

Hee Su Roh

CONTACT INFORMATION

Email: heesuroh@stanford.edu

Address: Stanford Graduate School of Business, Ph.D. Office, 655 Knight Way, Stanford CA 94305

Phone: +1 (650) 946 8497

Website: <https://www.heesuroh.com>

EDUCATION

Stanford Graduate School of Business

09/2016 – present

Ph.D. candidate in finance

Committee: Darrell Duffie (chair), Arvind Krishnamurthy, Hanno Lustig

Stanford University

09/2009 – 06/2013

M.S., Management Science and Engineering (economics and finance track)

B.S., Management Science and Engineering (financial and decision engineering track)

RESEARCH INTERESTS

Empirical asset pricing, monetary policies, bond market

JOB MARKET PAPER

The Bond-Lending Channel of Quantitative Easing

R&R, Journal of Financial Economics

With quantitative easing (QE), central banks buy long-term government bonds to lower long-term interest rates. QE removes from the market both the investment risk associated with ownership of the bonds and also the transaction services conveyed by these bonds, which include facilitating the matching of buyers and sellers in the bond market. To the extent that it lends its stock of bonds back to market participants, a central bank replaces these transaction services. In contrast, by not lending its bonds, the central bank further lowers long-term rates by increasing the scarcity of these transaction services. This amplification of the impact of QE on long-term rates through reduced bond lending allows the European Central Bank to achieve its QE rate objective more easily because the alternative of even greater purchases of bonds could be politically contentious.

WORKING PAPER

Not Equally Special: Collateralised Trading of Non-Banks

With Angela Maddaloni (European Central Bank)

For a liquid bond market, it is important that bond holders actively lend their bonds. By being able to borrow bonds without delays, dealers can better intermediate trades in this market without carrying unnecessarily large inventories. The liquidity of the bond market is essential for many other financial markets such as the futures market or derivatives market. However, we show that nonbank financial institutions such as insurance companies or pension funds do not lend their bonds as actively as banks do. Even when they do lend bonds, they earn considerably less fees than banks. Because nonbanks hold much more bonds than banks in the euro-area, their inactive lending of bonds increases the scarcity of these assets and makes it costlier for investors to borrow bonds in the market.

WORK IN PROGRESS

Front-Running the Central Bank

With Angela Maddaloni (European Central Bank)

We show preliminary empirical evidence that hedge funds front-run the European Central Bank (ECB) in bond purchases. This front-running behavior became controversial when the German Constitutional Court deliberated the legality of the ECB's asset purchase program. When conducting quantitative easing (QE) programs, central banks announce their plans to purchase bonds from the secondary market. These announcements of future bond purchases provide incentives for private investors to front-run central banks. Investors purchase bonds before central banks and subsequently sell their bond inventory to central banks, extracting oligopolistic rents. Central banks face a trade-off. On the one hand, front-running can further push up bond prices when plans for bond purchases are announced. This may support the QE objective of lowering yields. On the other hand, central banks incur losses from buying bonds at inflated prices.

Monetary Policy Passthrough Efficiency in the Wholesale Money Market

With Stephan Jank (Deutsche Bundesbank) and Emanuel Mönch (Frankfurt School of Finance & Management)

RESEARCH EXPERIENCE

Intern, the Research Center of the Deutsche Bundesbank	10/2019 – 01/2020
Research Scientist, Korea Advanced Institute of Science and Technology	08/2013 – 08/2016
Research Assistant, Stanford Graduate School of Business Prof. Bradyn Breon-Drish's paper " <i>Do Fund Managers Make Informed Asset Allocation Decisions?</i> "	01/2013 – 07/2013

PRESENTATIONS

34th Australasian Finance and Banking Conference	12/2021
Seminar at the European Central Bank	06/2021
Federal Reserve Bank of San Francisco/Bank of Canada 7th Conference on Fixed Income Markets	10/2019
Poster Session at the European Central Bank Forum on Central Banking	06/2019

TEACHING EXPERIENCE

Organized a reading group with Prof. Darrell Duffie and Prof. Arvind Krishnamurthy	04/2021 – 06/2021
Teaching Assistant for Research in Financial Economics, Korea Advanced Institute of Science and Technology (KAIST)	03/2014 – 06/2014
Mentored three masters' students with their dissertations. Two of them were published in academic journals	2015

AWARDS AND FELLOWSHIPS

The George P. Shultz Dissertation Support Fund, the Stanford Institute for Economic Policy Research (SIEPR)	2020
The Graduate Student Grant Competition, the Europe Center at Stanford University	2019
Stanford Graduate School of Business Fellowship	2016–present

Henry Ford II Scholar Award, Stanford University - Awarded for having the best academic record among the graduating class in the School of Engineering	2013
2012–2013 Dept. of Management Science and Engineering Award for Outstanding Academic Achievement at the Undergraduate Level, Stanford University	2013
Frederick Emmons Terman Scholastic Award, Stanford University	2013
Samsung Undergraduate Overseas Studies Scholarship - One of the six recipients in Korea. Selection is based on academic merit.	2009–2013

COMPUTER SKILLS

- **MATLAB**: Finished a five-course sequence requiring the extensive use of MATLAB from the Dept. of Computational and Mathematical Engineering, Stanford University
- C/C++, Java, STATA, R, Julia, Dynare

OTHER NON-DEGREE EDUCATION

Stanford Center for Professional Development Online coursework in financial econometrics and time series analysis	09/2014 – 12/2014
Summer Session at Stanford University Coursework in macroeconomics	06/2013 – 08/2013

REFEREEING

Journal of Financial Economics

LANGUAGES

English (fluent), Korean (native)

PERSONAL INFORMATION

Citizenship: the United States

REFERENCES

Professor Darrell Duffie (Primary Advisor)
Stanford Graduate School of Business
duffie@stanford.edu

Arvind Krishnamurthy
Stanford Graduate School of Business
akris@stanford.edu

Hanno Lustig
Stanford Graduate School of Business
hlustig@stanford.edu

Angela Maddaloni
European Central Bank
angela.maddaloni@ecb.europa.eu

Last update: February 6, 2022