

Comments on “*Real wages and monetary policy transmission in the euro area*”
by A. McCallum and F. Smets

Stefano Neri (Banca d'Italia)

Conference “Monetary policy transmission mechanism in the euro area in its first 10 years”

European Central Bank, September 28-29 2009

OUTLINE

1. Summary of the paper
2. Praise
3. The identification of monetary policy shocks:
 - a role for money?
4. Implications for monetary policy
5. Conclusions

1. Summary: objective and methodology

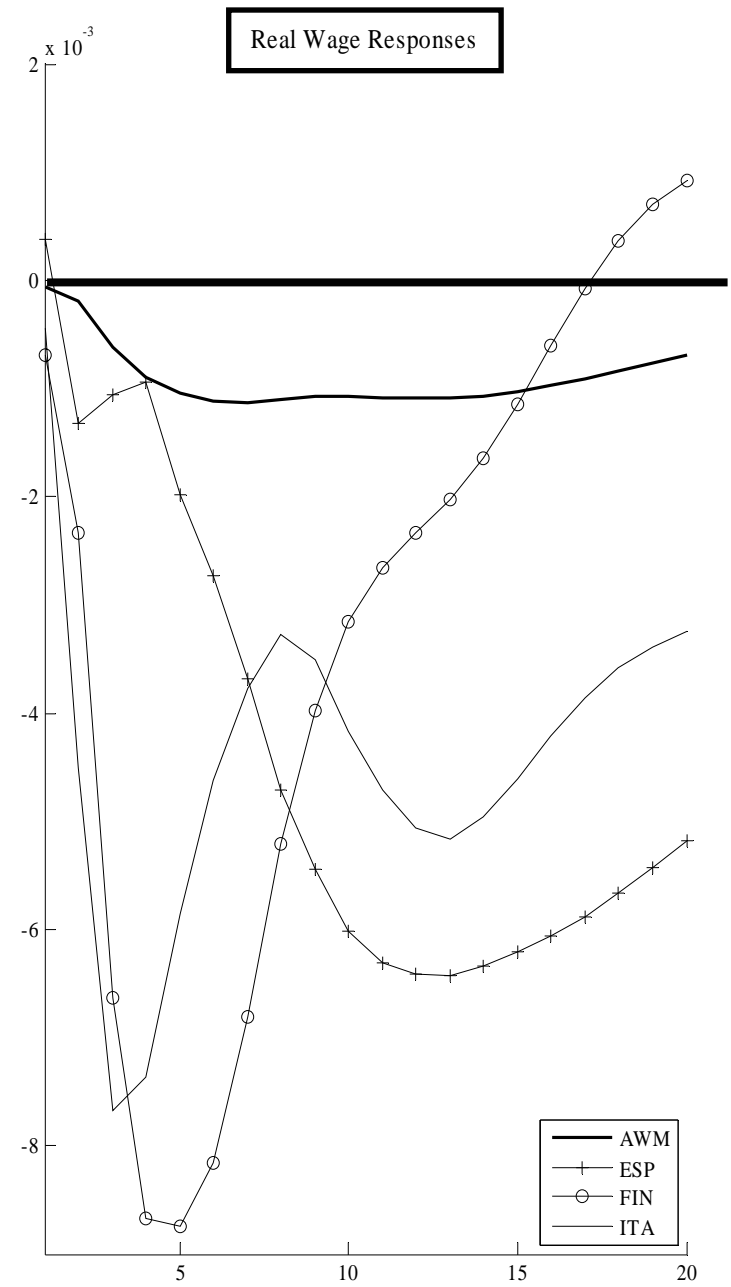
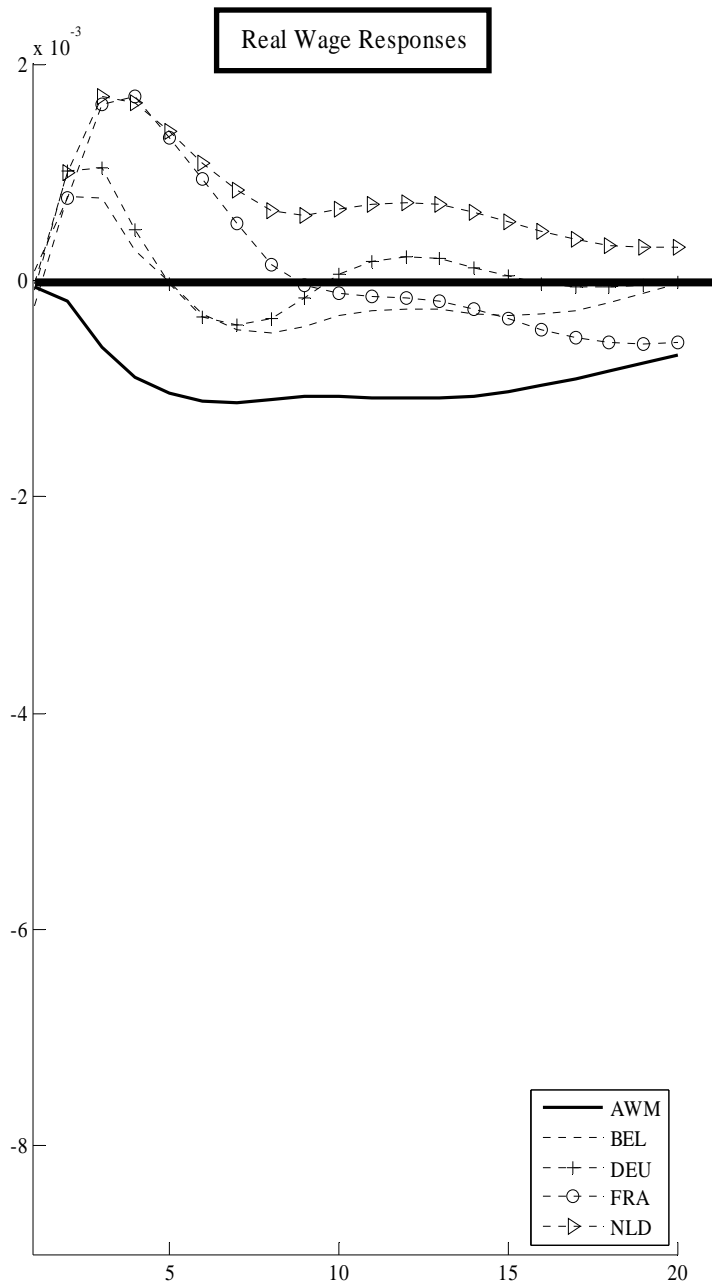
- Quantify the effects of monetary policy on wages and employment in euro area countries using the **FAVAR** methodology (Bernanke *et al.*, 2005)
- Large data set including **country, sectoral** and **euro area** time series

