



TFP, News, and «Sentiments:» The International Transmission of Business Cycles

By Levchenko and Pandalai-Nayar
Discussion by Kenza Benhima
(Uni. Lausanne and CEPR)
With the help of Rachel Cordonier 😊



This paper

- Sentiments:
 - Important driver of **domestic** business cycles
 - Role in **international** business cycles?
- What drives international business cycles?
 - This paper: sentiments generate substantial business cycles co-movements (short run)

Identification

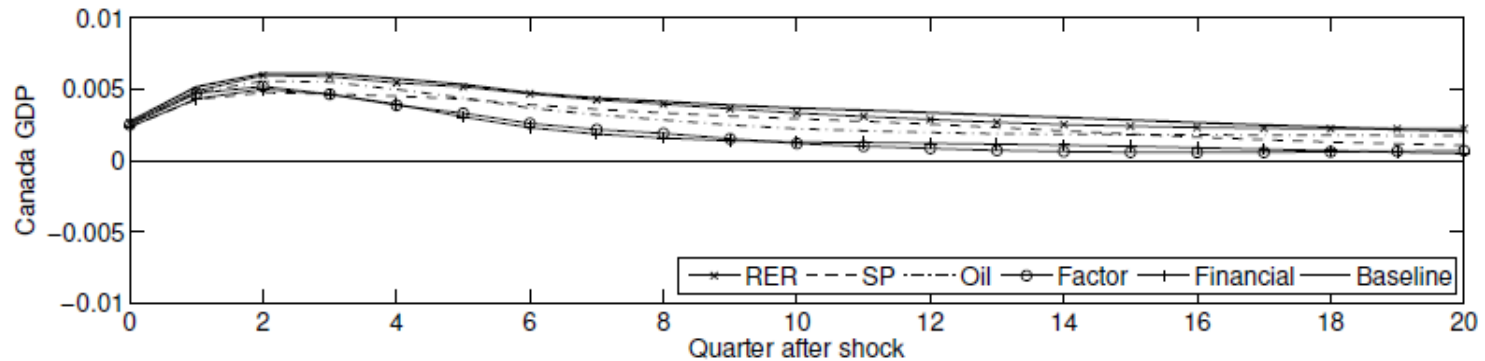
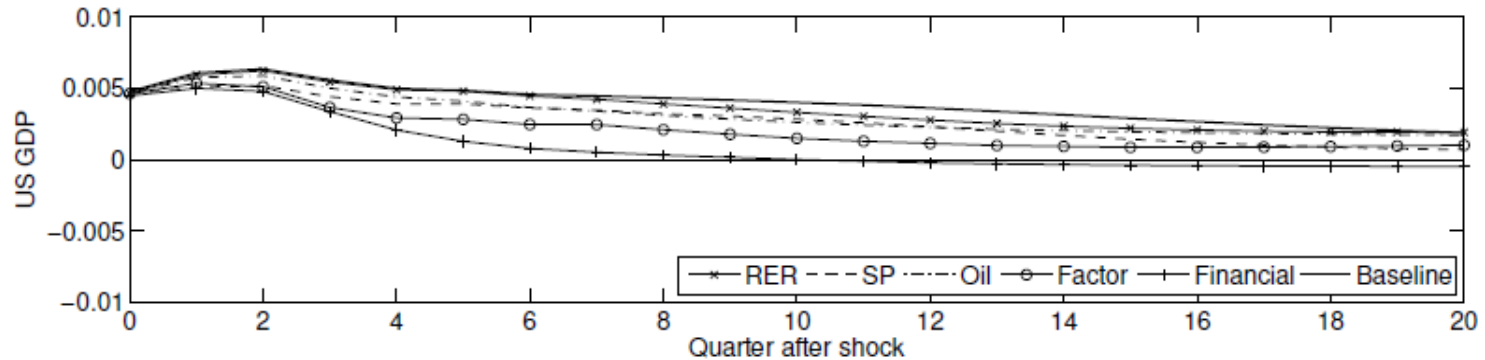
1. TFP surprise (current innovation in TFP)
2. News (future TFP)
- 3. Sentiment (confidence)**

