Discussion of

"Understanding Global Confidence Cycles"

by J. Ha, R. Huidrom, A. Kose, F. Ohnsorge, N. Sugawar

Ambrogio Cesa-Bianchi (BoE and CfM)

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*The views expressed here do not necessarily reflect the position of the Bank of England.

This paper: 1-slide summary

- **Data** Comprehensive cross-country database on consumer and business confidence.
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  - Simple and VAR-based lead/lag correlations.
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  - Simple and VAR-based lead/lag correlations.
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- **Applications**
  - Forecasting panel regression: Confidence is associated with future movements in macro and financial aggregates.
  - Factor model: Confidence exhibits sizeable comovement across countries.

Why this paper is important

- **Major data contribution** Data set is richer than existing ones. Careful data treatment, focus on cross-country comparability.

- Enables researchers and policy-makers to investigate important issues:
  [1] Confidence as a predictor of economic activity.
  [2] Confidence as transmission mechanism.
  [3] Confidence as a source of business cycle fluctuations.

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- Plan for the discussion:
  - Some comments on [1].
  - Some suggestions on [2]-[3].

[1] Confidence as a predictor of economic activity

- Does confidence help predicting future movements in macroeconomic and financial variables?

- Panel 'pooled' specification with country (j) fixed effects:

$$\nabla^h v_{j,t+h} = \alpha_j + \sum_{i=1}^{p} \beta_i \nabla^h v_{j,t-1} + \gamma C_{j,t} + \varepsilon_{j,t+h}$$

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- **Issue** Panel fixed effect regression assumes homogeneity of the coefficients.
  - Homogeneity in autoregressive dynamics: $\beta_{i,j} = \beta_i$ for all j.
  - Homogeneity in forecasting coefficient: $\gamma_j = \gamma$ for all j.

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- If the true coefficients are heterogeneous the pooled estimates $\hat{\beta}_i$ and $\hat{\gamma}$ are biased.

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- **Suggestion** Compare pooled estimates with Mean Group (MG) estimator [Pesaran and Smith (1995)].
  - Run forecasting regression country by country to get $\hat{\gamma}_j$ and $\hat{\beta}_{i,j}$.
  - Compute average across countries to get $\hat{\gamma}^{MG}$ and $\hat{\beta}_i^{MG}$.
  - If $\hat{\gamma} \simeq \hat{\gamma}^{MG}$ and $\hat{\beta}_i \simeq \hat{\beta}_i^{MG}$ then no heterogeneity, and pooled estimator is more efficient

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ii) Confidence vs. Other predictors

- Does confidence help predicting future movements in macroeconomic and financial variables?
- Many other leading indicators out there.
- Does confidence has predictive power over and above other known predictors of economic activity?

$$\nabla^h v_{j,t+h} = \alpha_j + \sum_{i=1}^{p} \beta_i \nabla^h v_{j,t-1} + \gamma C_{j,t} + \delta X_{j,t} + \varepsilon_{j,t+h}$$

where $\delta X_{j,t}$ is a vector of competing predictors:

  * Slope of the yield curve.
  * Corporate bond spreads.
  * ...

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- Does confidence help predicting future movements in macroeconomic and financial variables?
- In-sample forecasting regression is just another way of showing lead correlations.
- Would be interesting to check out-of-sample forecast accuracy with real time data.
- For example:
  1) Recursive out-of-sample forecasts with many predictors, including confidence.
  2) Same forecasts, dropping confidence from vector of predictors.
  3) Compare root mean square forecast errors in 1) and 2).

