a domestic good
- Crude oil is used to produce refined oil
- Refined oil is then:
 - Sold to other firms in the economy
 - Sold to final-demand agents (e.g. consumers)

A Framework for Oil Price Effects (II)

- In the data (for EA!):
 - Crude oil is tradable
 - Refined oil less so
- Contrary in model: *land* plays role of crude oil
- The transmission has domestic elements
- The domestic energy sector matters!

Oil and Prices in the EA

- Transmission of shocks fast along energy production
- Significant reduction of volatility
- Small impacts on non-energy prices

Euro Area Data

Business Cycle Statistics for the period 1990:02 to 2005:04
Monthly Inflation Rates

Benchmark

Oil Brent Price

Std. Dev. (*100)
1.8780

Variables

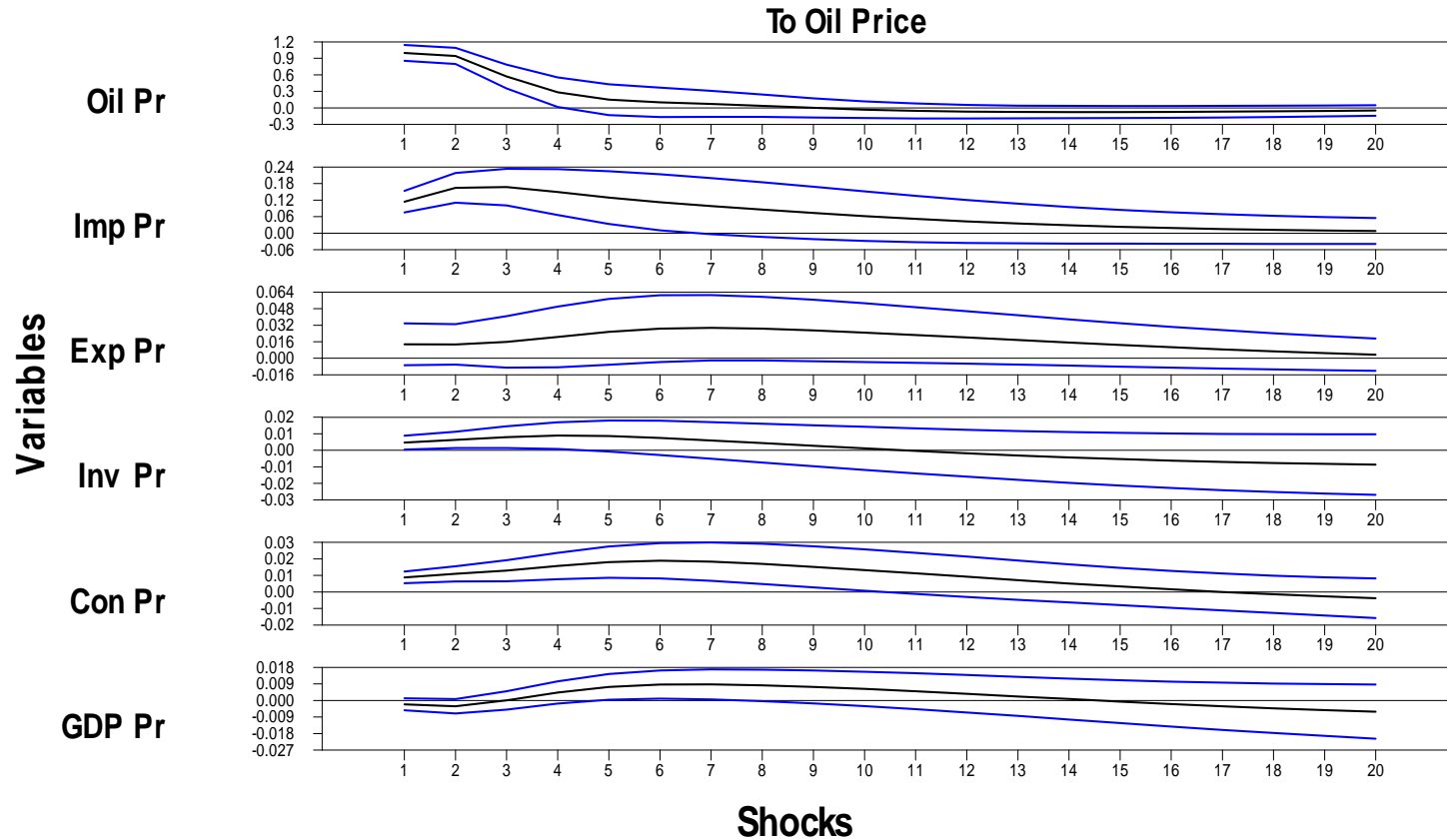
Variables	Relative Std. Dev.	Contemp Correl.
Oil Imports Defl.	0.994	0.97
Imports Defl.	0.211	0.73
PPI Energy	0.317	0.83
PPI Consumer Goods	0.024	-0.03
PPI Capital Goods	0.014	-0.16
PPI Interm. Goods	0.085	0.25
PPI Total Ind.	0.056	0.42
HICP Energy	0.127	0.73
HICP Ind. Goods	0.029	0.60
HICP Goods	0.019	0.36
HICP Services	0.014	-0.09
HICP	0.012	0.33

Oil and Prices in the EA (II)

- Transmission in GDP prices also clear:
 - Import prices heavily affected on impact
 - Consumer prices 2nd most affected on impact
 - Investment not affected on impact
 - GDP deflator drops on impact

