

Discussion of

**‘Do financial investors destabilize the oil price’ by
M. Lombardi and I. Van Robays**

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Overall assessment

- Innovative paper, very well written.
- Policy-relevant result: Non-fundamental financial shocks destabilize the oil price, but overall contribution small (similar result as in other papers) → no strong need for regulating oil futures mkts.
- Comments / suggestions for future work
 - I Inventories and speculation
 - II Role of monetary policy
 - Minor comments:
 - cointegration btw. spot and futures prices
 - additional literature consistent with LvR

Comment I: Inventories and speculation

- What is the role played by inventories after a destabilizing financial shock?
- People have argued that much of the oil price increase btw. 2003 and 2008 was due to speculation. On the other hand, no increase in inventories was observed.
- Puzzle?

Comment I: Inventories and speculation cont.

- Inventories seem to be important transmission channel. Kilian-Murphy and Juvenal-Petrella identify speculation shock by restricting inventories to rise.
- LvR find no significant reaction of inventories after destabilizing financial (and all other) shocks.

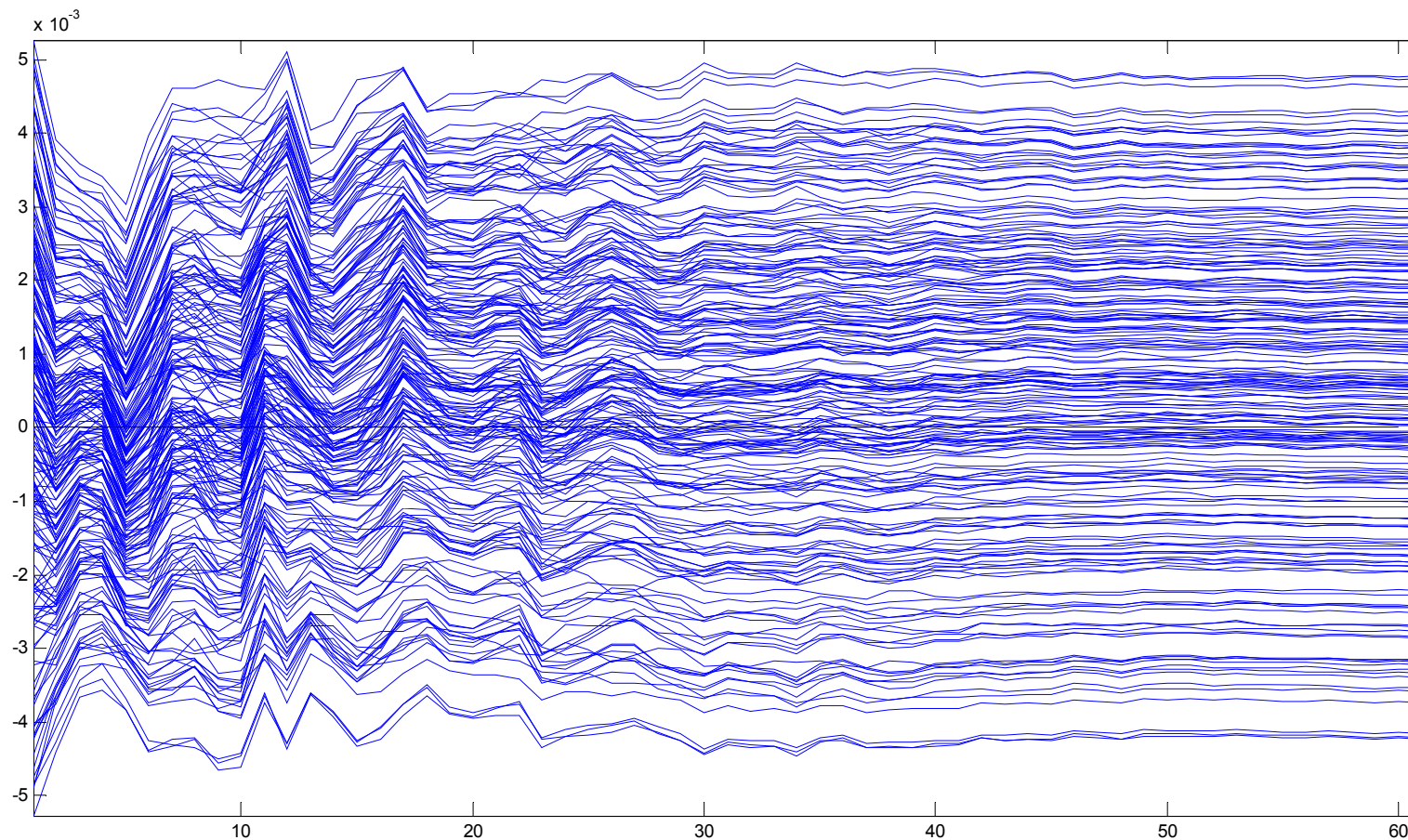
	Sign restrictions						Medium run contribution to	
	Qoil	Yw	Poil	I	Foil	s	oil price	inventories
Kilian-Murphy	+	-	+	+			9%	41%
Juvenal-Petrella	-		+	+			9%	8%
LvR					+	+	10%	4%

Comment I: Inventories and speculation cont.

