Exuberant and Uninformed: How Financial Markets (Mis-)Allocate Capital During Booms

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Abstract

- Macro-GE model of information acquisition in financial markets.
- More precise information leads to more efficient allocation of capital.
- Study (non-)fundamental booms ⇔ capital misallocation.

Motivation

- **Finding:** Productivity growth often slows down during asset price booms.
- **Possible Explanation:** Booms discourage information production ⇒ worse capital allocation.
- **This Paper:** Study relationship between booms and capital misallocation:

  (Non-)Fundamental Booms
  ⇒ Information Production
  ⇒ Capital Allocation
  ⇒ Productivity

US Housing Boom and Productivity Growth Slowdown

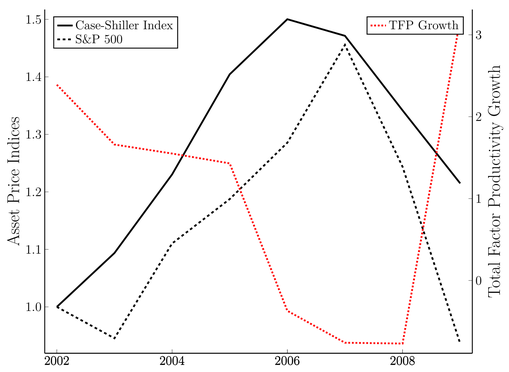

Figure 1: Financial markets are important for the allocation of capital, but do they always work well?

Model Overview

- Households are imperfectly informed about firm productivity.
  ⇒ Acquire noisy information to inform investment decision.
- Financial markets aggregate dispersed information and determine asset prices = investment.
  ⇒ Firms that are *perceived* as more productive receive more capital.
- If households have precise information, asset prices track firm productivity closely.
  ⇒ *Actually* more productive firms receive more capital.
  ⇒ Higher aggregate productivity.
- Fundamental Booms:
  ⇒ Households acquire *more information* if they expect firms to be *more productive*.
- Sentiment Booms:
  ⇒ Households acquire *less information* if they expect assets to be *overpriced*.
- Main friction: Households can take only limited positions.
  - Expected mispricing makes households expect to mostly buy or sell.
  ⇒ Information becomes less useful, lower information production.

Fundamental Boom: Crowding in and Amplification

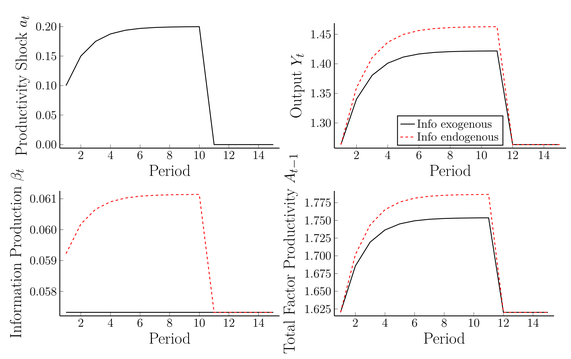

Figure 2: Productivity booms encourage information production, amplifying the boom.

Sentiment Boom: Crowding out and Dampening

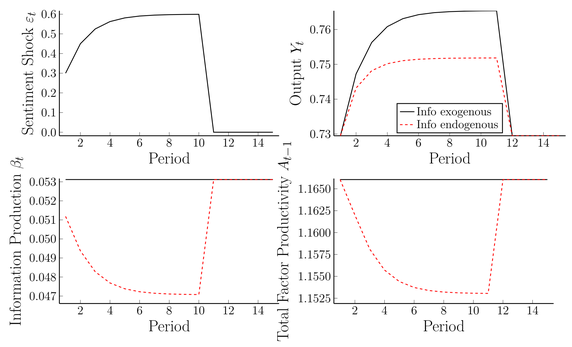

Figure 3: Sentiment booms increase misallocation by discouraging information production, dampening the boom.

Evidence

- Strong correlation between the non-cyclical components of price informativeness and aggregate productivity growth.
- Through the lens of the model:
  - Synchronous *increase* during the dot-com boom: fundamental boom.
  - Synchronous *decrease* during the housing boom: sentiment boom.

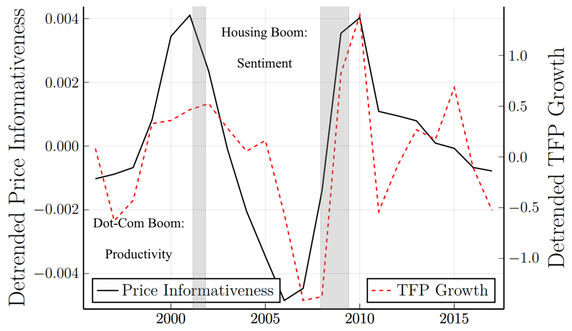

Figure 4: Detrended Price Informativeness (Dávila and Parlatore 2021) and TFP Growth (San Francisco Fed) for the United States.

Policy

- Policymakers can separate fundamental from sentiment booms by looking at return synchronicity.
- Sentiment boom: less information production ⇒ stocks behave more similarly. No winners or losers.
- Fundamental boom: asset prices increase, but still winners and losers ⇒ price discovery/information production still takes place.

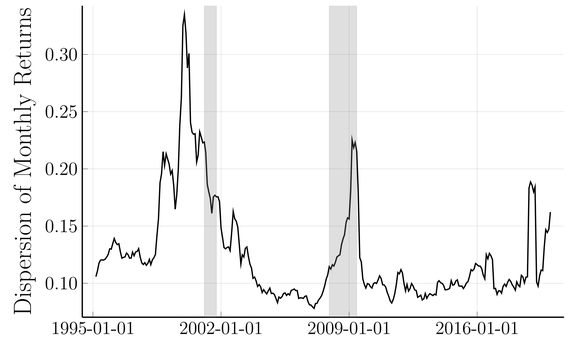

Figure 5: Return dispersion was high during dot-com boom leading up to 2001, but low during the housing boom.

Conclusion

I develop a tractable macroeconomic model with information production in financial markets. Precise information is important for the allocation of capital and therefore aggregate productivity. In this setting, not all booms are alike:

- Productivity booms *decrease* misallocation by *encouraging* information production.
- Sentiment booms *increase* misallocation by *discouraging* information production.

Rationalises dichotomy of "good" and "bad" booms as in Gorton and Ordoñez (2020).