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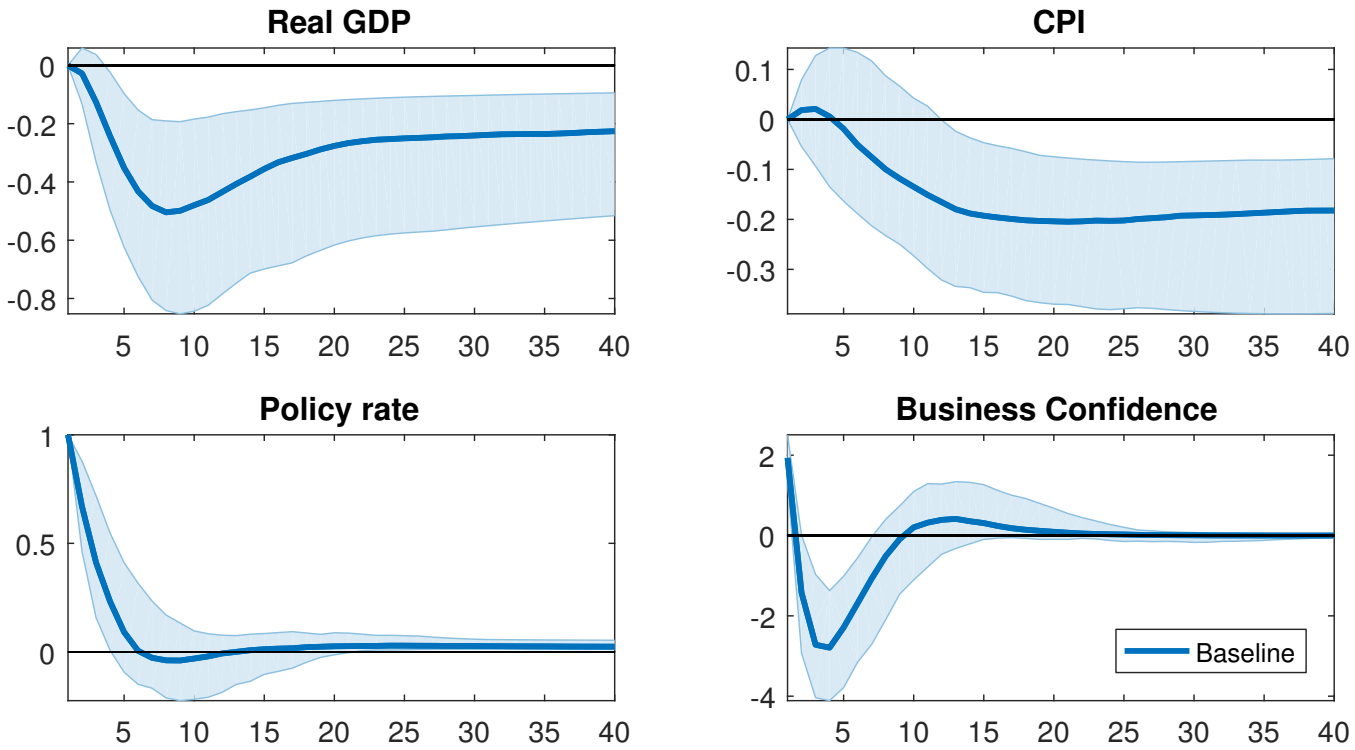

NOTE. VAR(1) model with a constant. Variables are in log-levels. Business confidence is the US ISM purchasing managers index (MFG survey). The counterfactual IRFs are computed by constructing a time series of orthogonalized confidence shocks so as to set the impulse response of confidence to a monetary policy shock zero at all horizons.