Sentiment is a residual

Identification

1. TFP surprise (current innovation in TFP)
2. News (future TFP)
3. Other shock (monetary, financial...)
4. Sentiment (confidence)

Identification

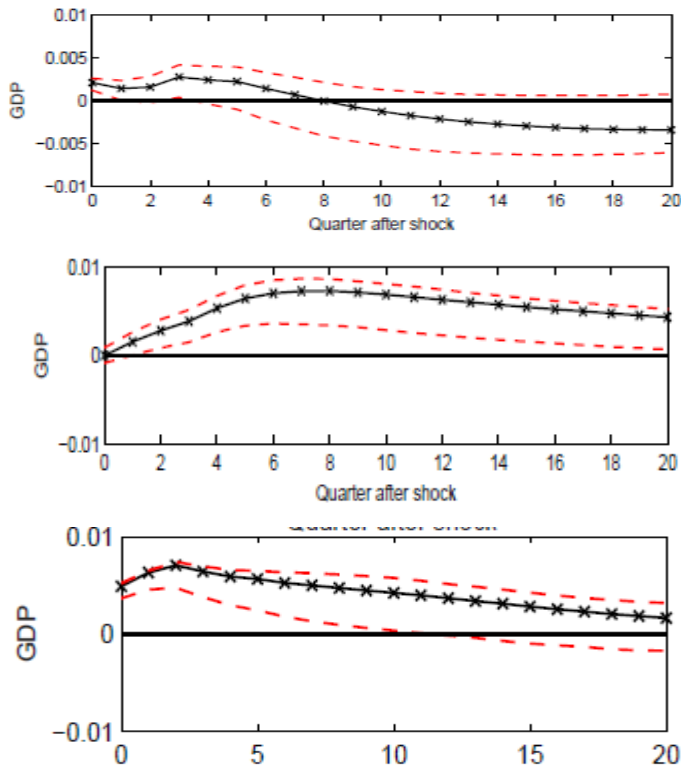


Not clear whether this simply includes additional controls or also identify additional shock

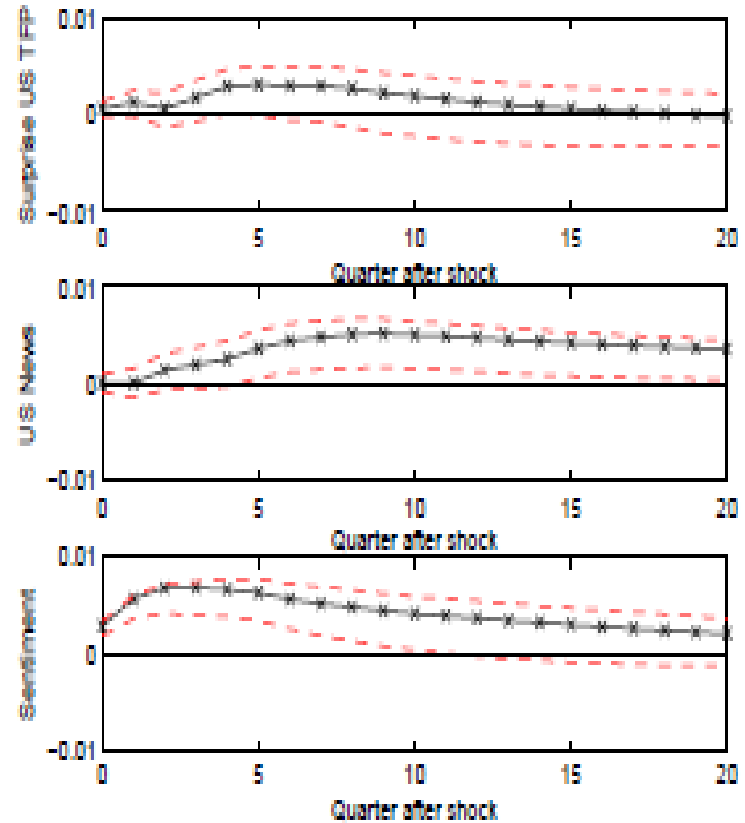
Sentiments as drivers of IBC: Role of shock size versus transmission?