- LvR argue that
- (1) inventory data are poor.
 - Omitted variables bias and having one „residual shock“ vs. introducing measurement error
- (2) low price elasticity of oil demand can explain small reaction of inventories (Hamilton).
 - Kilian-Murphy find high elasticity in more sophisticated model.
 - Many of LvR's models imply a **decline** in inventories.
 - Possible explanation: If fundamentalists realize that oil prices are overvalued, they expect a future decline and lower their inv. to sell at high price now.

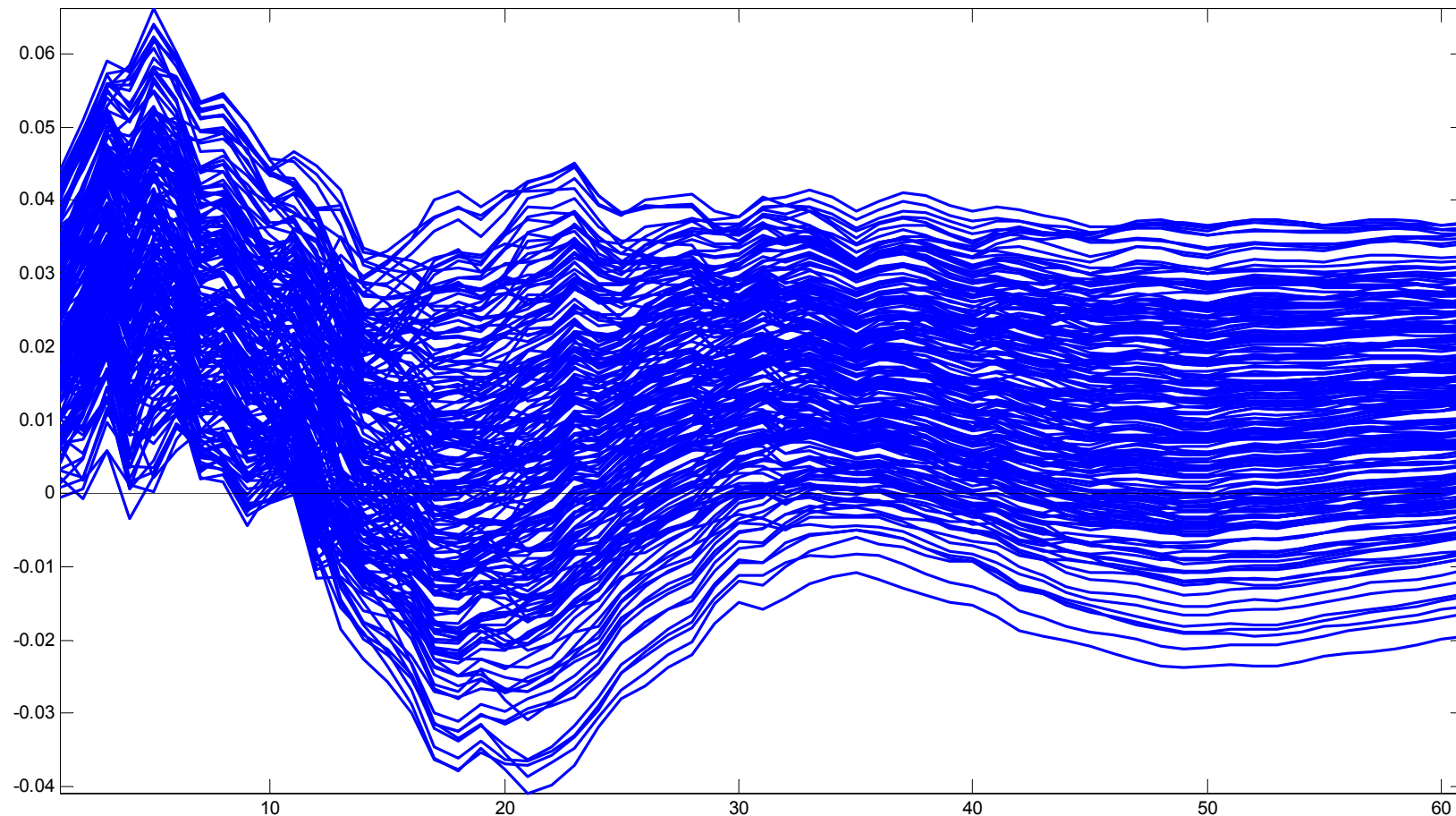
Comment I: Inventories and speculation cont.

