Global Confidence, Uncertainty, and Business Cycles

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Motivation

- Most existing studies on the **confidence** are based on **country-specific** evidence.
  - The role and the nature of **global confidence cycles** are little studied.
- Few studies compare the role of **confidence** and **uncertainty** shocks.
  - The two are not necessarily identical.
- ▶ Research questions:
1. Is there a **global confidence cycle**?
2. What is the **role** of global confidence shock in global macroeconomic and financial cycles?
3. How do we compare the impact of **confidence** to that of economic **uncertainty**?

Methodology

- **Dynamic factor model**: estimates **global variables** of the monthly series

$$D_{i,t} = \beta^*_{D,i} f^*_{D,t} + e_{D,i,t} \qquad (1)$$

- **FAVAR**: investigates the dynamic causality of **global block**:

$$B_0 Y_t = \alpha + \sum_{p=1}^{\tau} B_j Y_{t-p} + \varepsilon_t \qquad (2)$$

- **Identification**: **Cholesky restrictions**, ordering the global confidence indicators *last*. (Economic and financial developments $\overset{o}{\underset{x}{\rightleftharpoons}}$ confidence)

- **Variables** ($D \in \{u, b, c, y, l, \pi, r\}$):
  - Business and Consumer confidence indicators (b, c), and a Uncertainty measure (u)
  - Unemployment rates (l)
  - Industrial output (year-on-year, y)
  - Long-term interest rate (10-year, r)
  - CPI inflation (π)

Future Research

A follow-up work can be extended to
- the domestic transmission of the shocks, or
- the specific distinction of shock natures into "*news*" or "*sentiments*."

Key findings

- The **global** (consumer) **confidence cycles** have played a key role in **global business cycle fluctuations** (over a third of total variations).
- While **global business confidence** shocks are **demand**-driven, **global consumer confidence** seems to reflect both **demand** and **supply** shocks ("*animal spirit*" and "*news*" views).
- **Confidence** acts as an important channel in the **transmission of uncertainty shocks**.

Global confidence cycle

- Global factors of business and consumer confidence identify well **global recessions**.
- The global factors explained 57% and 38% of total variations in business and consumer confidence indicators ("*global confidence cycle*").
- Global consumer confidence leads global business confidence. The cross-country comovement of business confidence is stronger than consumer confidence.
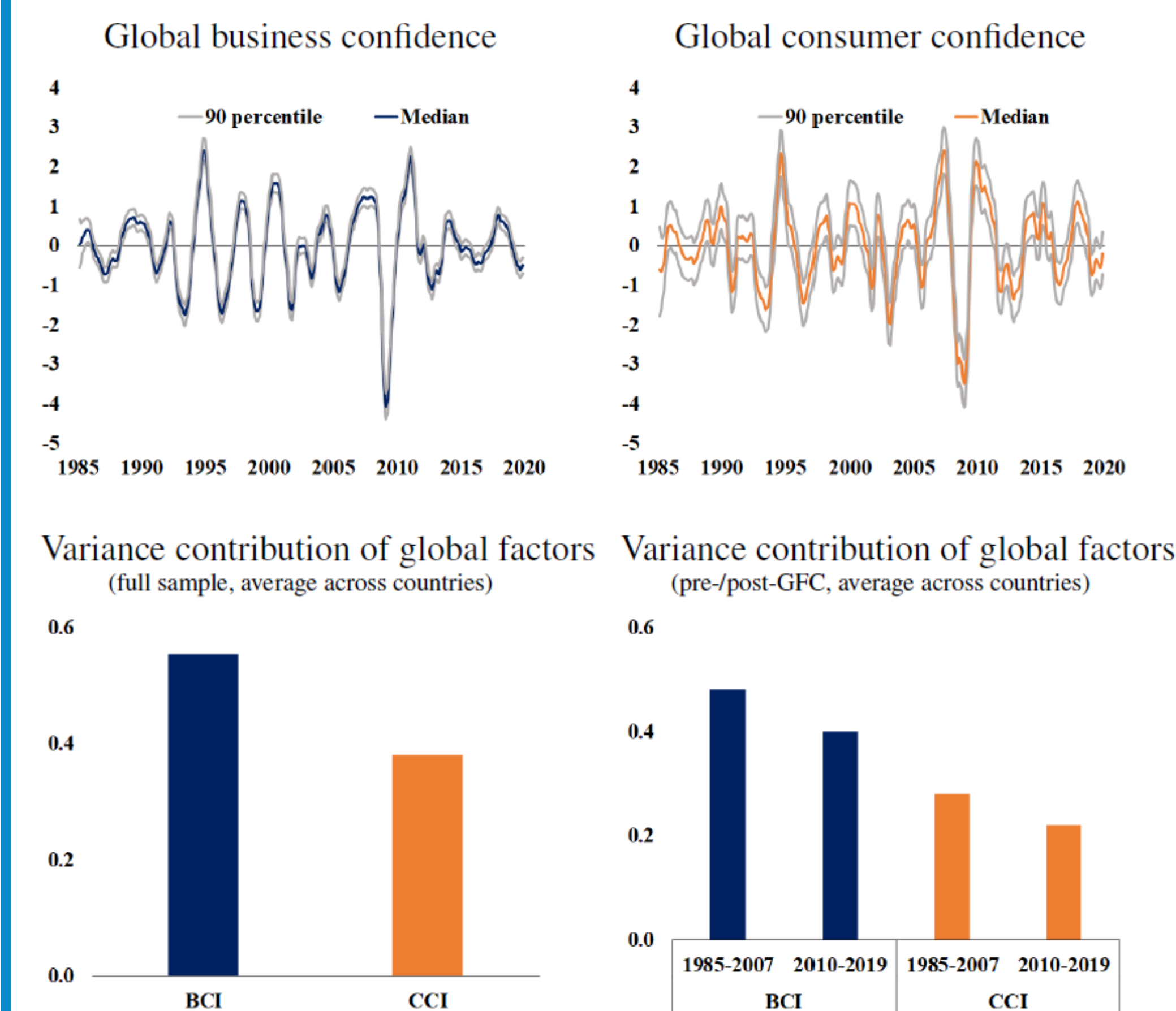
Figure 2: Global business and consumer confidence

