News and Business Cycles in Open Economies

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Main Question

- Comovements among macro data:
  - Most aggregates are procyclical (up to trade balance)
  - Easy to get: TFP shocks
  - Fragile as conditional on type of shock, timing and information
- They focus on sudden stops and news shocks
- I will focus on news shocks

Importance of the paper

- Focus on news shocks
- Will use heavily an ongoing research by Beaudry, Dupaigne and Portier
- Empirical analysis: Extend Beaudry and Portier [2006]

$$A(L)\begin{pmatrix} \Delta TFP_{i,t} \\ \Delta SP_{i,t} \\ X_{i,t} \end{pmatrix} = \begin{pmatrix} u_{1,t} \\ u_{2,t} \\ u_{3,t} \end{pmatrix}$$

with $A(L) = I + \sum_{k=1}^{p} A_k L^k$ and

$$A_k = \begin{pmatrix} A_{k,11} & A_{k,12} & 0 \\ A_{k,21} & A_{k,22} & 0 \\ A_{k,31} & A_{k,32} & A_{k,33} \end{pmatrix}$$

Importance of the paper

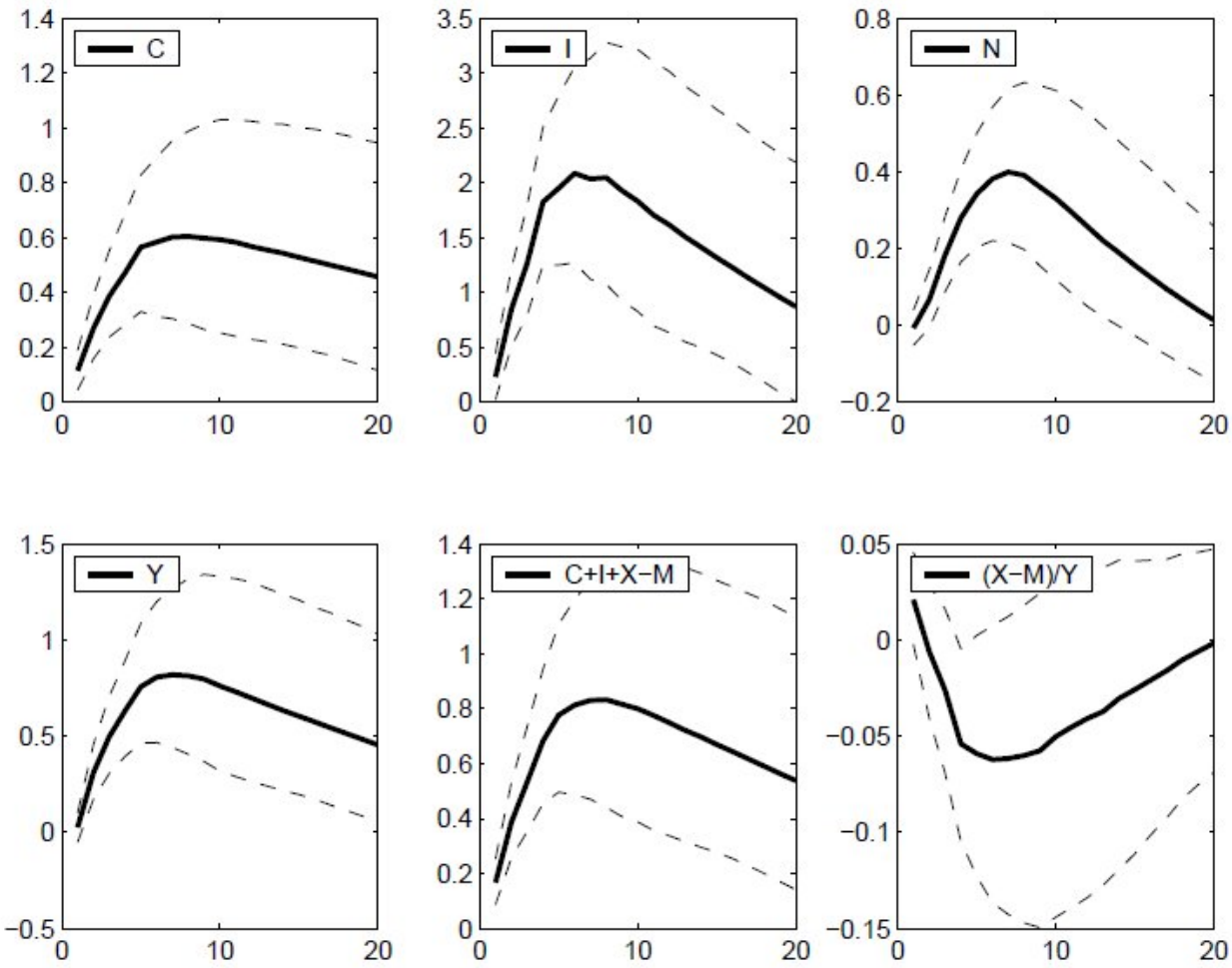
- Get a structural representation

$$\begin{pmatrix} \Delta TFP_{i,t} \\ \Delta SP_{i,t} \\ X_{i,t} \end{pmatrix} = C(L) \begin{pmatrix} \varepsilon_{1,t} \\ \varepsilon_{2,t} \\ \varepsilon_{3,t} \end{pmatrix}$$

- News shock: ε_{2t} has no contemporaneous effect on TFP_i
- ε_{3t} has no effect on TFP_i and SP_i.
- Get the IRFs of X_i to the news shocks $\Longrightarrow$ comovements

