

# EDWIN HU

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Securities and Exchange Commission  
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## RESEARCH AND INTERESTS

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Financial markets regulation, market microstructure, financial intermediation, causal inference.

## EXPERIENCE

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June 2016–Present: Financial Economist Fellow  
Securities and Exchange Commission, Washington, D.C.  
[Division of Economic and Risk Analysis](#)

- I study the economic implications of rulemaking on financial markets.
  - I led the Staff Speed Bump Report responding to [Commission Interpretation Regarding Automated Quotations Under Regulation NMS](#).<sup>1</sup>
  - I conducted independent research responding to [Order Instituting Proceedings to Determine Whether to Approve or Disapprove a Proposed Rule Change to Introduce Bats Market Close, a Closing Match Process for Non-BZX Listed Securities Under New Exchange Rule 11.28](#).<sup>2</sup>
- I am involved in modernizing the Commission’s technology infrastructure through data science and cloud-computing initiatives.
  - I led the development of the DERA Open Source Analytics Server (R/Python Jupyter Notebook environment with custom environment support).
- I coordinate with SROs to acquire and construct regulatory datasets.
  - FINRA off-exchange trade executions reported to the Trade Reporting Facilities.

## EDUCATION

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2010–2016 [Rice University](#)

- Ph.D, M.A. [Finance](#). Jones Graduate School of Business.

2006–2010 [University of Washington](#)

- B.S. [Applied and Computational Mathematical Sciences](#).
- B.S. [Economics](#) *Cum Laude*.

## WORKING PAPERS

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Intentional Access Delays, Market Quality, and Price Discovery: Evidence from IEX Becoming an Exchange *Coming Soon*

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<sup>1</sup>Release No. 34-78102; File No. S7-03-16.

<sup>2</sup>Release No. 34-81437; File No. SR-BatsBZX-2017-34.

- **Revise and Resubmit Journal of Financial Economics**
- Presented at Rice University (2015), Texas A&M (2015\*), Multinational Finance Society Conference (MFS, 2015\*) **Best Paper Award**, China International Finance Conference (CICF, 2015\*), Society of Financial Econometrics Conference (SoFiE, 2015\*), Instituto Tecnológico Autónomo de México Conference (ITAM, 2015\*), American Finance Association Conference (AFA, 2016), University of Washington (2016\*), University of Virginia (McIntire) (2017\*), Southern Methodist University (2017\*).

We show that the PIN model is no more useful in identifying private-information arrival than simply looking at whether turnover is above average or not. This calls into question PIN as a measure of private information since turnover varies for many reasons unrelated to private-information arrival. We also examine an alternative to the PIN model, the Odders-White and Ready (2008) model. Our tests indicate that measures of private information based on the Odders-White and Ready (2008) model are promising alternatives to PIN.

- **Revise and Resubmit Journal of Financial Intermediation**
- Presented at Rice University (2012\*), Financial Management Association Conference (FMA 2013), Securities and Exchange Commission (SEC, 2014\*), Fordham University (2014\*), University of Cincinnati (2014\*), University of Kentucky (2014\*), Yale School of Management (2015\*).

We document a positive effect of financial integration on economic growth. Using US state-by-state financial deregulations, we find that economic growth occurred in states where bank deregulation solved a capital immobility problem. We use a matching method that constructs synthetic counterfactual states to identify the channels that link bank deregulation to financial integration, and thereby to economic growth. Our results reveal a correlation between financial integration and subsequent banking sector changes including improved bank efficiency, better lending and borrowing rates, and an expansion in loan recipients. We show that financial integration democratizes lending and spurs economic growth.

## WORK IN PROGRESS

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Information Diffusion in Institutional Investor Networks

## POLICY WORK

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[Bats Market Close: Off-Exchange Closing Volume and Price Discovery](#)

- First SEC economic analysis to use regulatory audit trail and TRF data.
- Led to NYSE cutting its top tier MOC fees by two-thirds.

We analyze the correlation among closing price discovery and closing price efficiency—two established metrics from the academic finance literature—with off-exchange trading activity at

the close. We analyze equity securities trading and quotation data during the first quarter of 2017 to determine the amount of closing auction volume, the amount of off-exchange Market-on-Close (MOC) activity, and estimates of closing price discovery and efficiency.

Tick Size Pilot Program and Market Quality *with Paul Hughes, John Ritter, Patti Vegella, and Hao Zhang*

## PROFESSIONAL SERVICE

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- SEC Quant Brown Bag co-coordinator (2016–Present)
- DERA Cybersecurity Working Group (2017–Present)
- CICF Hangzhou 2017 discussant
- FMA International 2016 program committee
- FMA Chicago 2013 discussant

## SKILLS

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Data analysis, financial econometrics, high performance scientific computing, parallel computing, data visualization, causal inference.

Python, SAS, STATA, SQL, R, bash, git

## CITIZENSHIP

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USA (Born)

## REFERENCES

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Jefferson Duarte (Chair)	Alexander W. Butler
Associate Professor of Finance and	Professor of Finance
Gerald D. Hines Associate Professor of Real Estate Finance	713-348-6341
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