- Canadian GDP react *less* to TFP surprise and news than to sentiment
- Is it because of a smaller comovement or because a smaller shock size?
- US GDP also reacts *less* to TFP surprise and news
- Possible solution:
 - Normalize shock contribution to US GDP
 - Contribution to Canadian GDP?

Sentiments as drivers of IBC: Role of shock size versus transmission?



US



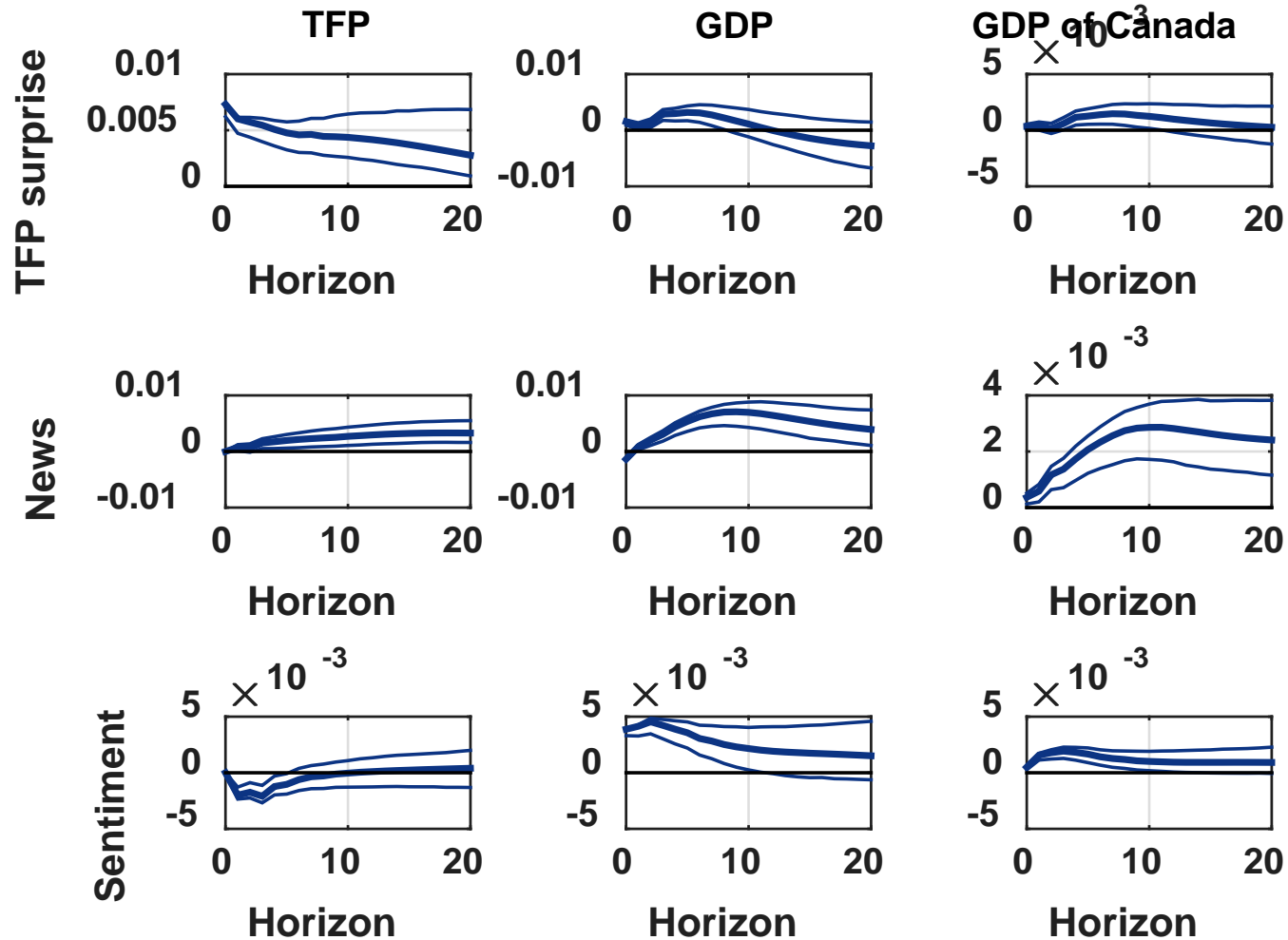
Canada



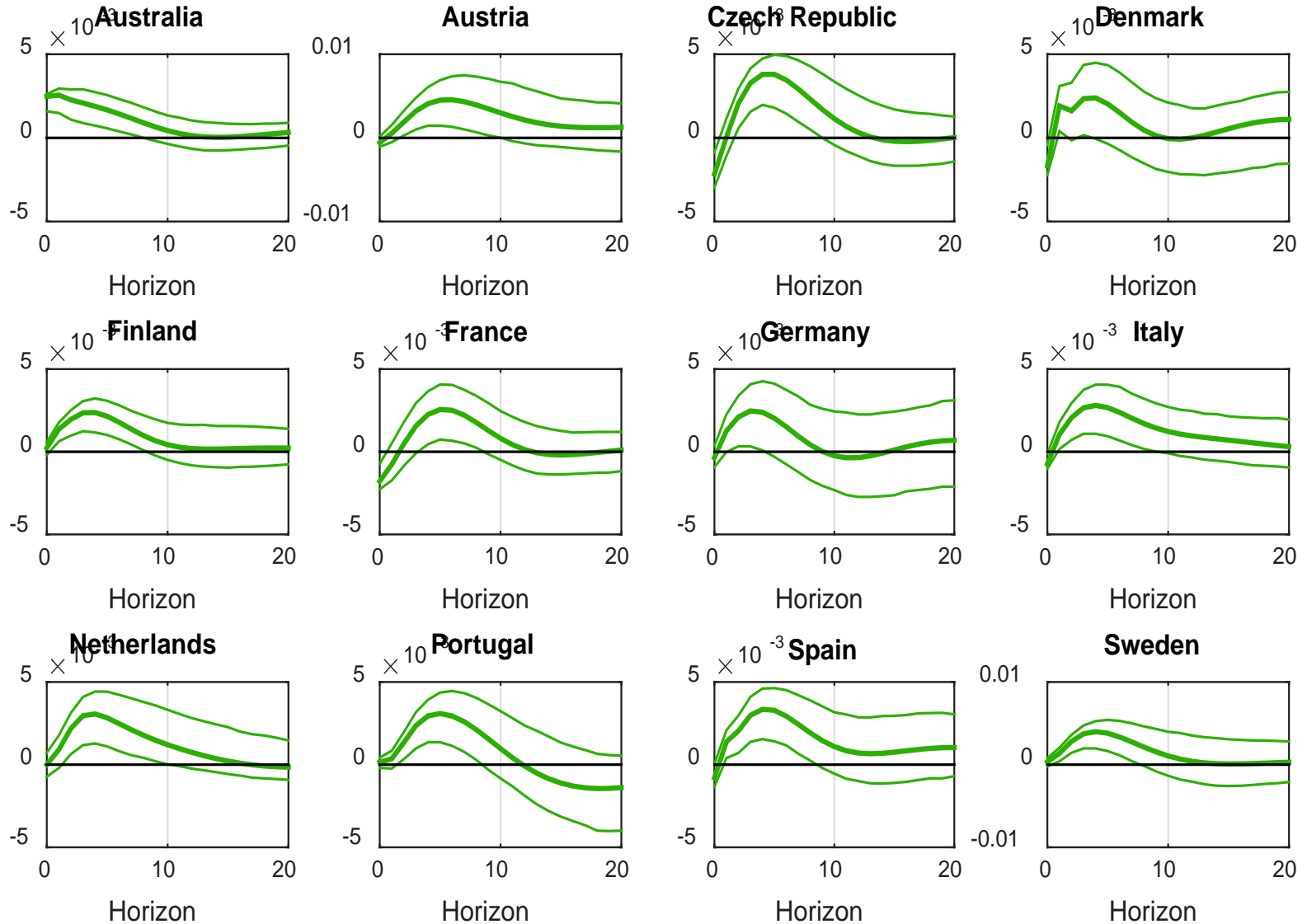
Global or US shock?