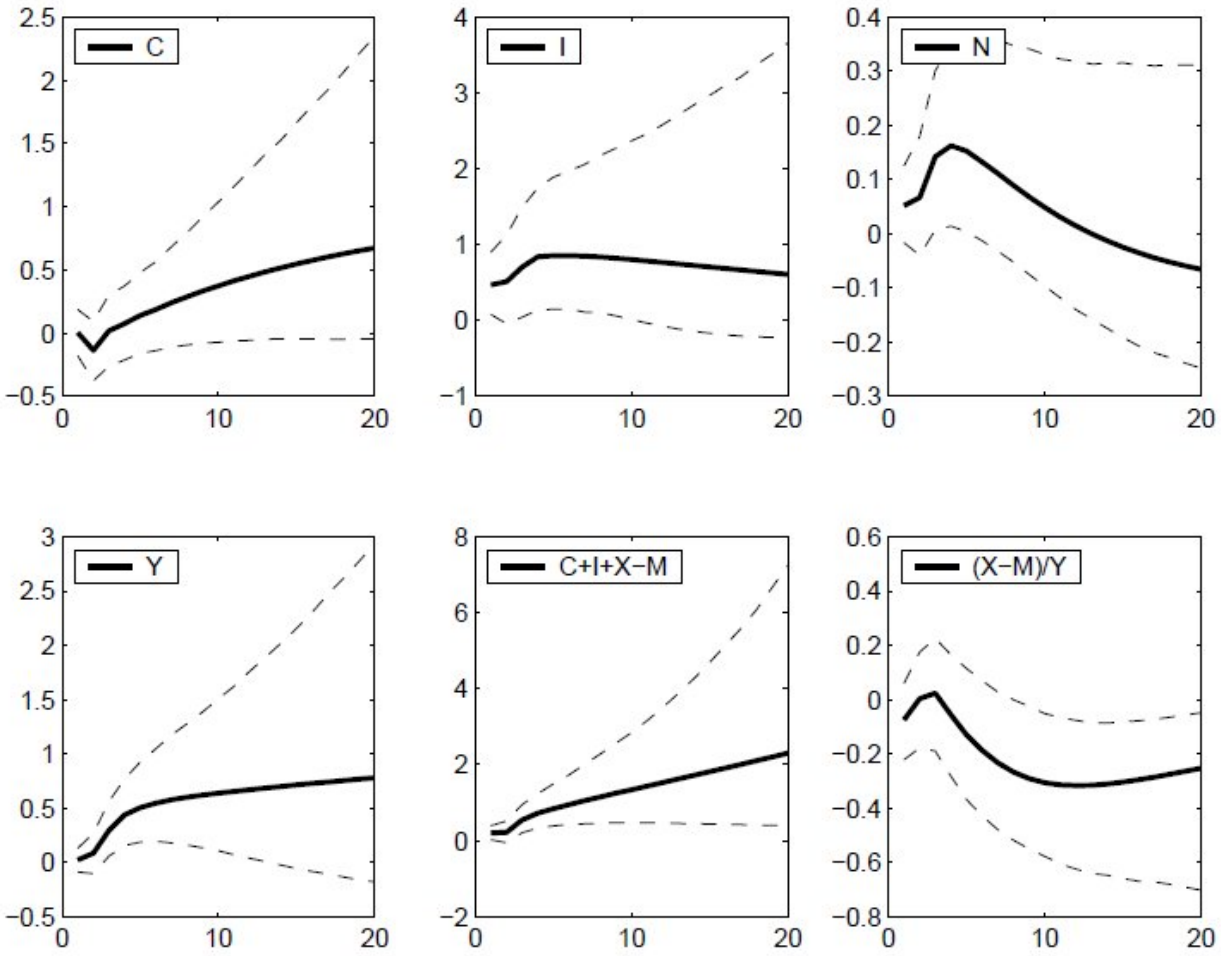
Response of US Economy to US News

VECM, 5 lags



Response of German Economy to a German News

VECM, 2 lags



What Does Theory Predict?

- Standard neo–classical model fails to account for that
- Any news yielding an increase in C translates in a decrease in h and therefore Y and I.

Why? **Wealth effect:** I expect to be richer in the future and therefore consume more leisure. Since I want to smooth my leisure consumption, I start reducing my hours worked today.

- Solution: Kill wealth effect + additional features