1. Summary: findings

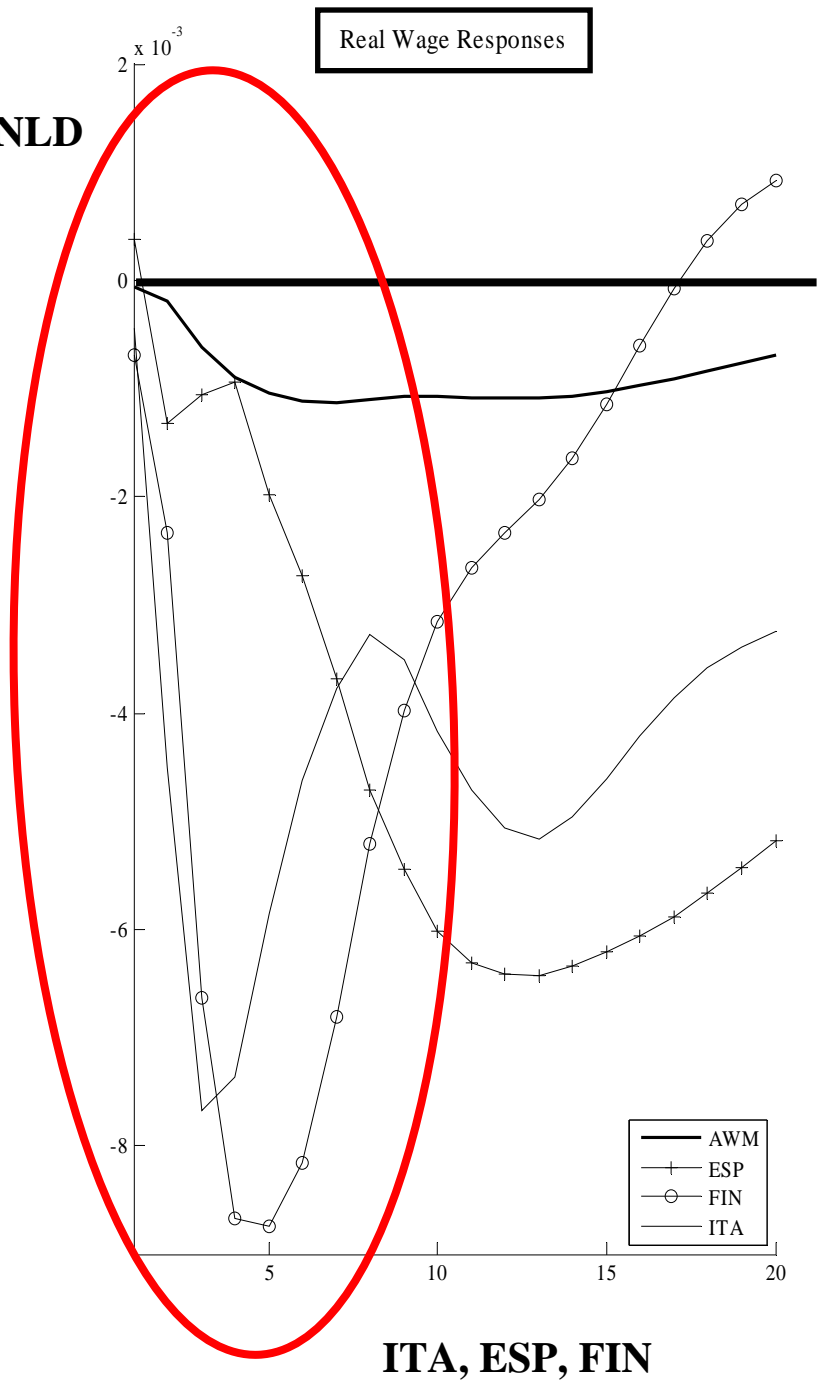
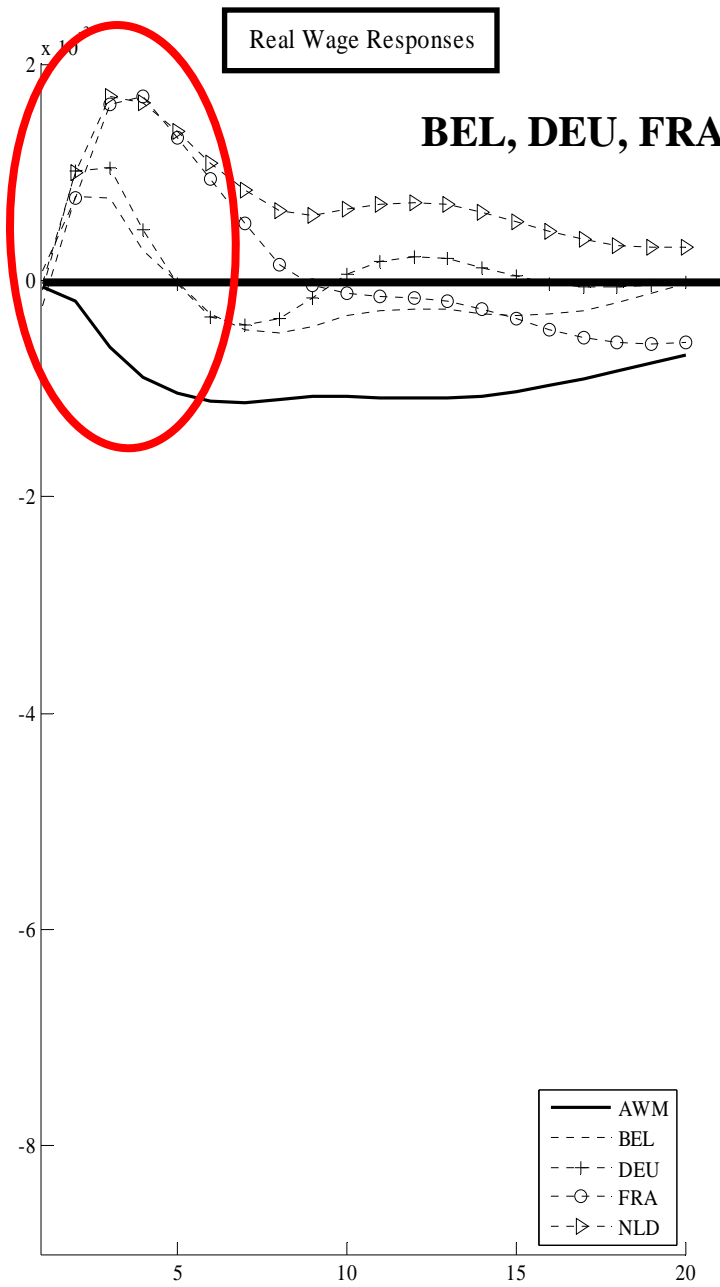
1: **Heterogeneous** responses of real wages across countries and sectors

2: Responses have become stronger and **more homogenous** across countries over time