- US sentiment shock generates strong co-movement
 - EITHER it is a **global shock**
 - OR, there are strong **international transmission channels**
- **Look at a sample of countries**

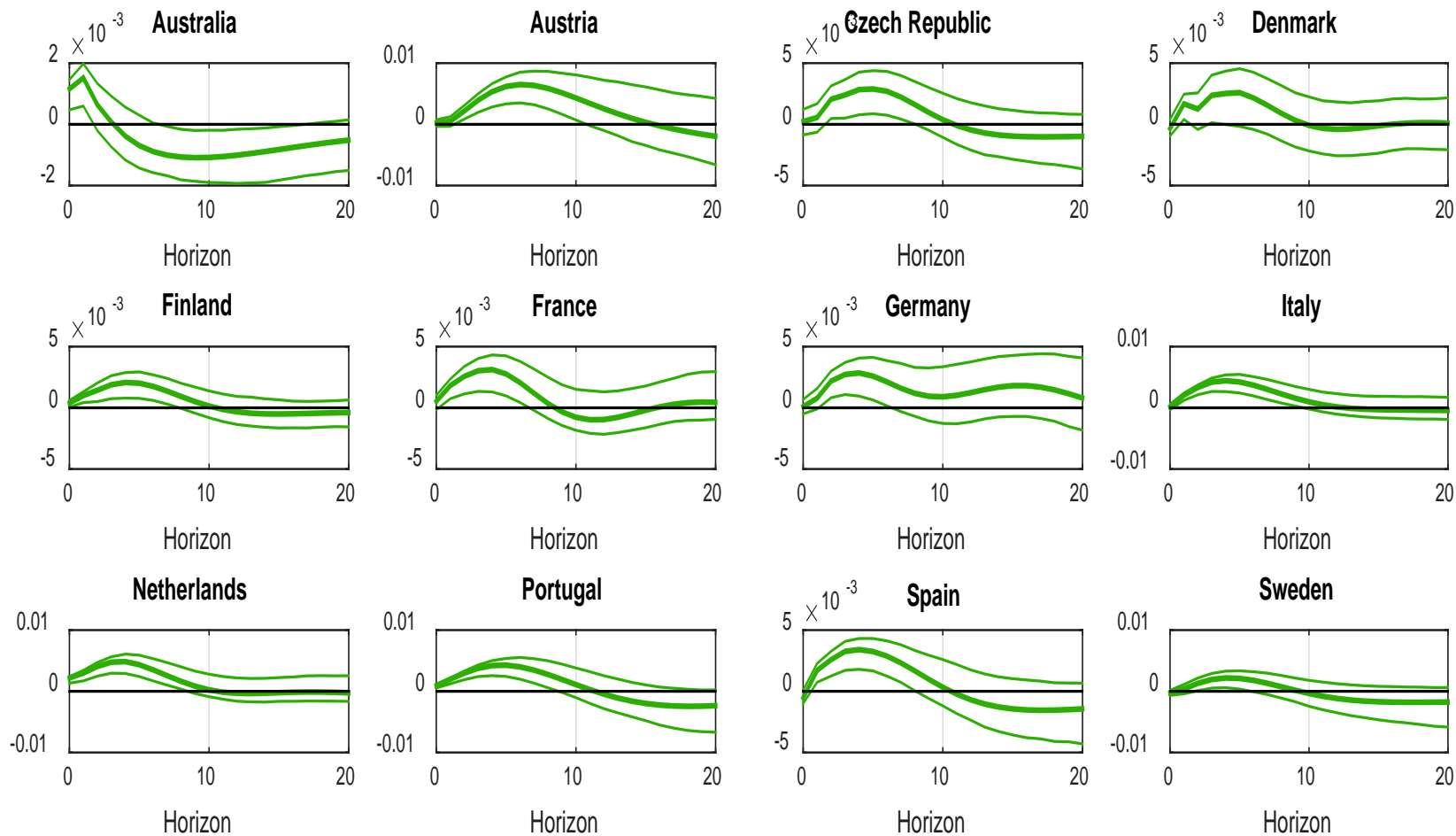
Only Canada



