Quantifying Confidence, a Discussion

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Motivation of the Paper

- Several papers modeling shocks to higher-order beliefs in the literature.
- Most of them theoretical.
- Paper's contribution is applied contribution.
- The quantification of a novel type of structural shock to higher-order beliefs, which helps explain multiple salient features of the business-cycles data.

Empirical Approach

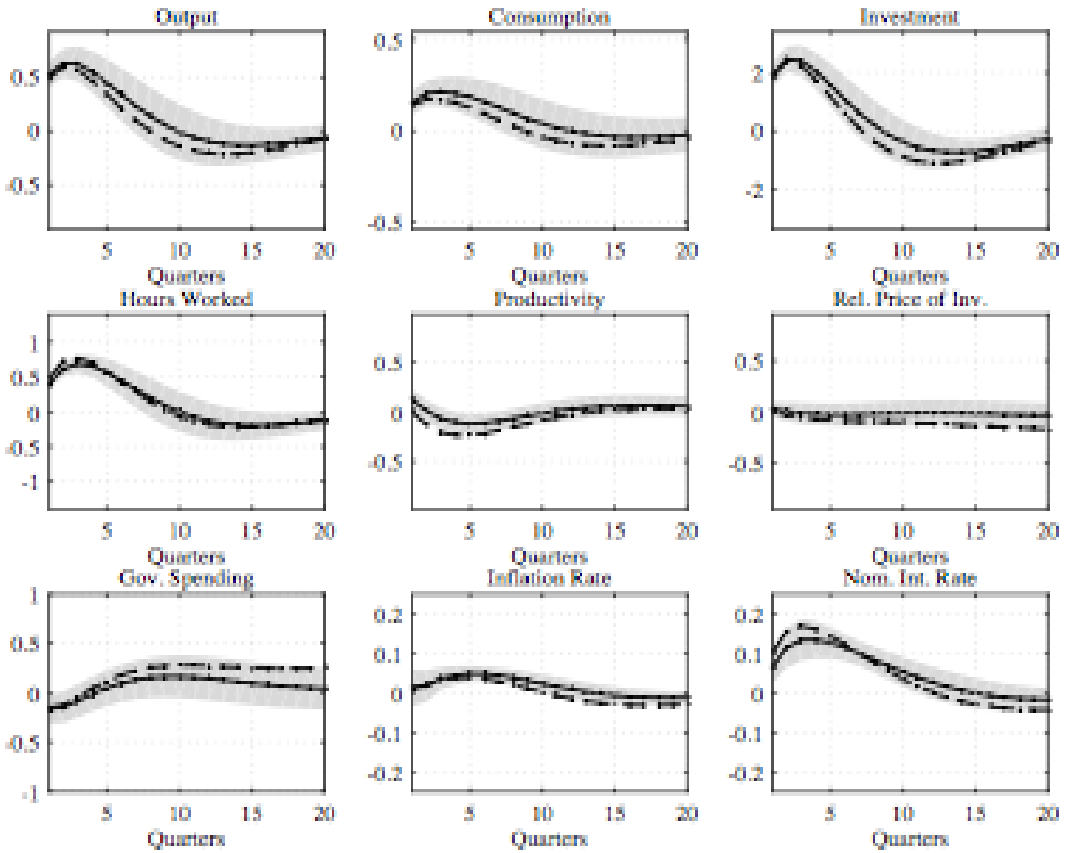
- Authors seek for a linear combination of reduced-form VAR innovations that capture the bulk of the business-cycle variation in the data.
- Then, they ask: What are the empirical properties of such a linear combination?
- Can we build a DSGE model with a structural shock with such empirical properties?
- If the answer is yes, we may give a name to the linear combination of reduced-form VAR innovations.

Empirical Approach Justification

- Their empirical strategy is guided by two simple principles.
  - Their linear combination of reduced-form VAR innovations maximizes the amount of the business-cycle variation in two key variables of interest, namely employment and investment.
  - They claim to bypass the debatable identifying restrictions employed in the Structural VAR literature.
- Let us think about it.
  - Why these two variables? Also debatable.
  - By choosing a linear restriction they are choosing an identification scheme. Why not robust? Sign restrictions.
  - By choosing an identification scheme they are admitting that we can recover structural shocks from a Structural VAR.
  - Then what they find may be a linear combination of other structural shocks.

IRFS implied by their Identification Scheme

Figure 1: IRFs to Main Business-Cycle Factor (US Data)



Note: ——— Baseline specification, with permanent components excluded; ▒▒▒ 68% HPDI;
- - - - Variant specification, with permanent components included.

Is this a new Shock?