- Reaction of **inventories** after non-fundamental financial shock (point estimates, 200 valid models)



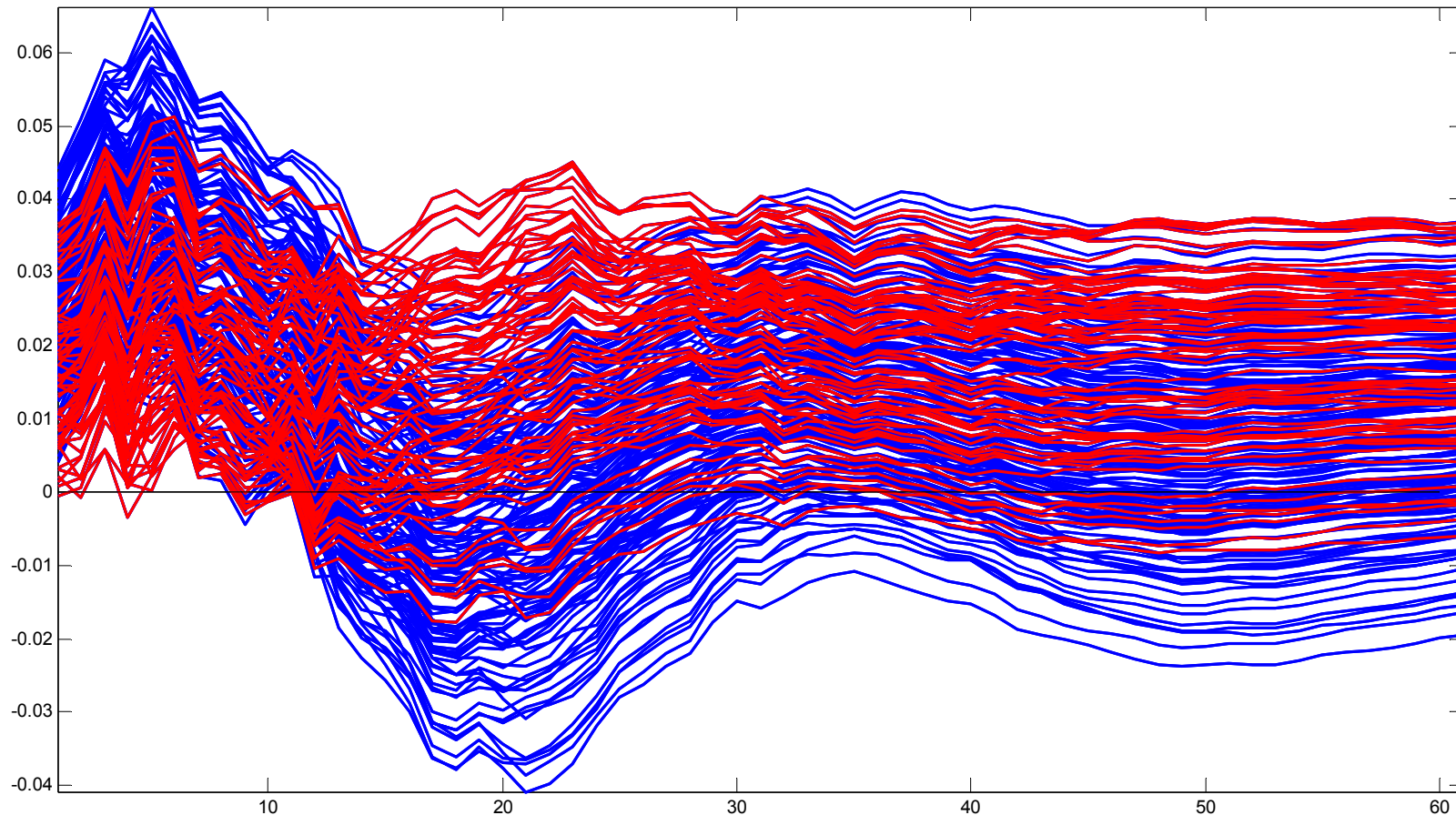
Comment I: Inventories and speculation cont.

- Reaction of the oil price after non-fundamental financial shock (point estimates, 200 valid models)



Comment I: Inventories and speculation cont.