Individual country responses

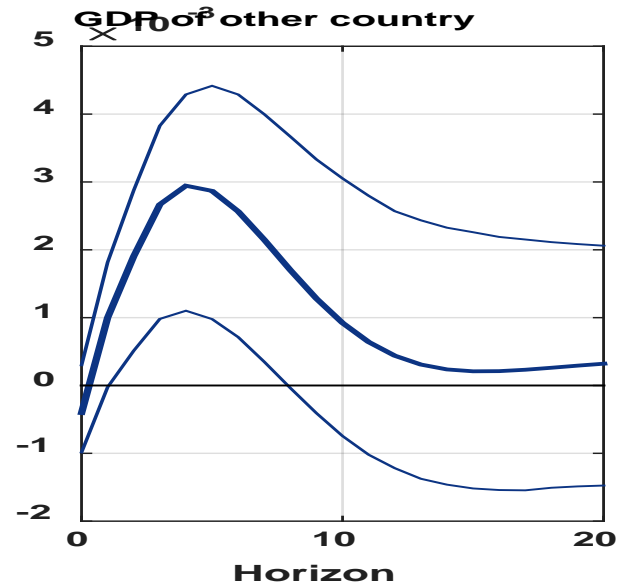
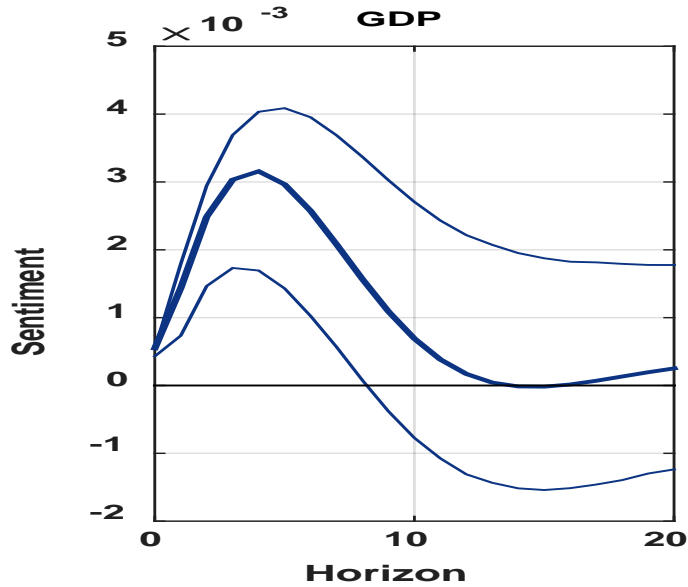


Individual country responses to common shocks

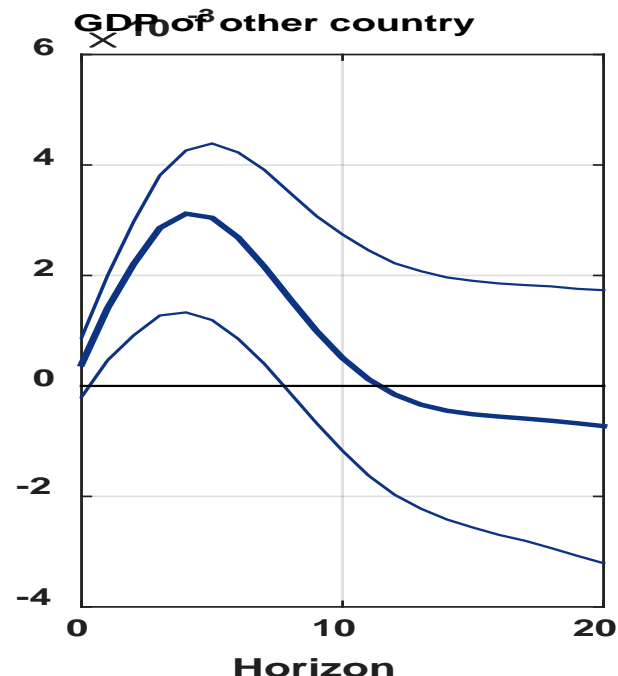
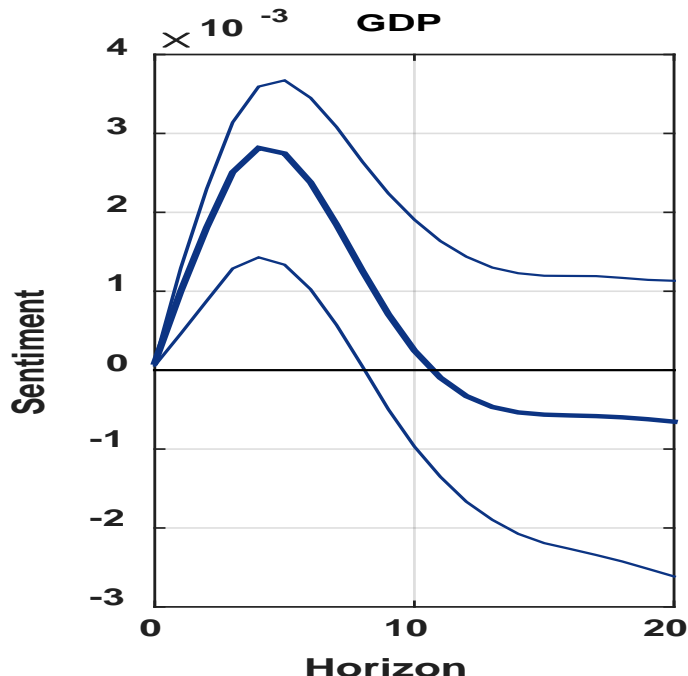




