Sentiment Booms Go Wrong

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Two long Traditions in Macroeconomics

Two main ideas in macroeconomics have been widely explored by the literature,

1. **Changes in expectation** uncorrelated with current fundamentals as an important driver of economic fluctuations
   - Incentives to anticipate future economic conditions
     - $\Rightarrow$ Pigou, 1927; Keynes, 1936; Beaudry and Portier, 2006
2. **Excessive optimism** eventually leads to a recession
   - **Unrealized expectations** on future fundamentals
     - $\Rightarrow$ Pigou, 1927; Beaudry and Portier, 2004
   - **Over-accumulation** during booms
     - $\Rightarrow$ von Mises, 1940; Beaudry, Galizia, and Portier, 2018
   - **Euphoria** leads to excessive credit and higher financial fragility
     - $\Rightarrow$ Minsky, 1977; Bordalo, Gennaioli, Shleifer, 2018

This paper

1. We empirically estimate **sentiment shocks** and evaluate their effects on aggregate U.S. variables
    - We define sentiments as unpredictable **changes in expectations** uncorrelated with fundamentals
    - Sentiments shocks trigger **boom-and-bust dynamics** on most macroeconomic variables
    - Sentiments explain more than **40% of output**

2. We write a **general equilibrium model** that rationalizes our empirical findings
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Contributions

1. Novel **identification strategy** using Instrumental Variable Local Projection (IV-LP)
   - Previous literature estimates DSGE models or employ SVAR
     - ⇒ Milani, 2011; Leduc and Sill, 2013; Levchenko and Pandalai-Nayar, 2018; Feve and Guay, 2018
2. Uncover **new dynamics** in response to sentiment shocks
   - **Informative** for the literature on sentiments
     - ⇒ Angeletos and La'O, 2013
   - Consistent with models with **endogenous cyclical dynamics**
     - ⇒ Benhabib and Wang, 2013; Beaudry, Galizia, and Portier, 2019
3. Cycles are also a **high frequency phenomenon**
   - We provide evidence of higher-frequency economic fluctuations
     - ⇒ Angeletos, Collard, and Dellas, 2018
4. Theory that display **conditional boom-and-bust** dynamics
   - Cyclical dynamics are generally designed to be unconditional
     - ⇒ Beaudry and Portier, 2004

Roadmap

1. **Empirical Strategy**
2. Results
3. Test
4. Model
5. Conclusions

Overview of the Econometric Procedure

Following a recent literature which employs instruments to identify macroeconomic shocks, we develop a **2-step procedure**,

1. Build an **instrument** Z_t correlated with changes in expectations and orthogonal to fundamentals
   - $\Rightarrow$ Mertens and Ravn, 2013; Gertler and Karadi, 2015
2. Estimate **dynamic responses** of macroeconomic variables using IV-LP
   - $\Rightarrow$ Jordà, 2005; Kilian and Kim, 2011; Stock and Watson, 2018

Data on Expectations

We use quarterly Survey of Professional Forecasters (SPF) from 1982 to 2018 on,

$$E(X_{t+k}|I_t) = \begin{bmatrix} E(\mathrm{RGDP}_{t+k}|I_t) \\ E(\mathrm{NGDP}_{t+k}|I_t) \\ E(\mathrm{RI}_{t+k}|I_t) \\ E(\mathrm{RC}_{t+k}|I_t) \\ E(\mathrm{IP}_{t+k}|I_t) \end{bmatrix}$$

Empirical Results

Robustness Checks

Test

Takeaway

Model

Conclusions