This paper

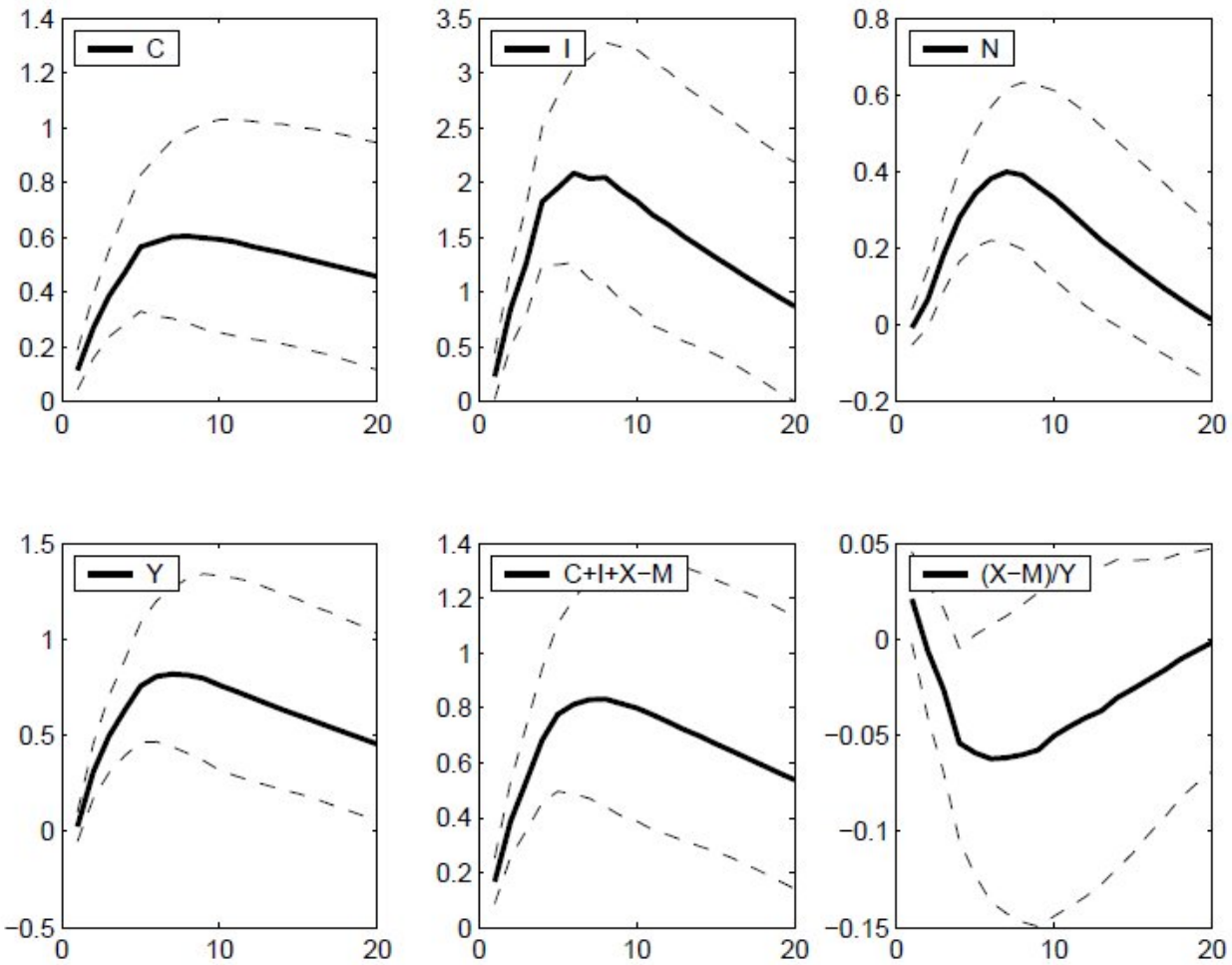
- Extend Rebelo and Jaimovich (2006) to the SOE case (with Labor A.C., Invest. A.C., cost of Ext. finance)
- Success!
- Give conditions for the SOE model to be successful
  - weak wealth effects on labor (to prevent the drop (increase) in hours following a news (sudden–stop))
  - adjustment costs on flows (investment or labor)
  - high enough cost of external finance (related to the wealth effect)
  - utilization less useful (mainly because $Y \neq C + I$)