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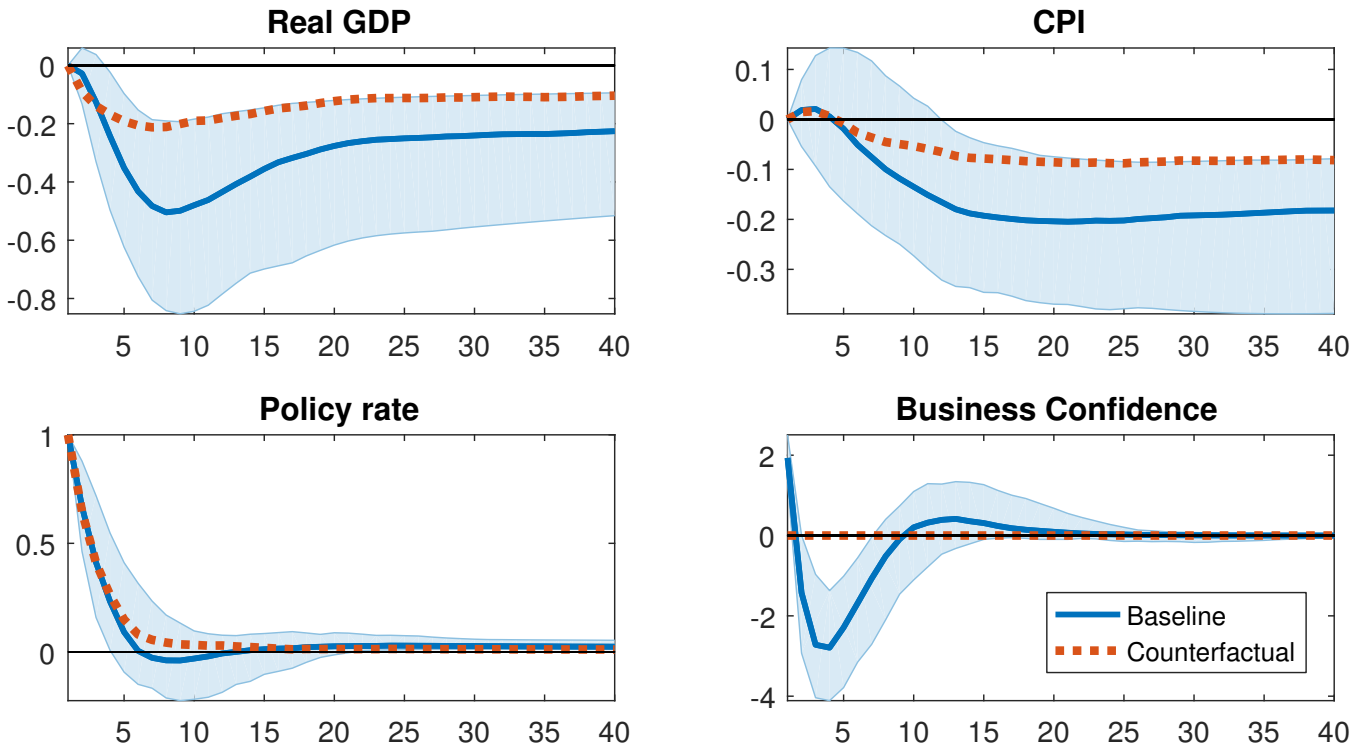

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- Also: confidence could be an amplifier in certain states of the world only (threshold models, non-linearities,...)

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- **Global dimension** Strong cross-country correlation poses an additional identification challenge.

[3] Confidence as a source of business cycle fluctuations

- Simple single-country bivariate VAR:

$$\begin{bmatrix} Y_{it} \\ C_{it} \end{bmatrix} = \begin{bmatrix} \phi_{i,11} & \phi_{i,12} \\ \phi_{i,21} & \phi_{i,22} \end{bmatrix} \begin{bmatrix} Y_{i,t-1} \\ C_{i,t-1} \end{bmatrix} + \begin{bmatrix} u_{it}^{Y} \\ u_{it}^{C} \end{bmatrix}$$

- 'Single-country' mapping from reduced form residuals to structural shocks:

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- Cesa-Bianchi, Pesaran, Rebucci (2018):
  - True for financial uncertainty measures and GDP growth.
  - Also: contemporaneous country-specific correlation vanishes when controlling for a global real factor ($\sim$ world GDP).

Summing up

- Great data effort and interesting stylized facts.
- Global dimension crucial to understand (do not misunderstand) role of confidence for the business cycle.
- Many potentially interesting applications... Looking forward to seeing them!

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