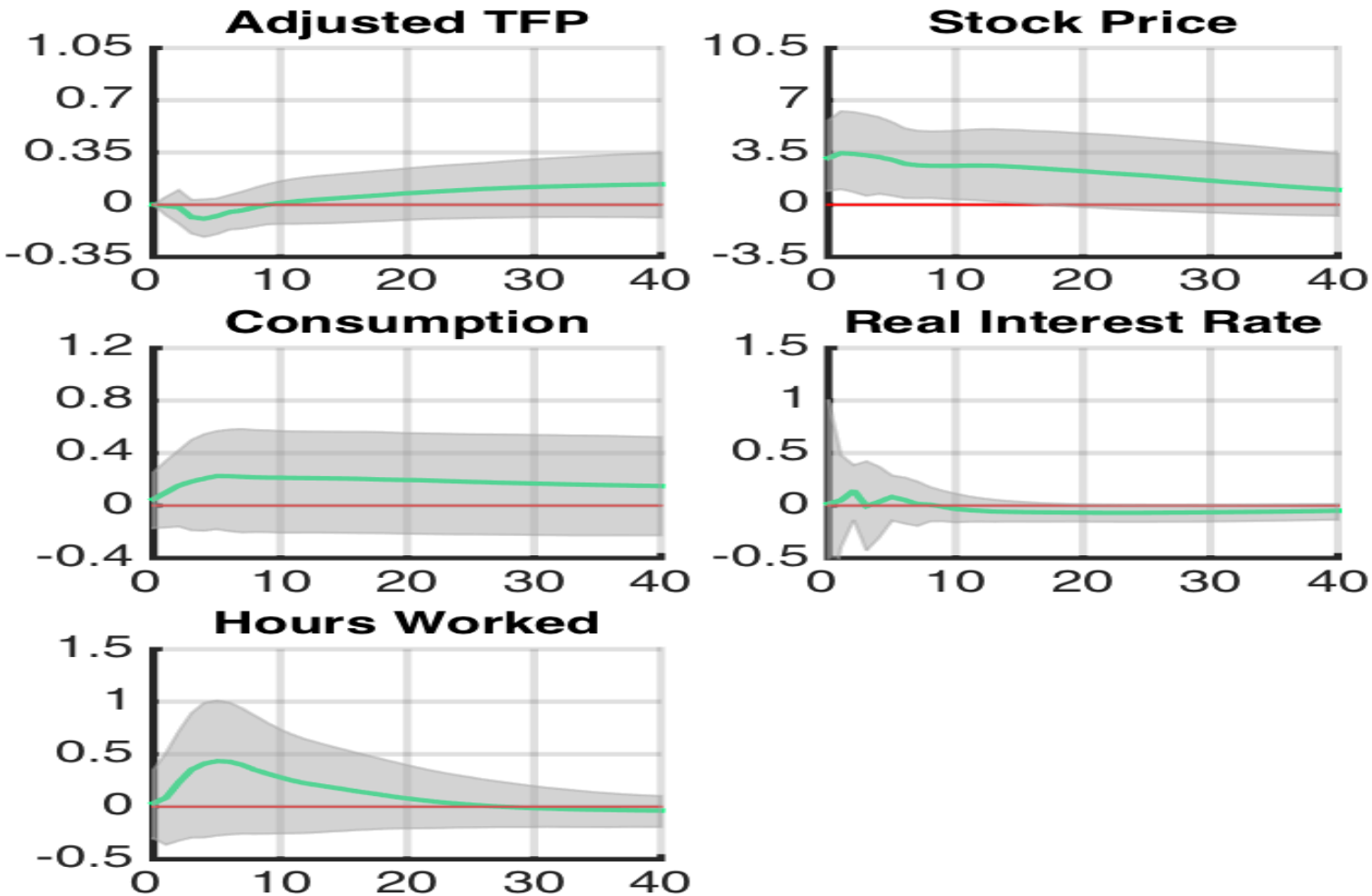
- The authors claim that:
  - It is not a TFP shock (neither exogenous nor endogenous), since little movement is observed in TFP level (I agree).
  - It is not a demand shock, because we know that neither monetary nor fiscal shocks explain too much of the business-cycle fluctuations (I agree) but the authors also claim that monetary shocks do not square well with the counter-cyclical interest-rate movements seen in Figure 1 (counter-cyclical?).
  - It is not an Optimism shock because the effects on TFP (we need to be careful).

Robust Identification Strategy of Optimism Shocks

	Identification
Adjusted TFP	0
Stock Price	+
Consumption	
Real Interest Rate	
Hours	

Table : Beaudry et al. (2012)

IRFS implied by Beaudry et al. (2012)



Is this an Optimism Shock?

- The big difference between both shocks is the permanent component of optimism shock (mainly in TFP).
- More work needs to be done to convince us that it is not:
  - Data as in Beaudry et al. (2012) – include stock price.
    - Use the authors identification scheme.
  - Why maximize movements of hours and investment?
    - Investment is most volatile, then the authors are more likely choosing the shock that maximizes the variance of investment, and this may favor uncovering a more temporary shock.
  - Are the co-integration vectors imposed or estimated?
    - This may matter for long-run behavior and, therefore, for permanent/temporary nature of the estimated shocks.
  - Are the IRFs very different?

Other Minor Comments on the Empirical Part

- The language is very confusing.
- The authors claim that they employ a variant of dynamic factor analysis
- But it seems to me that this is not a factor model.
- This is a SVAR with a particular (not very traditional, it is true) identification scheme.

Missing?

- There are shocks to what I think other people think about fundamentals (higher-order beliefs about fundamentals).
- Which in turn causes changes in what I think about endogenous variables (first-order beliefs about endogenous variables).
- The same happens for all other agents at the same time.
- I find this interesting, but I do find it hard to think of the real-world counterpart of these shocks.
- The long-lasting impact of this work will depend on whether authors convince people that there exists a real-world counterpart of these shocks.
- Survey of what people think of fundamentals and what people think that other people think of fundamentals?