One Step Further: International Comovements

- Their success suggests going one step further: International comovement
- Beaudry, Dupaigne, Portier [2007]
- Same VAR methodology

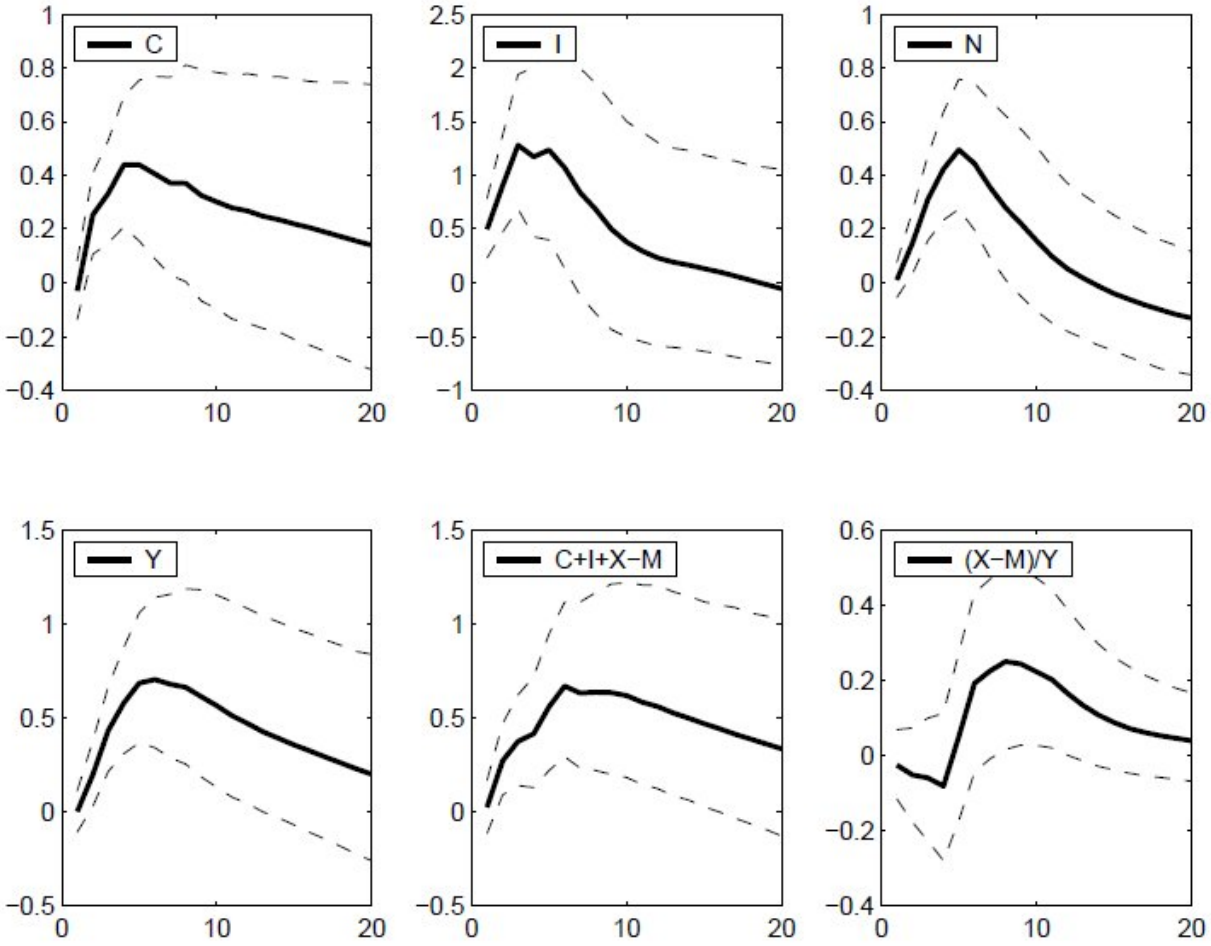
Response of US Economy to US News (Reminder)