- Reaction of the oil price after non-fundamental financial shock (point estimates, 200 valid models) (blue: LvR, red: only models which imply an increase in inventories)



Comment I: Inventories and speculation cont.

- Two additional checks where no sign restriction on inventories is imposed a priori
 - Impose **long-run zero restrictions** on P_{oil} , Y_w and Q_{oil} and contemporaneous zero restriction on Y_w after destabil. fin shock (Cholesky as in Kilian for remaining shocks)
 - Luetkepohl-Netsunajev (2012): **Identification through heteroscedasticity** (applied to oil market)
- Both schemes yield restrictions and results consistent with LvR.
- Inventories do not react significantly

Comment I: Inventories and speculation cont.

- To sum up:
- Role of inventories after destabilizing financial shock unclear. Three possibilities:
 - (1) Poor data?
 - (2) Do LvR mix up destabilizing financial with other shocks? Additional restriction needed?
 - (3) Can inventories decline after shock?

Comment II: Role of monetary policy

- Discussion whether loose MP has driven oil prices in the mid/late 2000s. Possible channels:
- (1) Fundamental
- (2) Financial/futures market channel (Frankel, Anzuini-Lombardi-Pagano)
 - Loose MP ↓ the opportunity cost of carrying speculative positions and implies that investors have stronger incentives to invest in risky assets (such as commodities) in search of higher return
 - ALP: MP shocks have no significant effects on non-commercial net long positions.
 - LvR: no significant correlation of destabilizing financial shock with interest rate.

Comment II: Role of monetary policy cont.

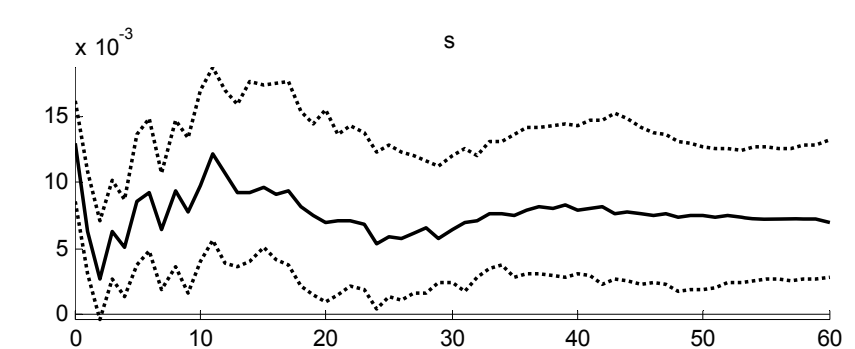
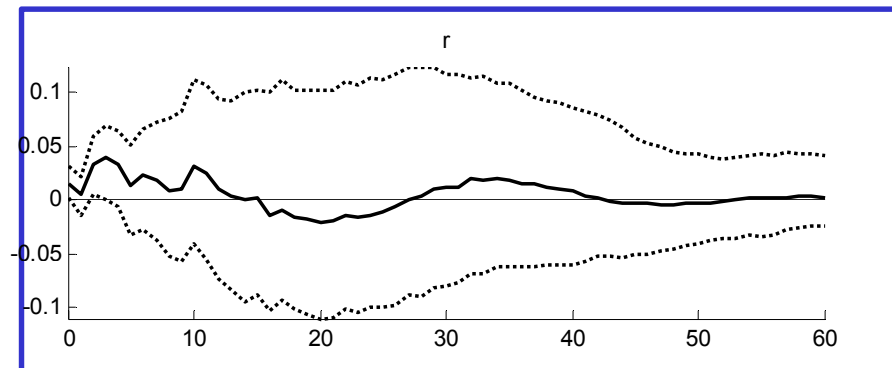
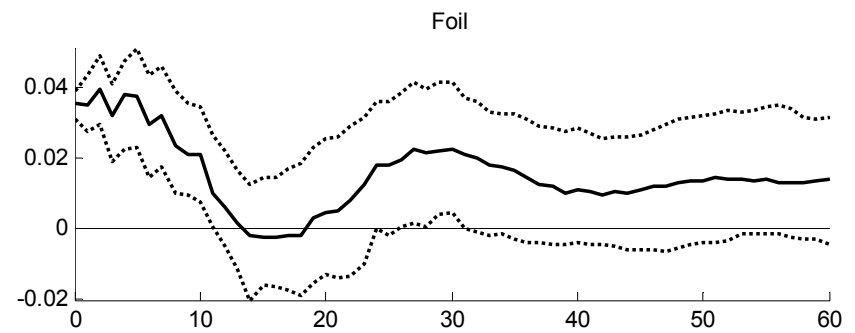
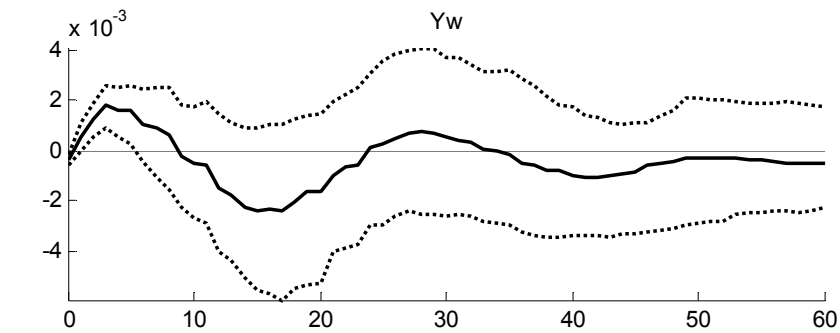
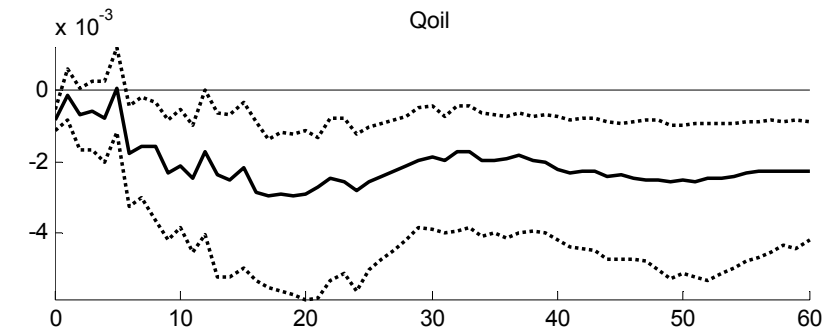
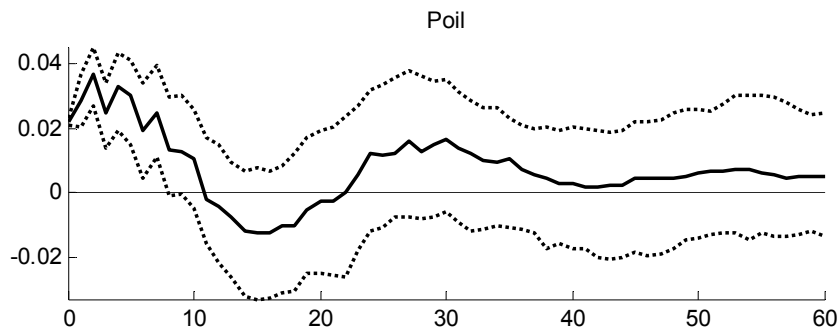
- Could include global interest rate (and later inflation and inventories) in VAR and disentangle MP and destabilizing financial shocks.

