



FEDERAL RESERVE BANK  
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Cambridge  
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for Alternative  
Finance



UNIVERSITY OF  
CAMBRIDGE  
Judge Business School



## New Directions in Research on Blockchain and Cryptocurrencies

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# RFS FinTech Initiative

- In late 2016, there was very little academic research on FinTech, including blockchain, cryptocurrencies, ICOs, etc.
- The editors team of the Review of Financial Studies decided to make concerted editorial push to stimulate research on the topic
- We adopted a novel editorial protocol based on the “Registered Reports” format; Shifting risk from the researchers to the journal
- We received 156 proposal submissions, leading to a special issue with 10 papers that appeared in May 2019

# Current Research

- There is no longer a problem of scarcity of research on FinTech, including blockchain, cryptocurrencies, ICOs, etc.
- Two follow-up conferences co-sponsored by RFS and Georgia State have generated huge interest and submission flows
- Constant flow of papers on these issues submitted to the RFS in the regular channels
  - Good mix between theoretical and empirical analyses
- What are the main perspectives addressed by the finance profession on these issues?

# Research Perspectives (I)

- The blockchain protocol
  - Identifying inefficiencies and design issues that affect the viability of the trading process and some of its consequences
  - Research at the intersection of finance and computer science
  - Examples:
    - Biais-Bisière-Bouvard-Casamatta: Coordination problems in the blockchain process
    - Easley-O'Hara-Basu: Transaction fees in bitcoin
    - Saleh: Alternative protocols
    - Cong-He-Li: The organization of the mining process
    - A couple of papers on this panel

# Research Perspectives (II)

- The implications of blockchain for the real economy
  - Can blockchain trading and blockchain-based securities and coins solve (or aggravate) problems in real-economy transactions and contracts?
  - Research builds on corporate finance and industrial organization
  - Examples:
    - Cong-He: The effect of smart contracts on firms' interactions
    - Howell-Niessner-Yermack: Empirical analysis of ICOs and real outcomes
    - Li-Mann / Sockin-Xiong: ICOs help coordination in platform adoption
    - Chod-Lyandres: ICOs as a tool in incentivizing entrepreneurs
    - Goldstein-Gupta-Sverchkov: ICOs as commitment to competitive platform

# Research Perspectives (III)

- Asset market properties of cryptocurrencies
  - Analyzing the properties of cryptocurrencies as an asset class and how they fit in investment portfolios
  - Research builds on asset pricing and monetary economics
  - Examples:
    - Liu-Tsyvinski: Empirical patterns in risk and return of cryptocurrencies
    - Cong-Li-Wang: Feedback between users' adoption and cryptocurrency price
    - Schilling-Uhlig: Interaction between fiat money and cryptocurrency
    - One paper on this panel

# Summary

- Economic research on blockchain, cryptocurrencies, and ICOs is now thriving
- Different perspectives borrow from and build on computer science, corporate finance, industrial organization, asset pricing, and monetary economics
- There is a good mix of theory and empirical work
- There are many good reasons to think that this trend will continue and be supported by robust real-world activity
  - In 2016, 52 ICO collectively raised about \$283 million in this nascent market
  - Only two years later, in 2018, over 3,800 ICOs raised close to \$29.7 billion, which is almost 90% of the size of the IPO market that year
- But, there is also room for caution, because the long-term viability of these instruments is still not clear