VECM, 5 lags



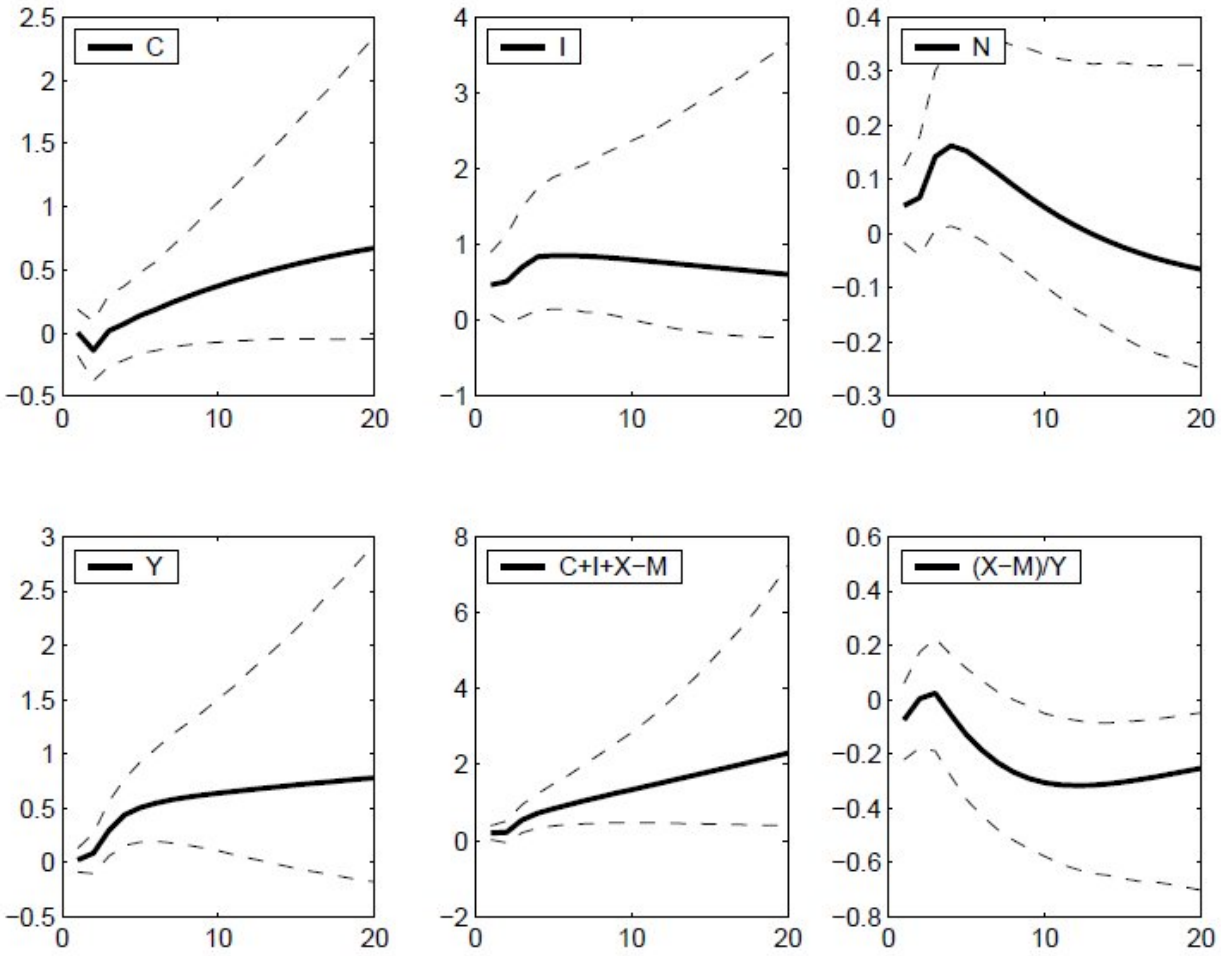
Response of Canadian Economy to US News