	Qoil	Yw	Poil	Foil	s	r
Oil supply	-	-	+	+	-	
Oil dem, driven by eco activity	+	+	+	+	-	+
Oil-specific dem	+	-	+	+	-	
Destabilizing financial				+	+	+
Monetary policy		+	+	+		-

Note: Sign restrictions are implemented as \leq or ≥ 0 .
r only restricted on impact after destab. fin. shock.

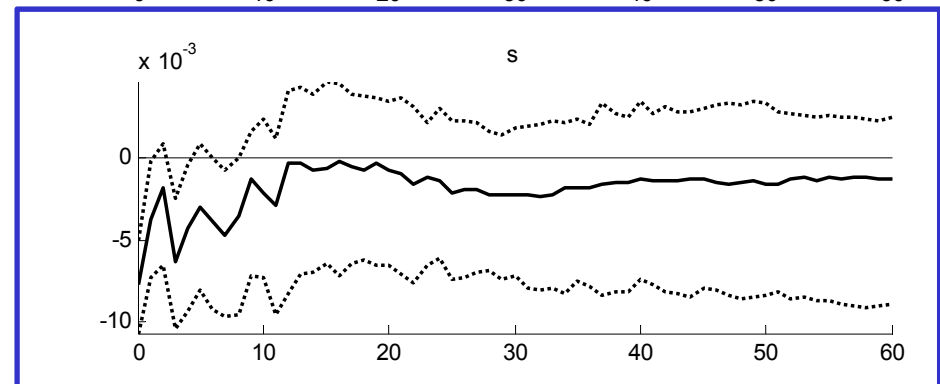
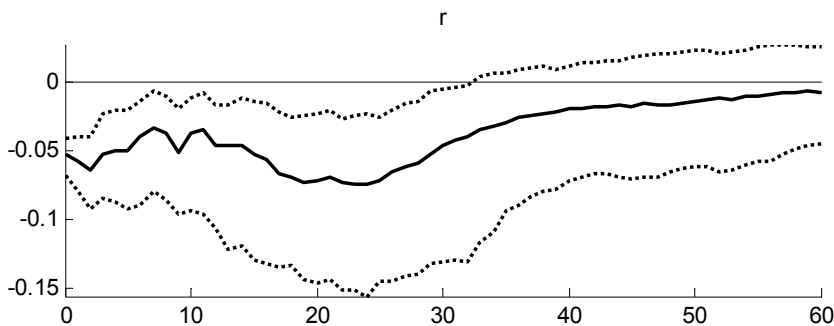
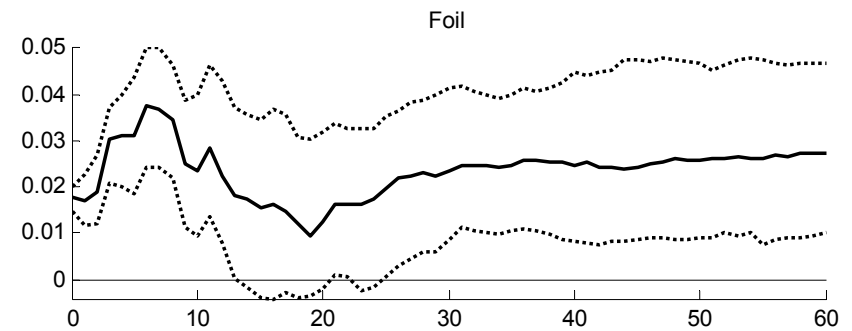
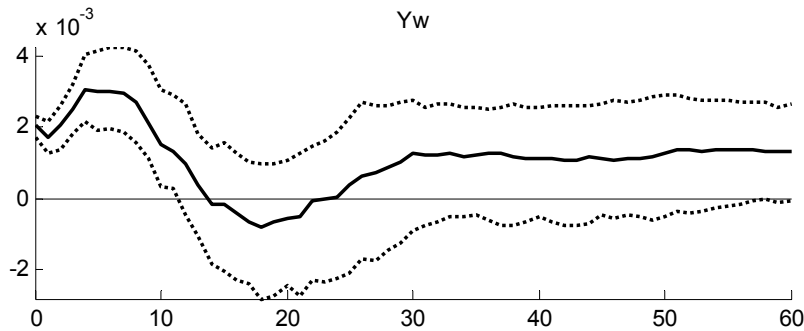
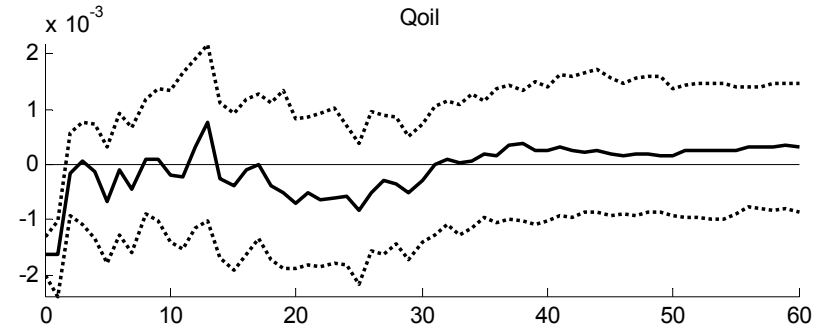
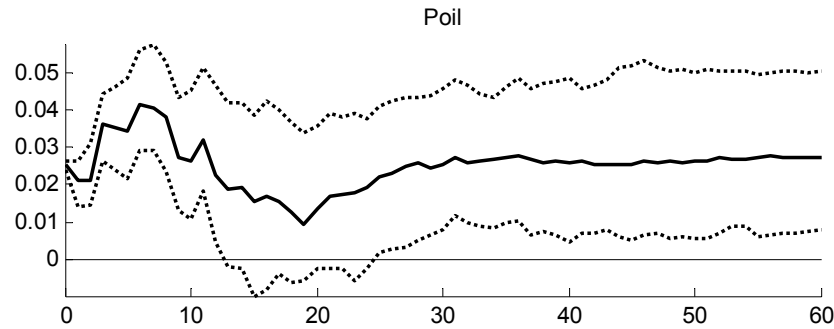
Comment II: Role of monetary policy cont.