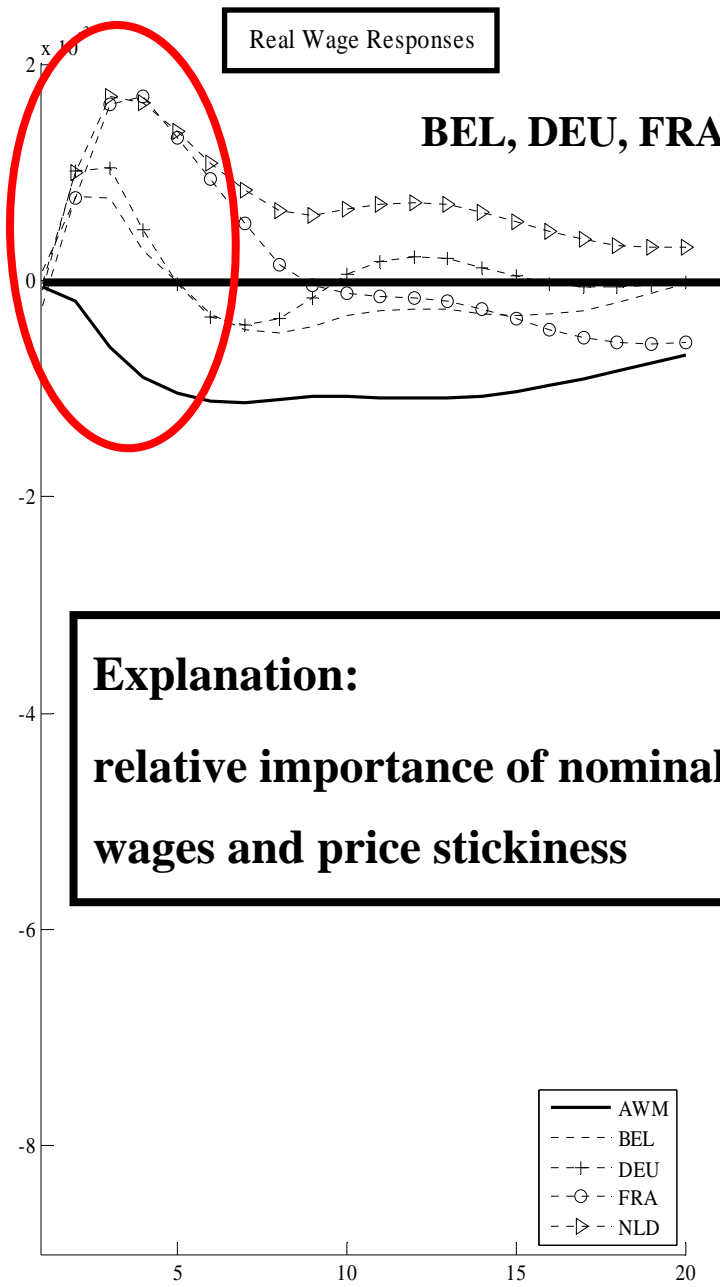
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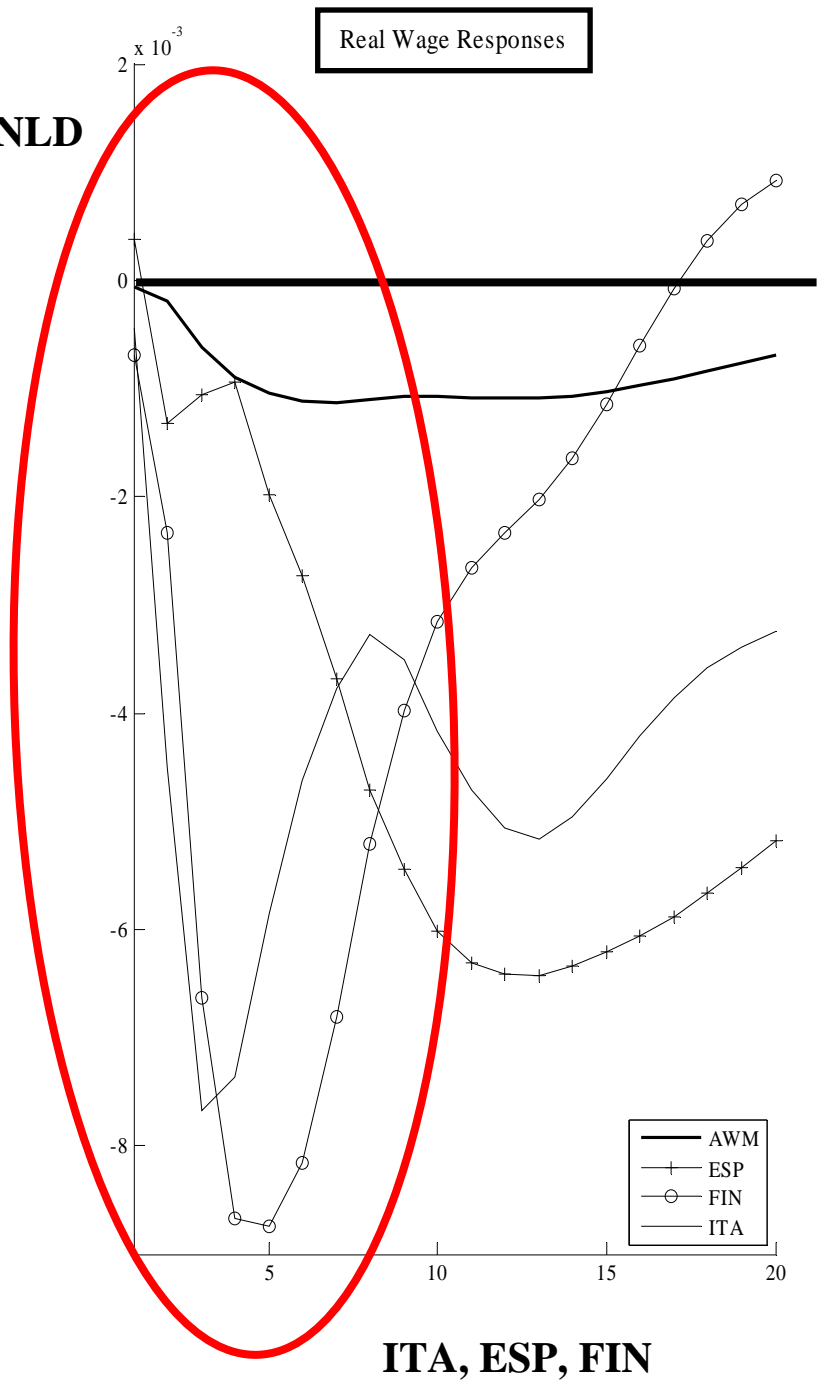
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Explanation:
relative importance of nominal wages and price stickiness



2. Praise

- Very interesting and useful paper
- FAVAR: many potential applications
- Relative importance of price and wage stickiness crucial for monetary policy (EHL, 2000)

3. Identification of monetary policy shocks

- Economic interpretation of factors and identification
- Short-run restrictions (e.g. CEE, 1998) harder to justify

$$Y_t = \begin{bmatrix} X_{s,t} \\ S_t \\ X_{f,t} \end{bmatrix} \quad S_t = f(\Omega_t) + \varepsilon_t^R$$

- LR restrictions (technology shocks) easier to justify?
- Sign restrictions FAVAR: Ahmadi and Uhlig (2008)

3. Identification of monetary policy shocks

- Belviso and Milani (2005): group variables that are similar and relate them to common factors

$$\begin{bmatrix} X_t^1 \\ X_t^2 \\ \dots \\ X_t^I \end{bmatrix} = \begin{bmatrix} \Lambda_1^f & 0 & \dots & 0 \\ 0 & \Lambda_2^f & 0 & 0 \\ \dots & 0 & \dots & 0 \\ 0 & 0 & \dots & \Lambda_I^f \end{bmatrix} \begin{bmatrix} F_t^1 \\ F_t^2 \\ \dots \\ F_t^I \end{bmatrix} + \begin{bmatrix} e_t^1 \\ e_t^2 \\ \dots \\ e_t^I \end{bmatrix}$$

- For example, the “real activity” factor determines industrial production, capacity utilization rates, employment, consumer expenditures, etc...

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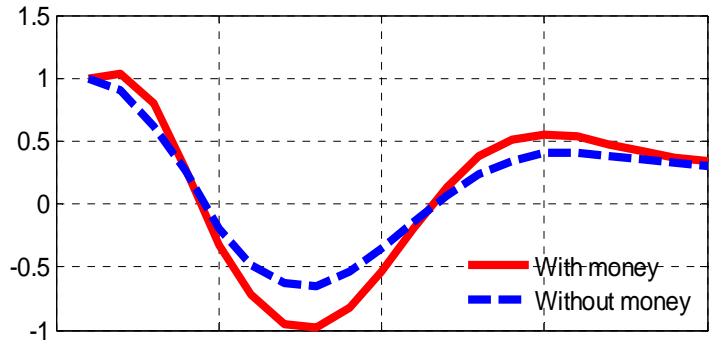
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- Role of money (Leeper and Roush, 2003): whether and how money enters a VAR matters for inference about effects of monetary policy
- Money important for understanding effects of MP: (i) role in the transmission mechanism (ii) as an informational variable
- Does “M” affects the response of wages?