VECM, 5 lags



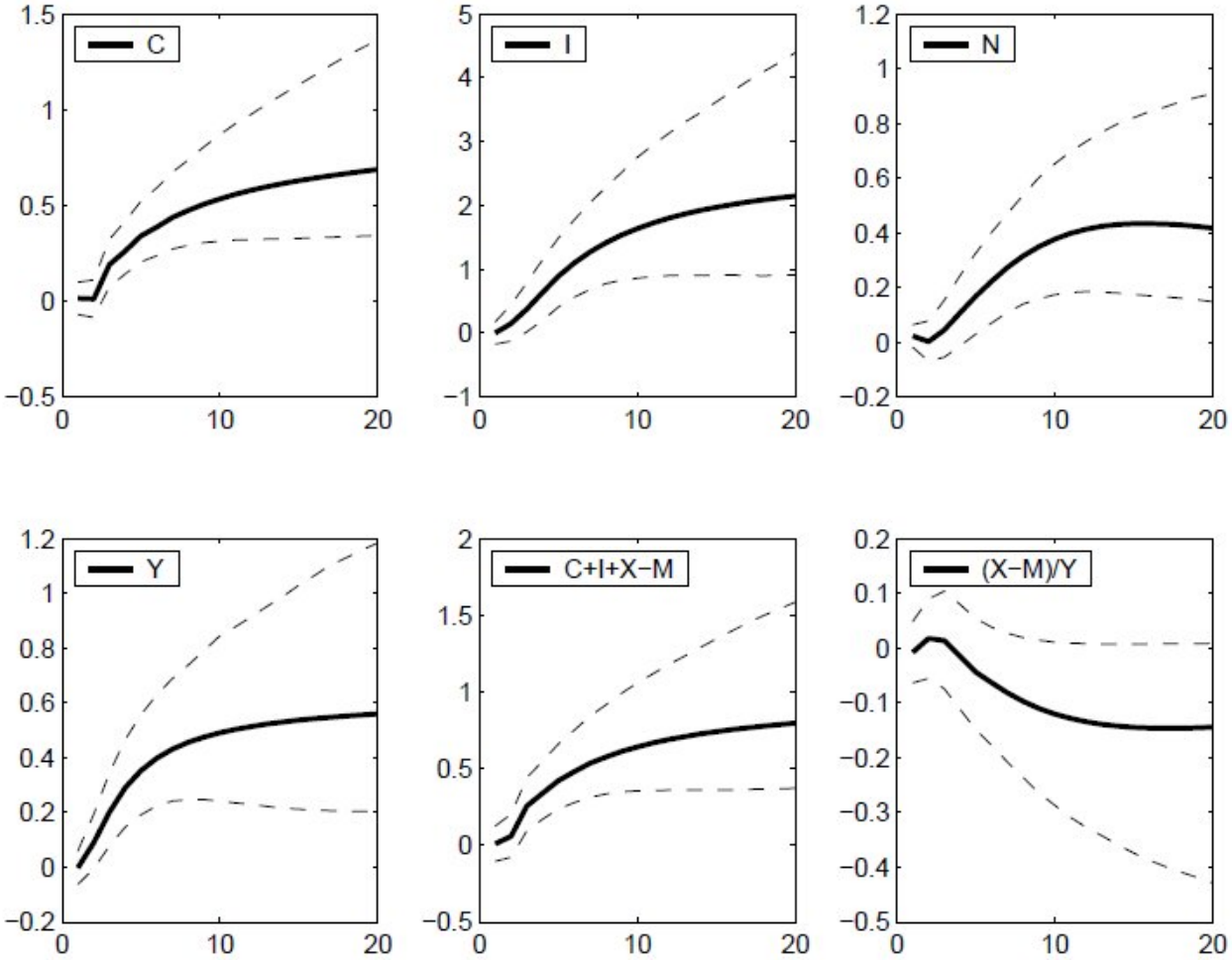
Response of German Economy to a German News