- Effect of destabilizing financial shock



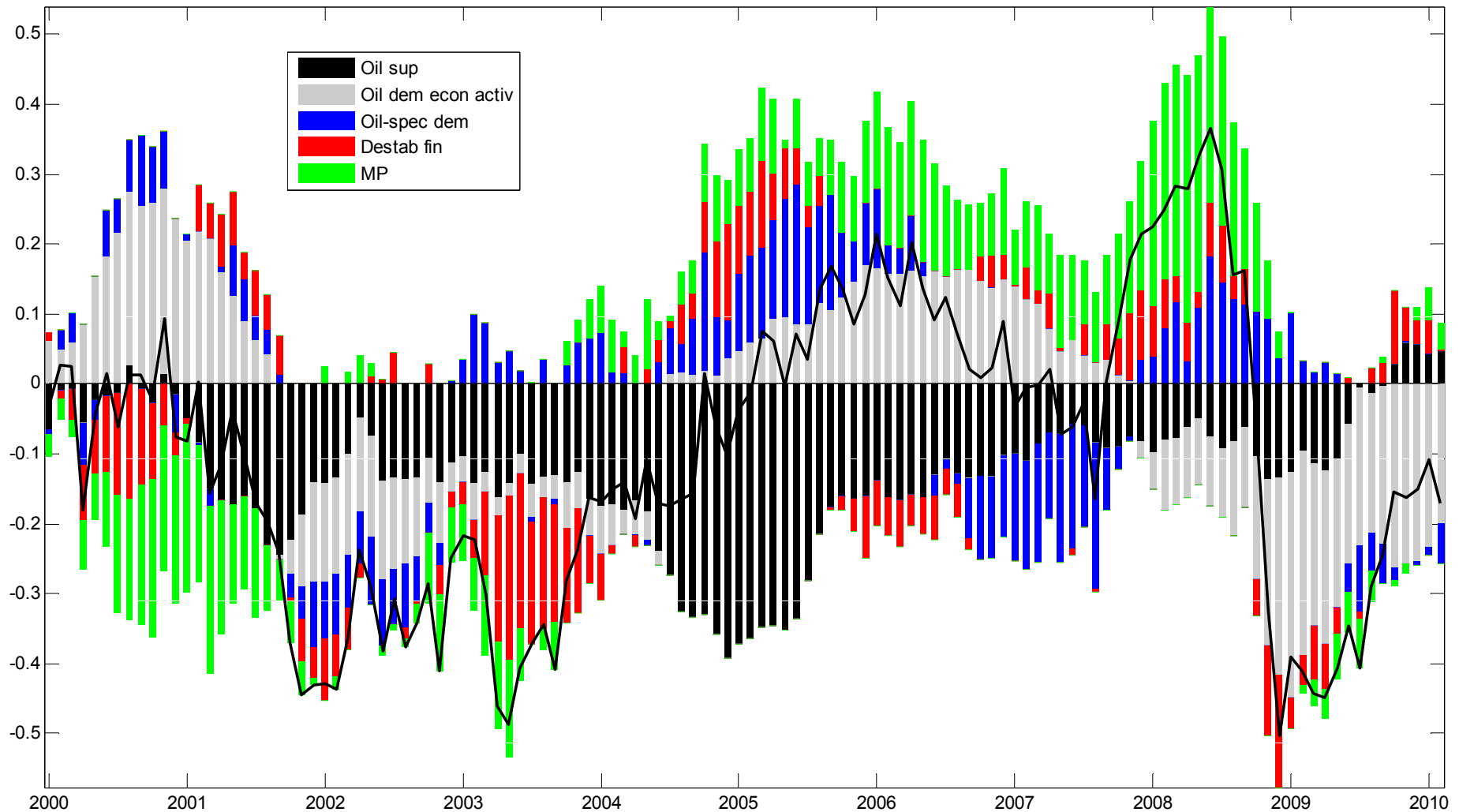
Comment II: Role of monetary policy cont.