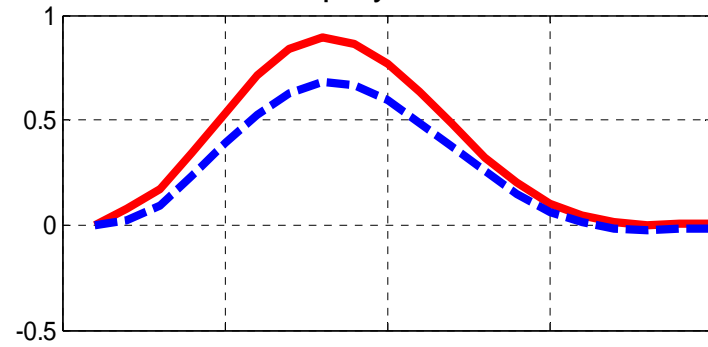
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- Small scale VAR (8 variables) for euro area (1992:Q1-2007:Q4) including wages for Germany and Italy. No need to preliminary transform data
- Non-recursive identification (Kim, 1999 and Sims and Zha, 1999) of monetary policy shocks
- Compare impulse responses with and without M2

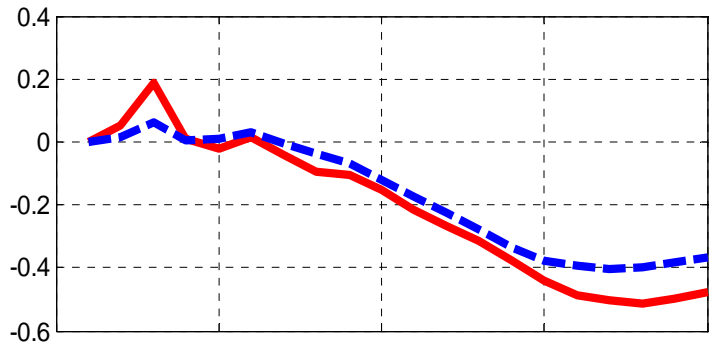
Short-term interest rate



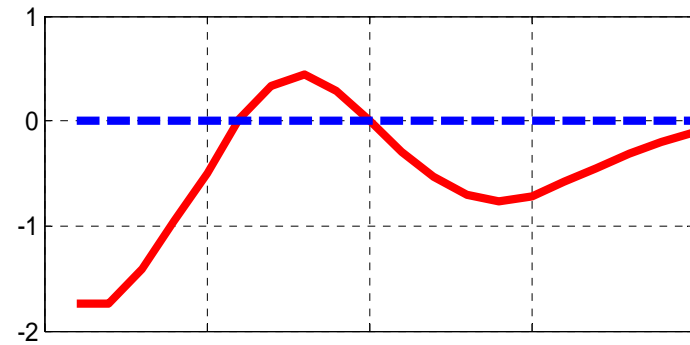
Unemployment rate



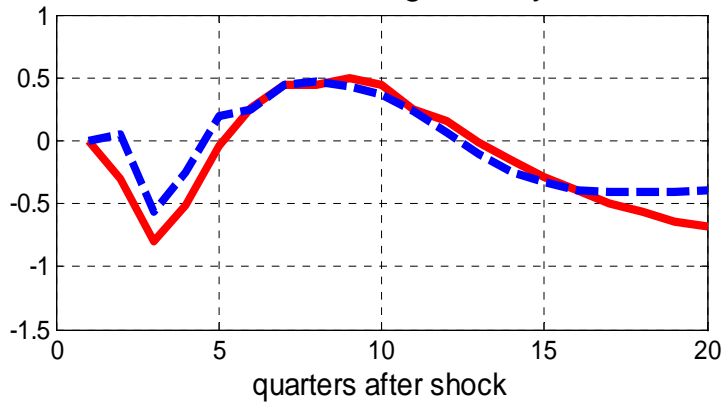
HICP



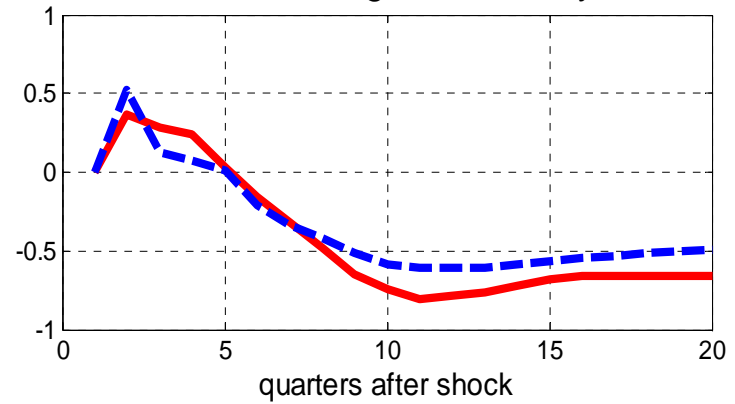
M2



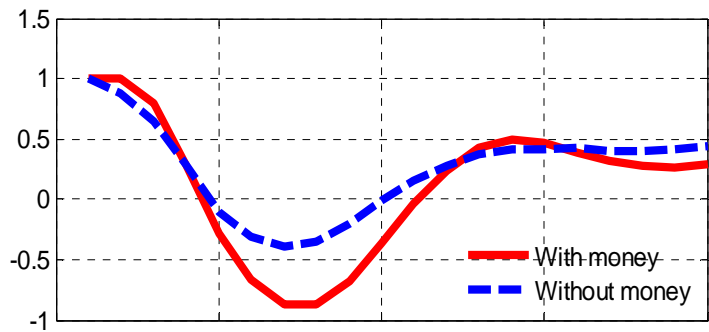
Nominal wages: Italy