VECM, 2 lags



Response of French Economy to a German News

VECM, 2 lags



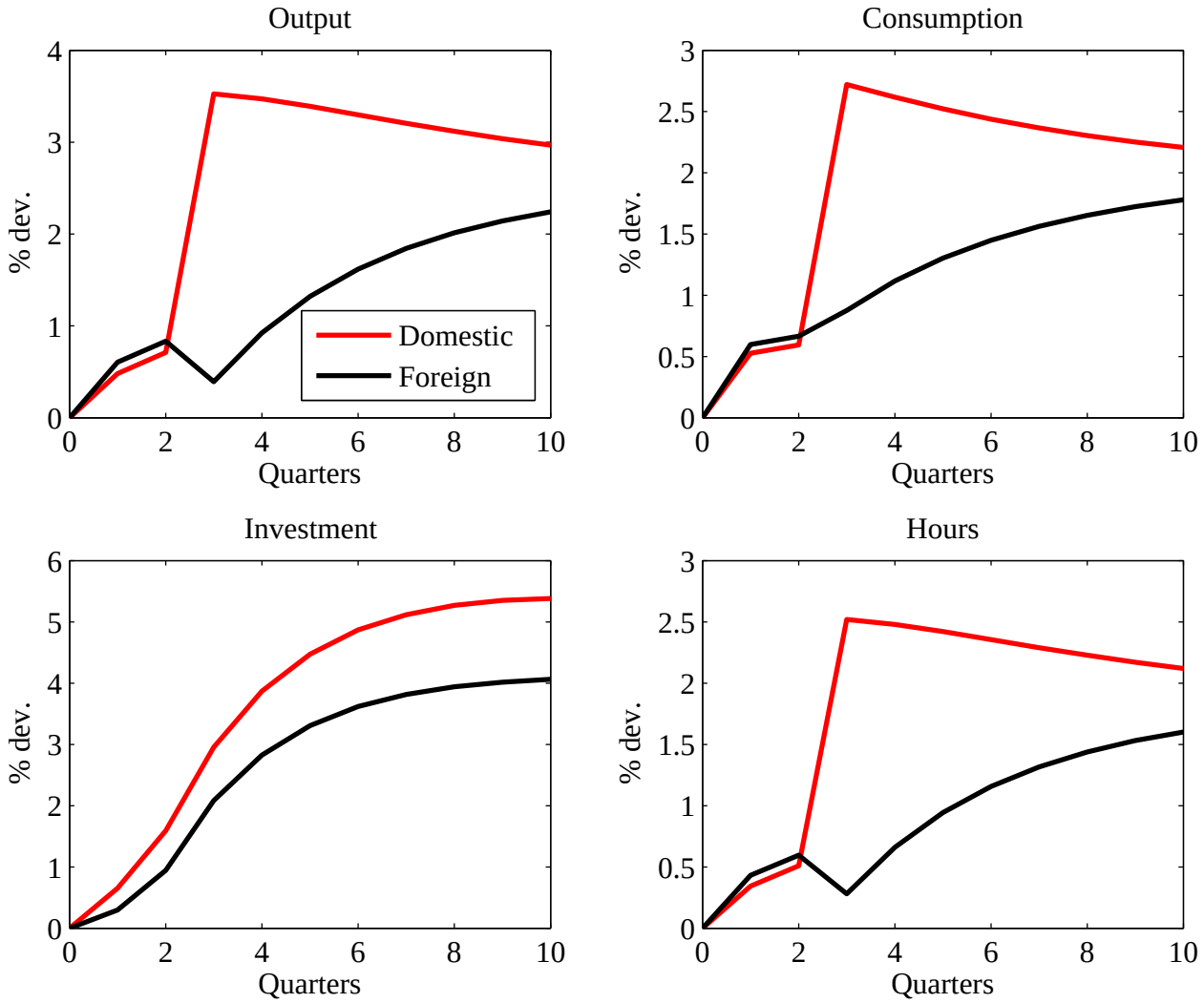
One Step Further: International Comovements

- Positive international transmission of news shocks
- Requires a 2 country model
- Can Sergio and Nir model do it?

One Step Further: International Comovements

- Build a two country model featuring
  - GHH preferences (departs from Nir and Sergio)
  - Utilization
  - Investment adjustment costs
  - news on (stationary) TFP shocks (announced 2 periods in advance)

IRF in the Theoretical Model



To conclude

- Very nice paper that deals with an important question
- Very promising as it identifies the key mechanisms for comovements