- Effect of MP shock



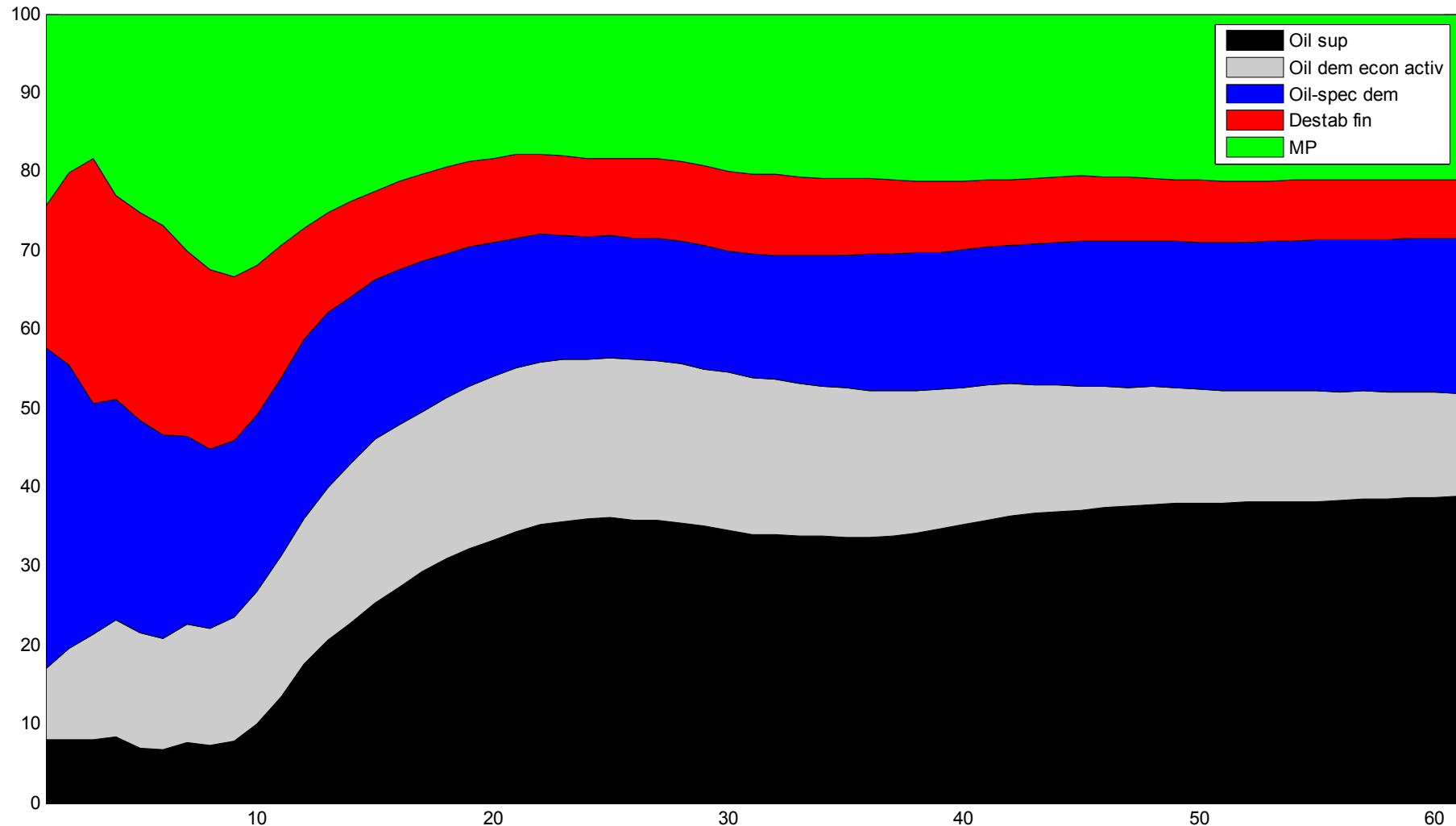
Comment II: Role of monetary policy cont.

- Historical decomposition of the oil price



Comment II: Role of monetary policy cont.

- Variance decomposition of the oil price



Comment II: Role of monetary policy cont.

- To sum up:
- MP has an effect on the oil price via a change in demand and supply rather than via destabilizing financial activity (consistent with LvR and ALP).
- MP contributed to the strong oil price increase in 2007-08.

Minor comment I: Spot and futures price

- Nominal spot and futures prices are $I(1)$ and cointegrated.
- Possibilities:
 - Estimate VAR in levels or
 - account for cointegration by estimating a VECM or
 - include spread instead of futures price.

Minor comment II: Additional literature, consistent with LvR

- **Econometric testing for bubbles**: test for a change from a random walk to an explosive process (e.g. Phillips-Shi-Yu (2011)).
 - Homm-Breitung (2011): Application to monthly, weekly and daily data of the Brent crude oil price btw. 1982 and 2008, but no evidence for a bubble is found.
- Studies using **survey data** on oil price expectations (e.g. ECB Survey of Professional Forecasters, Consensus):
 - Prat-Uctum (2009) reject rational expectations and suggest that mix btw. extrapolative, regressive or adaptive processes fit data.
 - Reitz-Ruelke-Stadtman (2011): heterogeneous expectations which destabilize in the neighbourhood of the fundamental value and stabilize in the presence of substantial misalignment.