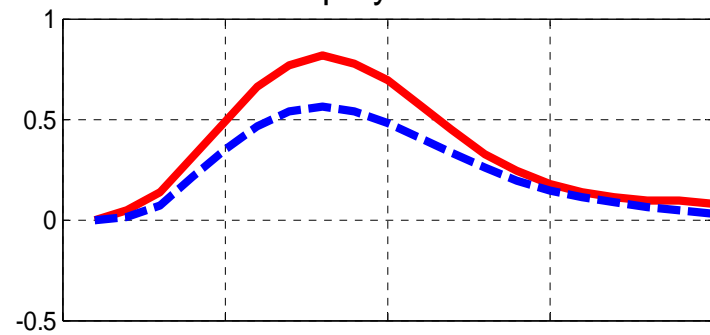
Nominal wages: Germany



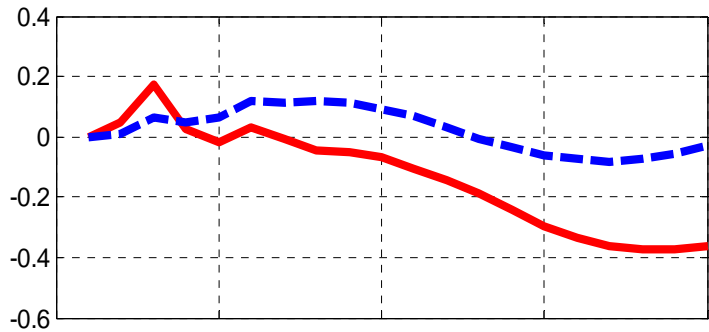
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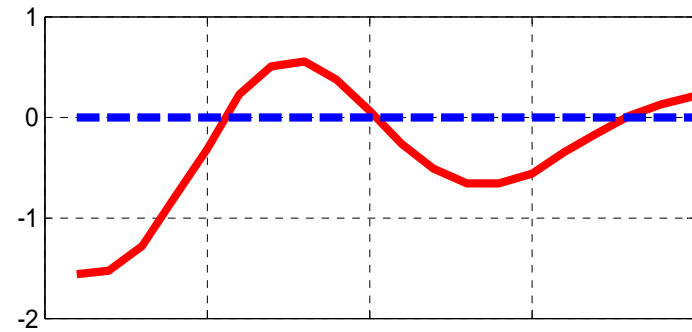
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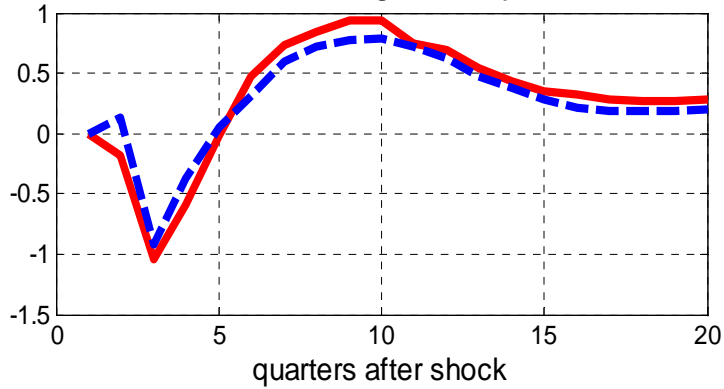
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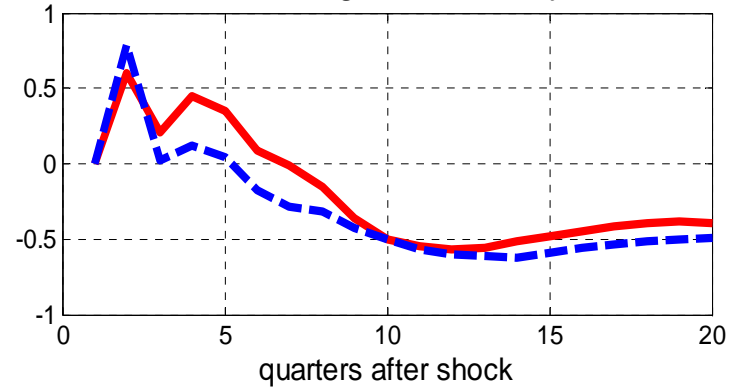
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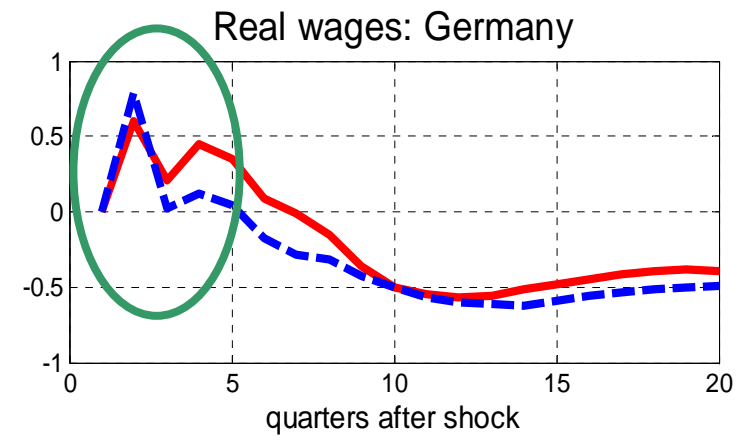
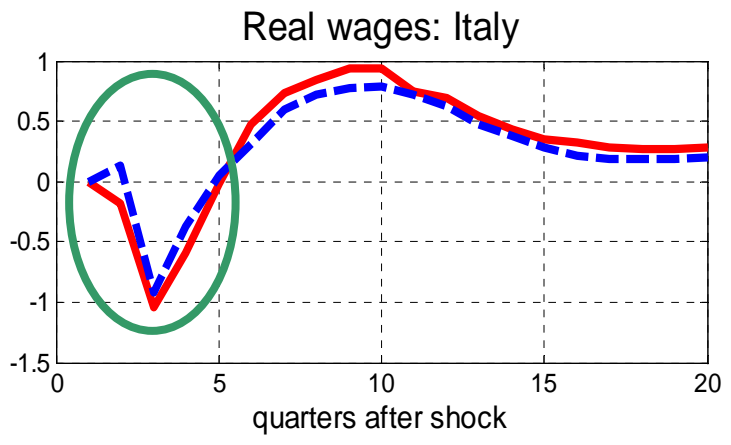
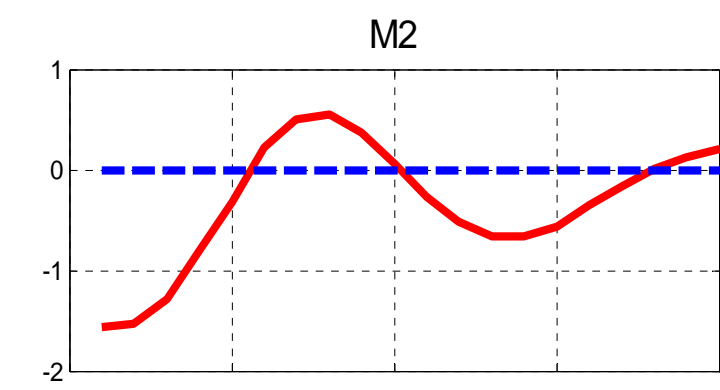
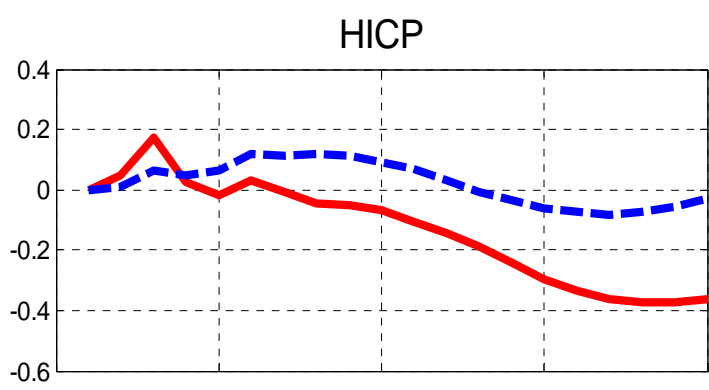
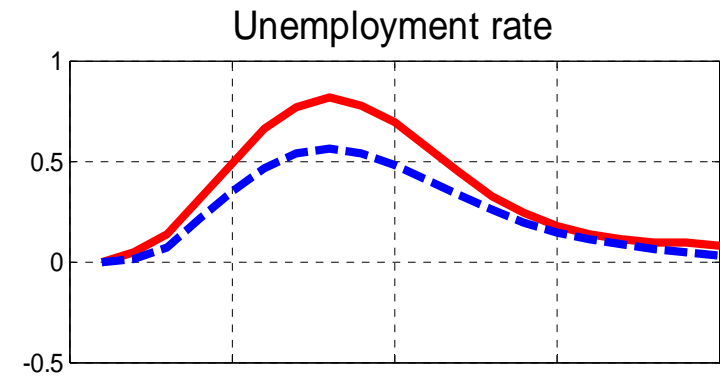
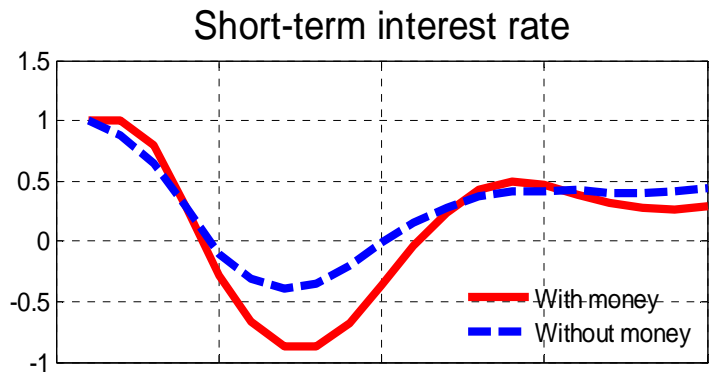


