

# Week 5: Microstructure and Asset Pricing

## Empirical Asset Pricing

**Jun Pan**

**Shanghai Advanced Institute of Finance  
Shanghai Jiao Tong University**

**December 22, 2020**

# Market Microstructure

- Price discovery: How information transmits and impounds into market prices.
  - ▶ Grossman (1976): Costly information and the importance of noise in the price system.
  - ▶ Grossman and Stiglitz (1980): The information content of price when information is costly.
- Transitory price movements, bid/ask spreads, and liquidity.
  - ▶ Inventory risk: Ho and Stole (1981).
  - ▶ Information asymmetry: Glosten and Milgrom (1985) and Kyle (1985).
- Motives for trading:
  - ▶ Private information.
  - ▶ Difference in preferences or beliefs.
  - ▶ Difference in endowments: hedging needs.

- Roll (1984): Orange juice futures and weather forecast.
- Roll (1984): Price reversal and bid-ask spreads.
- Glosten and Harris (1988): Components of bid/ask spreads.
- Lee and Ready (1991): Inferring trade direction from intraday data.
- Campbell, Grossman, and Wang (1993): Price reversal after high trading volume.
- Hu, Pan, and Wang (2017): Tiered information disclosure.

# High Frequency Trading

- Market fragmentation.
- The race to speed.
- Algo trading.
- Flash crashes: 2010-5-6 Stock and 2014-10-15 Treasury.

# Measuring Market Liquidity

- Equity.
- Corporate Bonds.
- Treasury Bonds.
- Options.