Oil and Prices in the EA (II)

Impulse Response Function



Some Details

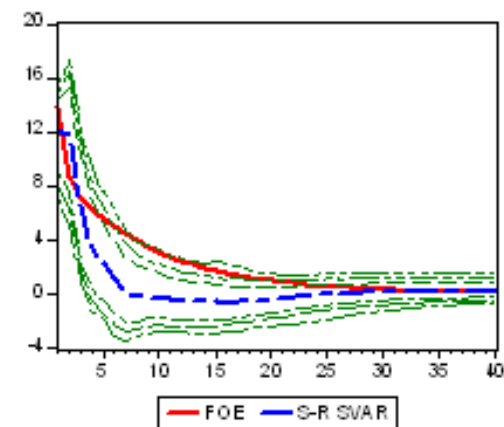
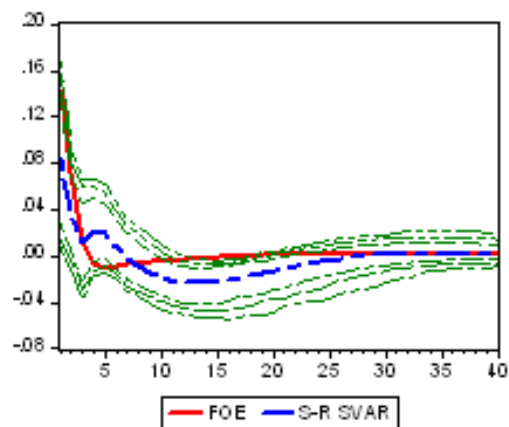
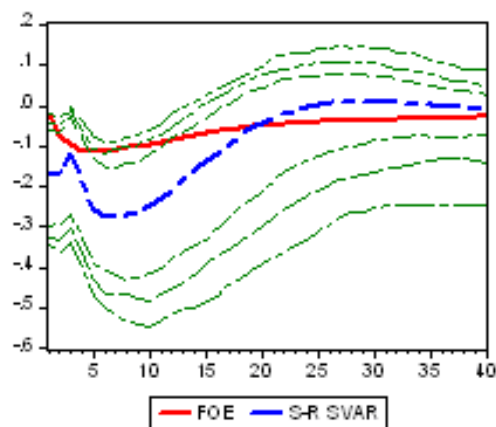
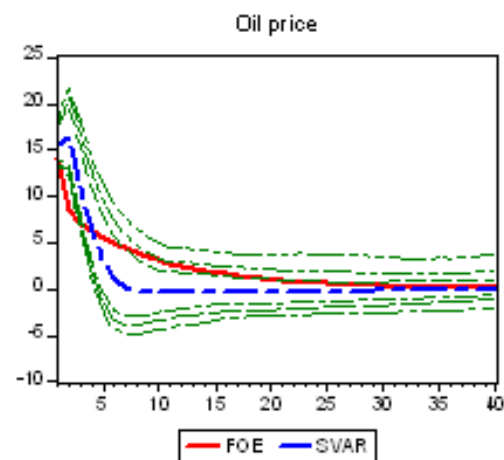
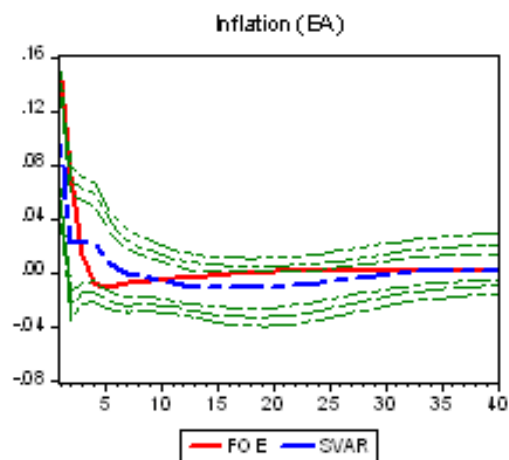
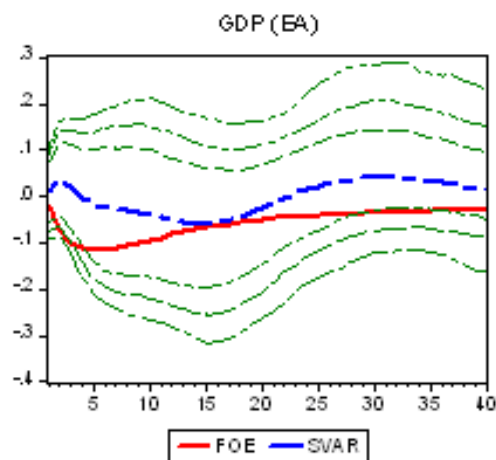
■ Detail I:

- ❑ Energy as consumed and as imported is not the same good!
- ❑ Model lacks proper account for other costs in producing energy (e.g. refined oil vs. crude oil)

■ Detail II:

- ❑ Oil needs to have low elasticity
- ❑ If not, oil price is not sufficiently volatile
- ❑ Use of Cobb-Douglass prod. function troubling!

Some Details (II)



Some Details (III)

- Detail III:
 - Expectations for oil prices reasonable assumption
 - But policy reaction much more debatable!
- Other details:
 - Tax structure seems distorting!
 - Model lacks proper account for other costs in producing energy (e.g. refined oil vs. crude oil)
 - More on definition of flexible-price simulation