Real wages: Italy



Real wages: Germany





3. Identification of monetary policy shocks

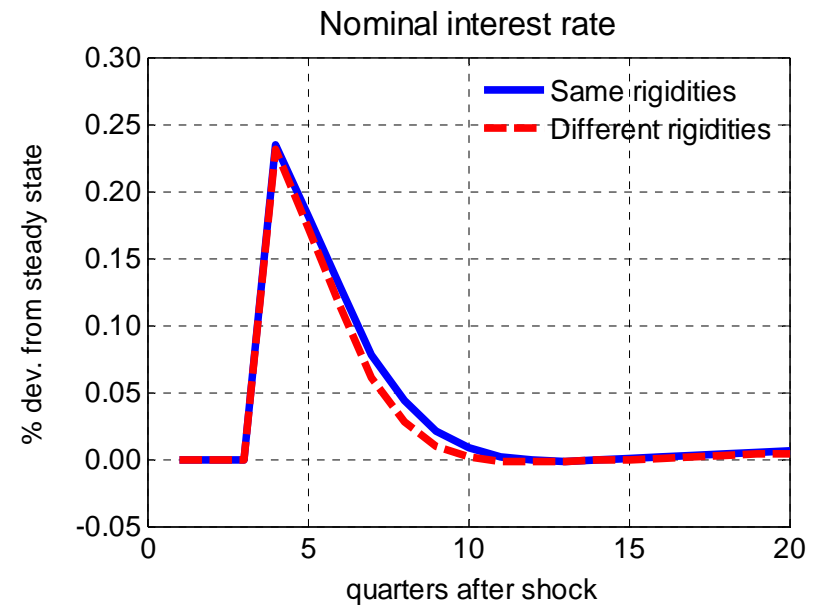
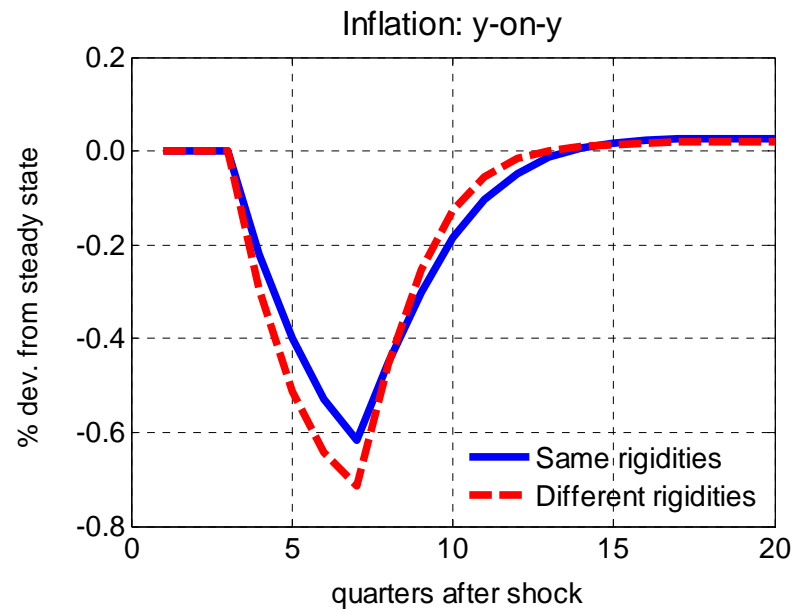
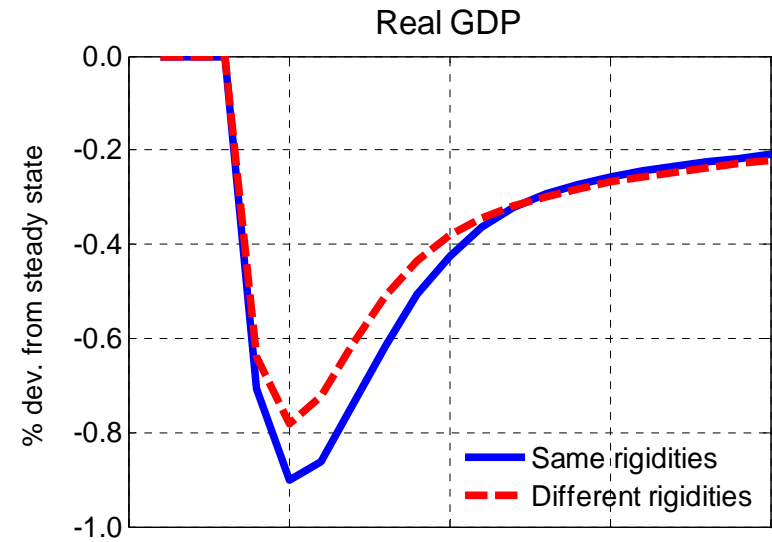
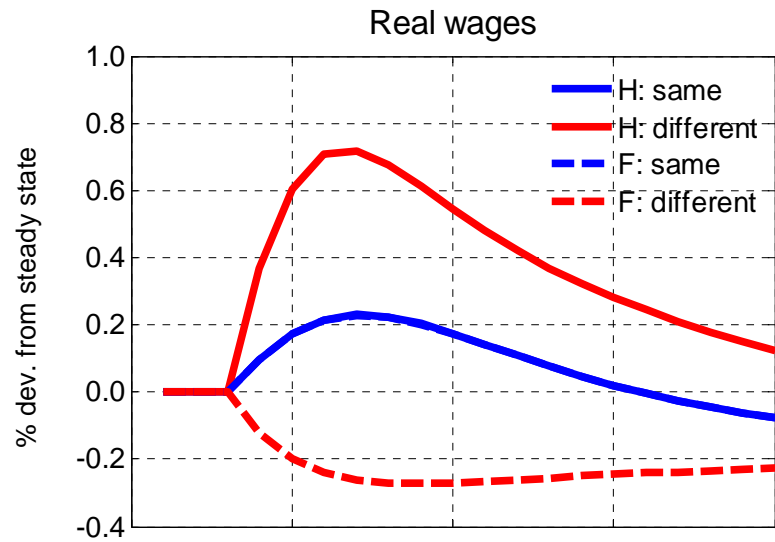
- “M” does not seem to play a role in the identification / transmission mechanism of monetary policy shocks
- VAR confirms heterogeneity in responses of real wages (at least for DEU and ITA)
- Recursive (Cholesky) identification of monetary policy shocks also confirms the findings

4. Implications for monetary policy

- Heterogeneity in W and P rigidities and the effectiveness of monetary policy
- Tool: a two-country monetary union model with heterogeneity in wage and price rigidities
- Features of the model: real rigidities, tradable and non-tradable goods, rule-of-thumb consumers (Forni, Gerali and Pisani, 2009)