Median responses



To US
shock



To
common
shock

Channel of international transmission

- Theory:
 - (US) Demand-driven transmission
- Trade balance?
- Something else??

Model

- You have the minimum features to get sentiment shocks (out-of-the-shelf)
- Mostly **illustrative** of what is meant by a sentiment shock (noisy signal on fundamentals)
 - Apart from that, what is the purpose?
- Could be taken as a starting point to think of sentiment in an **international setting and in particular about what drives international comovement**



Model

- In a «sentiments» model you typically have:
 - **Imperfect information** on the fundamentals (**crucial**)
 - «undue optimism», noisy signal
 - **Strategic complementarities** (**important for the magnitude**)
 - Role of higher-order beliefs (disconnects the *magnitude* of sentiment shocks from the magnitude of fundamental shocks)
- Lorenzoni (2009), Benhabib-Wang-Wen (2015), Angeletos-La’o (2013), Huo-Takayama (2015) , Gaballo-Chahrour (2016)

Strategic complementarity naturally generates comovement

- Just focusing on Canada:

$$y_{Ct} = \alpha_0 a_{Ct} + \alpha_1 E(y_{USt})$$

- Here, Canada **knows** y_{USt}

→ Conditional on a_{Ct} , $\text{corr}(y_{Ct}, y_{USt}) = \alpha_1$

- The degree of **strategic complementarity** α_1 pins down output correlation (conditional on a_{Ct}), ***whatever the nature of shocks***
- So no difference between US TFP and sentiment
- But a very simple model
 - More complex information structure?
 - RBC-type framework?

The international dimension of information

- Natural assumptions in an international setting?
 - Asymmetric information of domestic and foreign agents on domestic shocks:
 - Here, Canada is better informed on US shocks than the US
 - Wouldn't it be more natural to assume the opposite?
 - Tille-van Wincoop (2014), Albuquerque et al. (2007, 2009), Brennan-Cao (1997)
 - Symmetric access to global shocks and asymmetric access to local shocks
 - But is sentiment a local or a global shock?

In a RBC-type framework

→ Add investment and asset trading

	DBC	IBC
TFP	OK	wrong (investment)
News	wrong (wealth effect on labor)	OK
Sentiment	OK	?



In a RBC-type framework

- Sentiment shock in the US
 - Canada believes the fundamentals of the US are good
 - Effect similar to TFP shock (**wrong**)
 - Canada believes the US are optimistic
 - Effect similar to a demand shock (OK)
- Information structure and strategic complementarities determine the relative size of these effects
- **Would sentiment still generate substantial comovement in a model where TFP doesn't?**

To sum up

- Sentiment shock generates the bulk of output comovement
 - But due to shock size or to comovement?
- But not clear why
 - Global shock? US shock that becomes global?
 - Nature of transmission?
- We need to think about the informational and economic micro-foundations of sentiment shock transmission
- Excellent, thought-provoking paper!