

Trading Frenzies and Real Effects

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Structure

1. **Trading Frenzies:** Definition, recent events
2. **Analyzing Recent Events through the Lens of a Model:** Goldstein, Ozdenoren, and Yuan (2013)
3. **Big Picture:** Corporate finance and financial markets

1. Trading Frenzies

Trading Frenzies

- Trading Frenzies arise when speculators rush to trade in the same direction causing large pressure on price
- Such frenzies rattled financial markets recently, generating calls for big changes in market regulation
 - GameStop is the most talked-about example, but other stocks experienced similar patterns
- Concerns are mostly raised about price volatility, causing many to suffer big losses, but is this a major concern?

Implications for Capital Allocation

- Maybe more interesting are the effects such frenzies might have on capital allocation in the real economy
- Capital allocation is, after all, the main function of financial markets
- We can broadly talk about two channels:
 - “Primary market” channel: firms raise capital directly in the market
 - “Secondary market” channel: market prices provide signals that guide decisions by stakeholders – managers, lenders, customers, suppliers, employees, regulators, etc. – in the real economy

- For both channels, prices play a critical role in assuring that the right investments are being made
- Recent events demonstrated the fast feedback effects frenzies might have on the real economy:
 - AMC Entertainment actively raised new capital based on attractive prices which seemed to have no relation to fundamentals
 - This was critical for AMC's survival enabling it to avoid bankruptcy
 - American Airlines, had a similar, perhaps less dramatic, experience
- These cases were mostly celebrated as uplifting side effects, but are they?

2. Analyzing Recent Events through the Lens of a Model

A Model of Trading Frenzies and Its Real Effects: Goldstein, Ozdenoren, and Yuan (JFE, 2013)

- Market prices both affect and reflect firms' investments and cash flows
- Feedback loop alters financial-market speculators trading incentives
- Timeline
 - $t = 0$: Speculators trade and the firm's stock is priced
 - $t = 1$: Capital providers make real investment decisions in the firm
 - $t = 2$: Cash flow is realized; all agents receive their payoffs

Information Structure

- Dispersed information about firms' fundamentals (standing for productivity, profitability)
- Each speculator observes two signals:
 - Private signal with precision τ_s (originating from research, experience)
 - Common signal with precision τ_c (originating from posts on internet forums)
- Capital providers observe private signals with precision τ_l and also observe the endogenous price P