References

[1] Levchenko, A. and Pandalai-Nayar, N. TFP, news, and "sentiments": The international transmission of business cycles. *Journal of the European Economic Association*, 18(1):302–341, 2020.

[2] Jarociński, M. and Karadi, P. Deconstructing monetary policy surprises—the role of information shocks. *American Economic Journal: Macroeconomics*, 12(2):1–43, 2020.

Confidence – a driving force of global business cycle

- **Uncertainty shock**: **countercyclical** (production ↓, unemployment rats ↑; *wait-and-see* effect)
  - Confidence acts as a uncertainty transmission channel (VIX ↑ $\overset{o}{\underset{x}{\rightleftharpoons}}$ CCI, BCI ↓)

- **Confidence shock**: **procyclical** (production ↑, unemployment rates ↓)
  - **Business confidence** (BCI): short-lived response → **demand**-side shocks
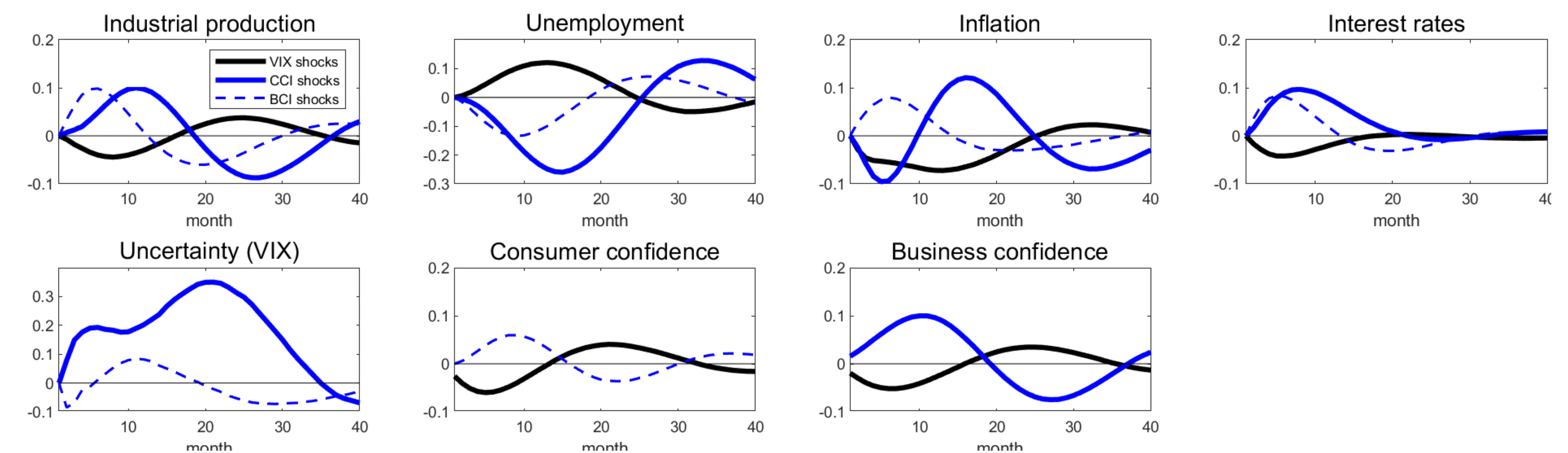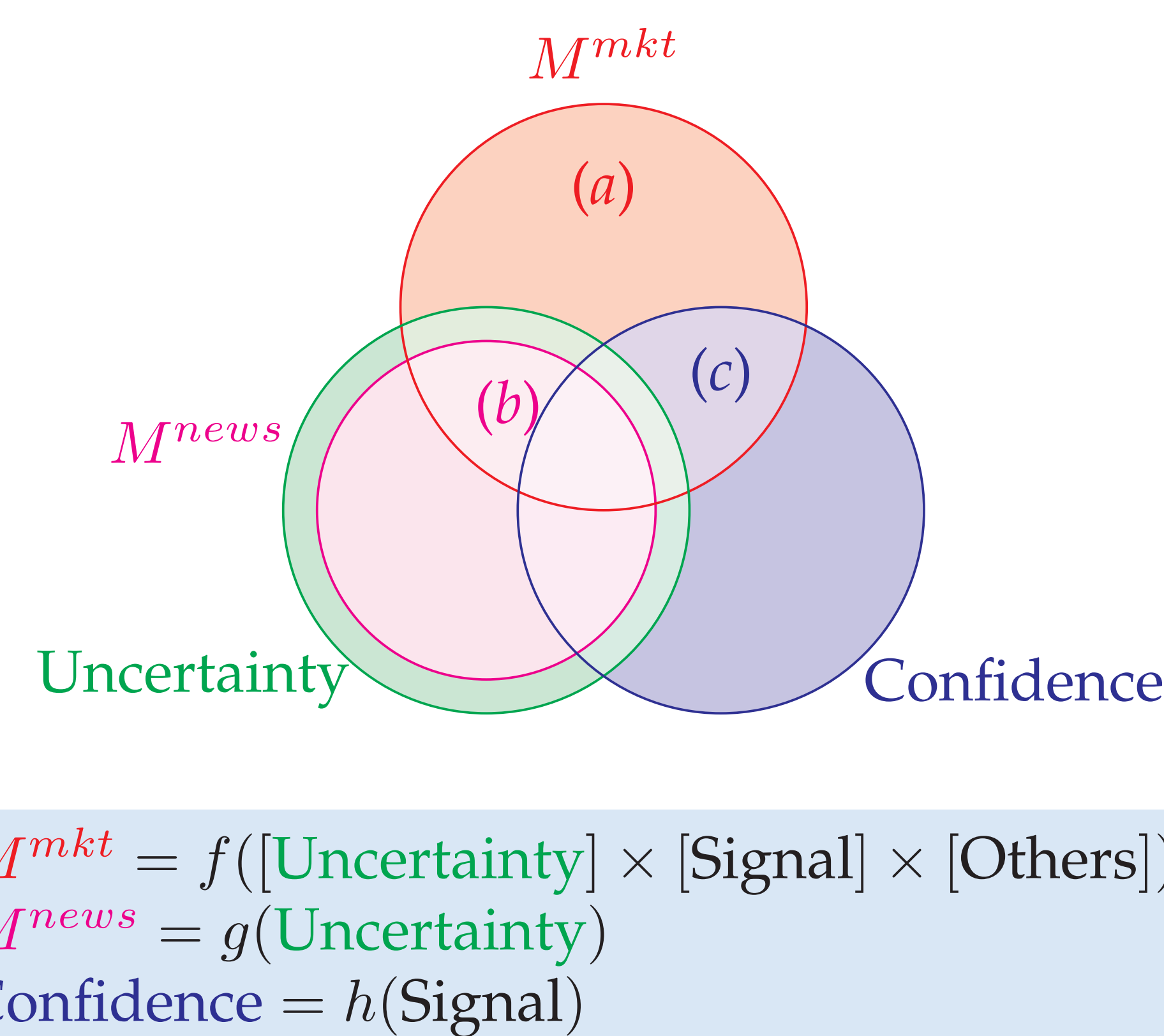 - **Consumer confidence** (CCI): short-lived & disinflationary response → **demand** & **supply** shocks

Figure 1: Impulse responses to uncertainty and confidence shocks (One-standard-deviation increase)

Additional Checks

1. Proxy VAR (with **poor man's approach**)

$M^{mkt} = f([\text{Uncertainty}] \times [\text{Signal}] \times [\text{Others}])$
$M^{news} = g(\text{Uncertainty})$
$\text{Confidence} = h(\text{Signal})$

- f, g: increasing function, h: decreasing function

Separating confidence from uncertainty shocks

(i) Filter out non-informative components (*a*) from the daily shifts of market-based sentiment measures (M^{mkt}, e.g. VIX, gold price).

(ii) The series is disentangled into uncertainty (*b*)- and confidence (*c*)-specific components, using news-based measures (M^{news}, e.g. EPU).

(iii) The daily series are compiled into monthly.

2. Alternative Cholesky ordering

- Ordering the confidence (and the uncertainty) indicators *last* vs. **first**?

3. Different uncertainty measures

- e.g. EPU, Financial uncertainty

▶ The results are all robust.

Disclaimer