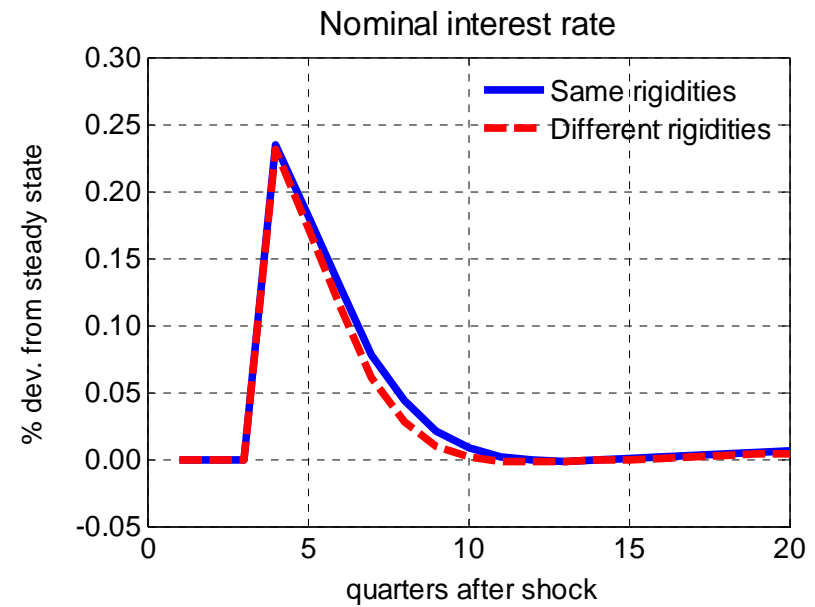
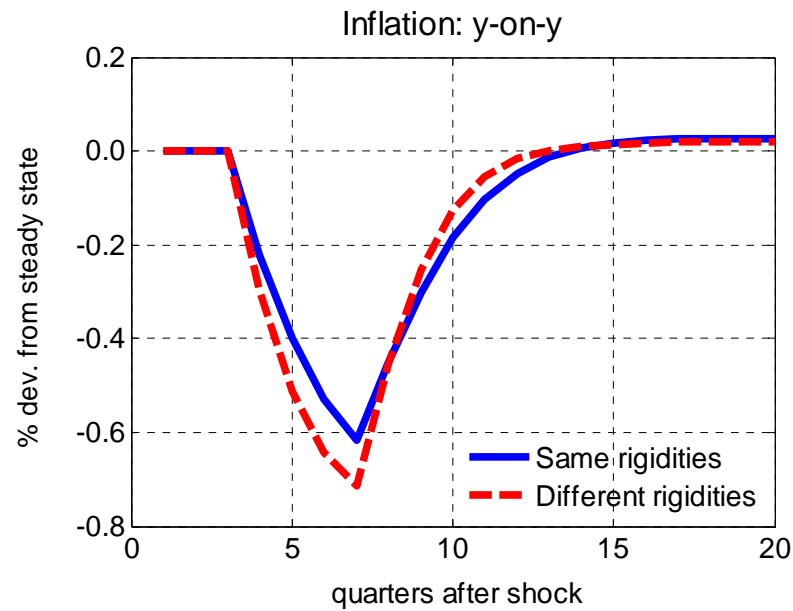
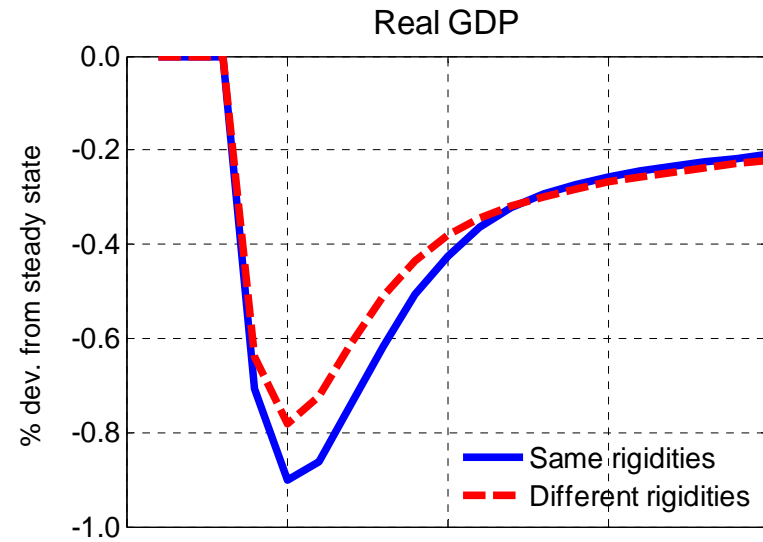
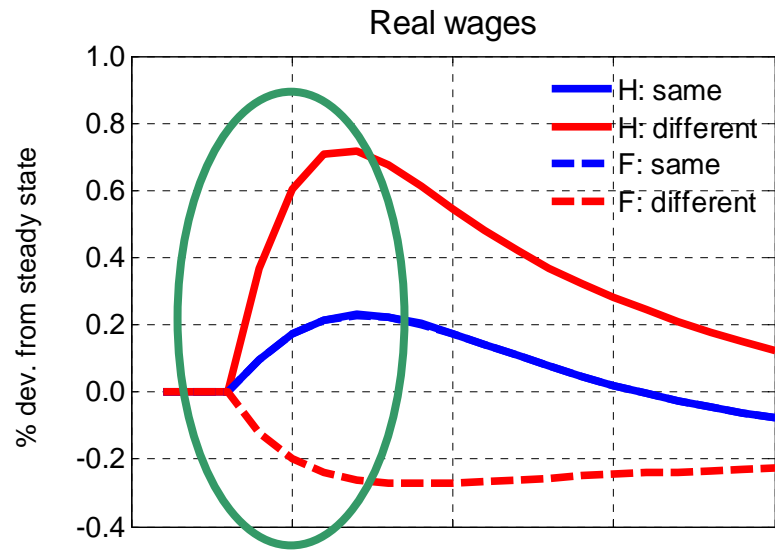
4. Implications for monetary policy

- Compute impulse responses to a shock that raises short-term interest rate under:
 - a) heterogeneity in degree of nominal rigidities
 - b) same degree of nominal rigidities
- Focus on the responses of euro-area output and inflation to monetary policy



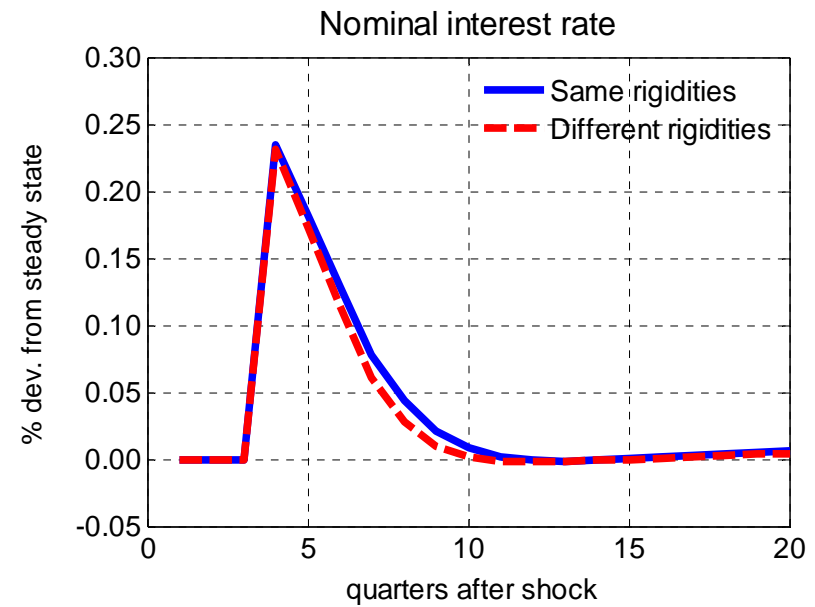
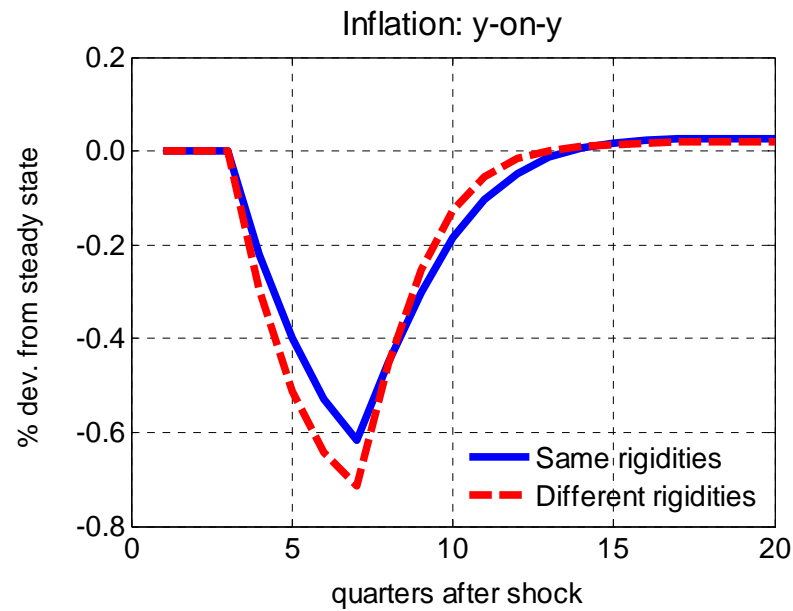
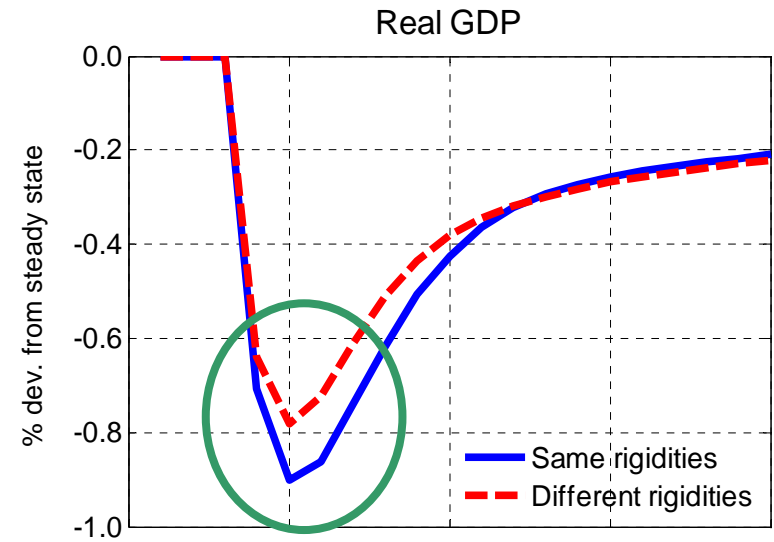
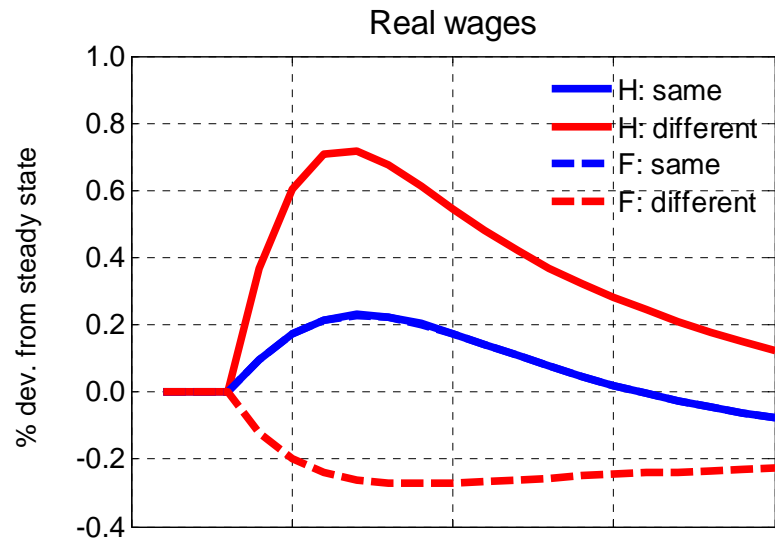
Home (H): wages stickier, prices more flexible