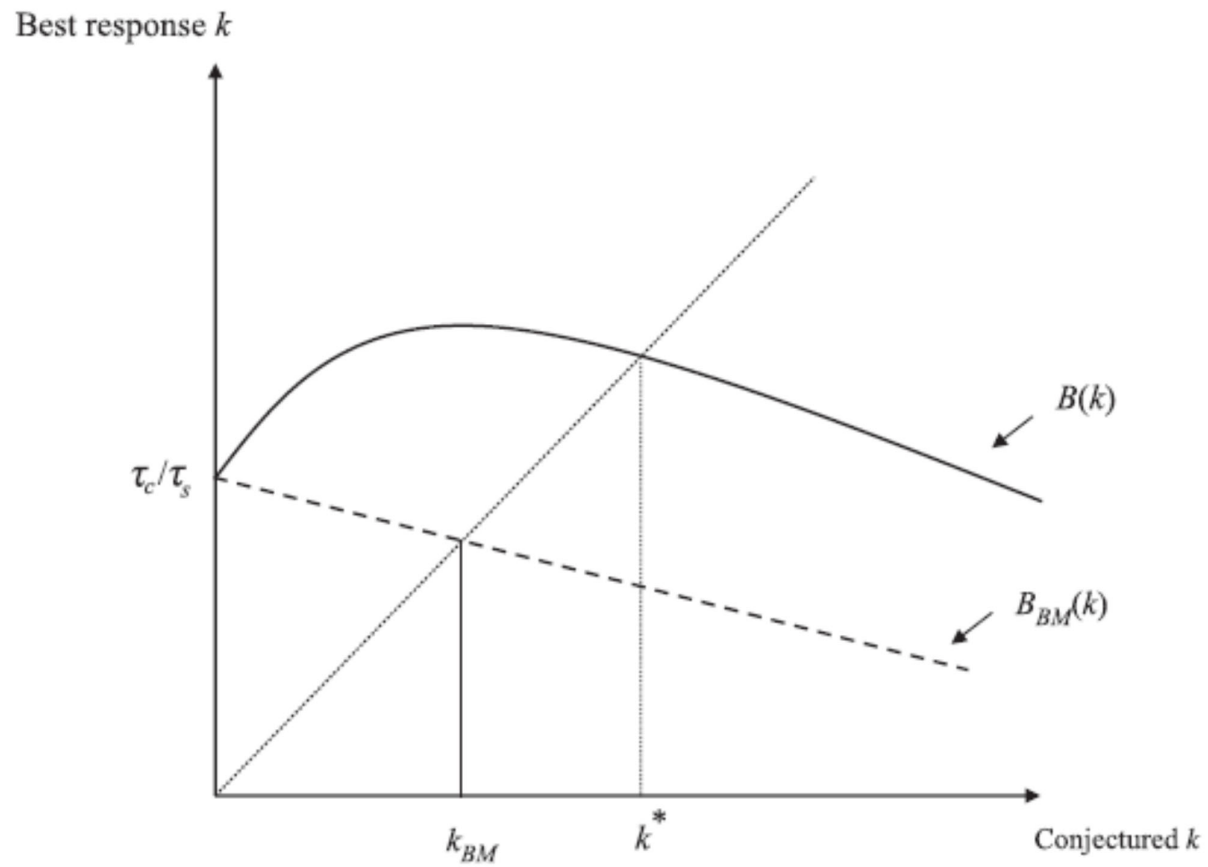
Equilibrium

- Speculators choose trading based on two different signals
- Prices set based on market clearing, considering speculators' trading and noise trading
- Capital providers make real investment decisions based on signals and price
- Key object of equilibrium characterization: k
 - Relative weight speculators put on common signal vs. private signal
 - High k reflects a trading frenzy; they all want to trade like each other

Results

- Trading patterns (characterized by k) are determined by signal precisions and strategic interactions
- Strategic substitutes: usual price mechanism
 - When speculators put weight on common signal, it is strongly reflected in the price, and the incentive to put weight on it decreases
- Strategic complementarities: due to feedback effect
 - When speculators put weight on common signal, it is strongly reflected in firm's cash flow, and the incentive to put weight on it increases

- The equilibrium k^* reflects both forces on top of the precisions of both signals:
 - Without strategic interactions, $k = \tau_c/\tau_s$; ratio of precisions
 - In a benchmark model without feedback, $k = k_{BM} < \tau_c/\tau_s$
 - In our model with feedback, and when the market is sufficiently liquid,
 $k = k^* > \tau_c/\tau_s$
- Feedback effect from prices to cash flows provides fuel to a frenzy:
 - If an increase in stock price improves the firm's financial standing, everyone wants to buy when others are buying, and vice versa



Comparative Statics

- Frenzies, k^* , increase when
 - Capital providers' or speculators' private signals are less precise
 - Speculators' common signal is more precise: “A large volume of activity in such [internet] forums could suggest that speculators have more common information than private information and so trading frenzies become more likely to occur”
- k^* decreases when there is more noise trading
 - Capital providers rely less on the price, and so feedback effect weakens and there is less coordination among speculators

Efficiency

- In general, trading frenzies could be efficient, as the coordination on common information can overcome other sources of inefficiency
- But, frenzies can also be inefficient because they bring the noise in the common signal to prices and capital allocation
- Overall, speculators' incentives in equilibrium are not aligned with efficiency:
 - Equilibrium forces push them to trade like each other when it is undesirable that they do so

Back to Recent Events

- Warning bells from AMC episode:
 - Feedback effects provide fuel to trading frenzies, pushing prices further away from fundamentals
 - In general, the forces behind frenzies do not align with efficiency of capital allocation
 - While a firm escaping bankruptcy is uplifting to many; consider frenzies in the opposite direction – bear raids depriving firms of capital– they can be ignited by similar forces

3. Big Picture

Corporate Finance and Financial Markets

"In certain circumstances, financial markets can affect the so-called fundamentals which they are supposed to reflect." **George Soros**

- Corporate Finance:
 - Firms raise capital, invest, employ, produce, and provide services.
This is the real economy
- Financial Markets:
 - Traders trade securities, prices are formed
- New Paradigm: Financial market prices reflect and affect the fundamentals in the real economy

Many Implications

- With a feedback loop between market prices and firms' cash flows and fundamentals, many new implications arise for markets and corporate finance
- The trading-frenzies model is one example
- Other insights:
 - Disconnect between market efficiency and real efficiency: Bond, Edmans, and Goldstein (2012)
 - Impediments for the arrival of bad news to the market: Edmans, Goldstein, and Jiang (2015)
 - Good disclosure vs. bad disclosure: Goldstein and Yang (2019)

Empirical Evidence

- Some Evidence:

- Luo (*JF*, 2005) – Mergers are more likely to be canceled when prices react more negatively and managers are trying to learn

- Chen, Goldstein, and Jiang (*RFS*, 2007) – Price informativeness affects investment sensitivity to price

- Foucault and Fresard (*RFS*, 2012) – Cross listed firms exhibit stronger sensitivity of investment to price

→ Financial markets are not a **side show**

There is a lot more to explore!

Thank you!