Foreign (F): wages more flexible, prices stickier



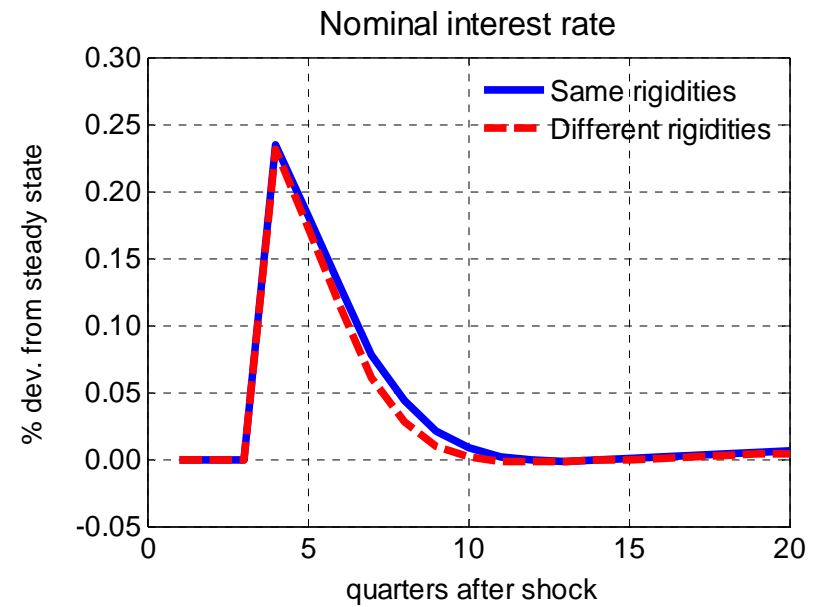
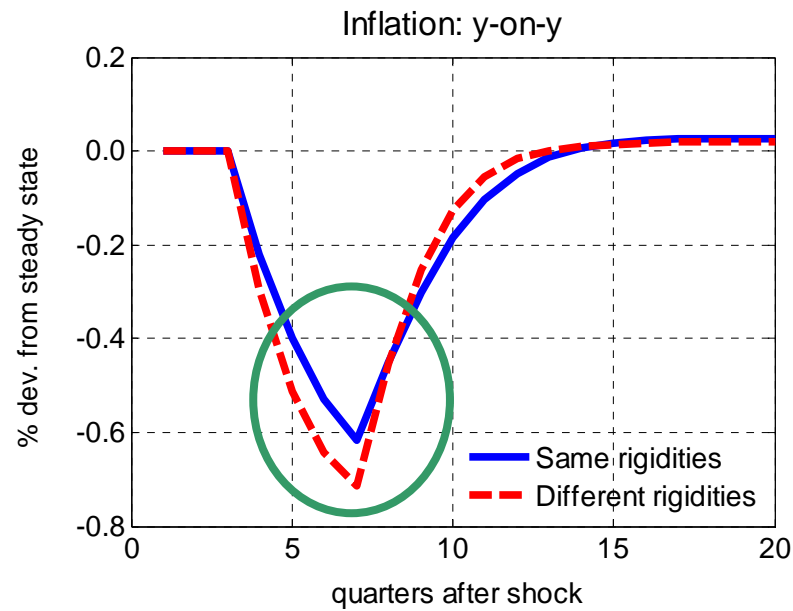
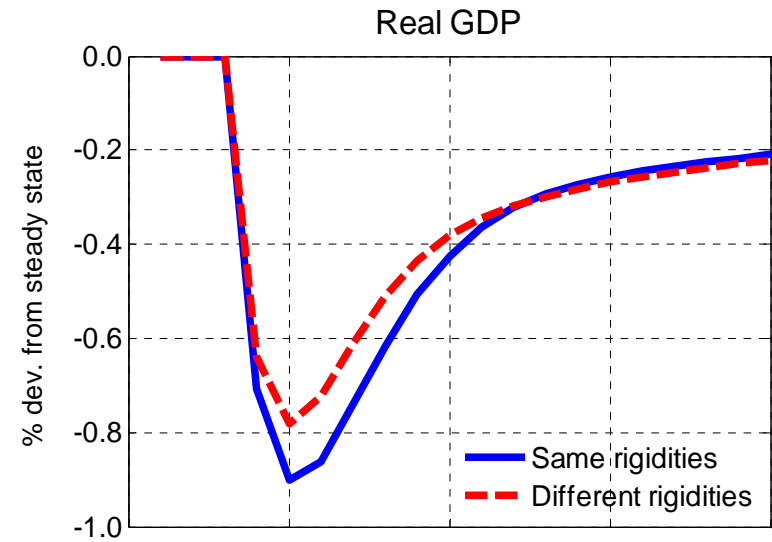
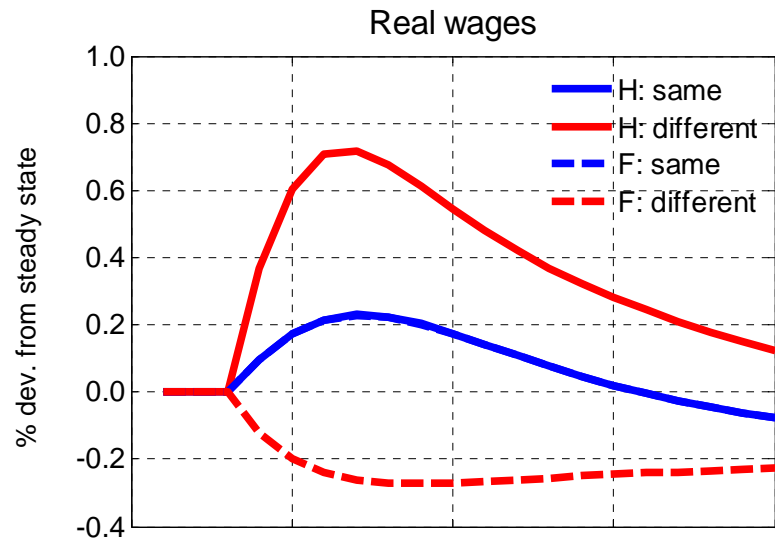
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Home (H): wages stickier, prices more flexible

Foreign (F): wages more flexible, prices stickier



Home (H): wages stickier, prices more flexible

Foreign (F): wages more flexible, prices stickier

4. Implications for monetary policy

- Reducing heterogeneity in wage and price stickiness has a limited impact on effectiveness of monetary policy
- Model replicates finding that country with nominal wages stickier than prices experiences an increase in real wages after a policy shock
- However, nominal wages always fall regardless of the degree of nominal rigidity

5. Conclusions

- Nice paper with interesting evidence
- Useful for setting up MU DSGE models
- VAR models with Bayesian shrinkage
- Interpretation of results: firing and hiring costs?