

# Sang Rae Kim

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## Academic Appointments

Owen Graduate School of Management, Vanderbilt University

*Postdoctoral Scholar* 2023-

## Education

PhD in Economics, Yale University, 2023

MPhil in Economics, Yale University, 2020

MA in Economics, Yale University, 2019

BA in Economics, Mathematics, Northwestern University, 2017

Diploma, Daewon Foreign Language High School, 2011

## Research Interests

Macroeconomics, Finance, Cryptocurrency, Fintech

## Research

### *Working Papers*

Bank Opacity and Safe Asset Moneyiness (*May 2023*) **R&R at Journal of Money, Credit, and Banking**

The return on equity (ROE) of a bank is a significant metric that holders of bank-produced safe assets use to gauge an asset's "moneyiness": how safe and liquid the asset is so that it can be traded at par with no questions asked. Looking at funding relationships between dealer banks and money market mutual funds (MMFs), I uncover a striking fact: an increase in a dealer bank's profitability in terms of a higher ROE results in a withdrawal of MMFs from that bank due to lower moneyiness of safe assets issued by the higher-ROE dealer bank. Furthermore, I show that these relationships are nonlinear: for a bank with higher ROE, an additional increase in its ROE results in a stronger withdrawal response due to a more severe deterioration in safe asset moneyiness. I present a model to explain these facts. The intuition for the result comes from the fact that safe asset investors care almost entirely about the left tail of the bank asset value distribution because they are debt holders.

How the Cryptocurrency market is Connected to the Financial Market (*November 2022*)

The cryptocurrency market is connected to the traditional financial market through reserve-backed stablecoins. Using the IV approach, I establish that a one standard deviation (\$330 million) increase in the issuance of major stablecoins (Tether and USD Coin) on a given day results in an 11% increase in the commercial paper issuance quantity, an 18 basis point decrease in the commercial paper yield, and a 15 basis point decrease in the Treasury yield the following day. This shows that the exponential growth of stablecoins created an excess demand for short-term money-like safe assets such as commercial paper and the Treasury. I also explore the fiat cryptocurrency market's effect on the financial market. A one standard deviation increase in the market capitalization change of major fiat cryptocurrencies (Bitcoin, Ethereum, and Binance Coin) on a given day results in an 11.9% decrease in the commercial paper issuance quantity, a 21 basis point increase in the commercial paper yield, and an 18 basis point increase in the Treasury yield the following day. This result suggests that investors exchange stablecoins for fiat cryptocurrency when the fiat cryptocurrency market is doing well, lowering the demand for stablecoins and thus commercial paper.

#### Capital Requirement When Banks are Money Producers (*June 2022*)

A financial crisis is an event when investors run on privately produced money-like safe asset (e.g. demand deposit, repurchase agreement) because it loses its role as money. Building on findings in Kim (2022), I study a quantitative macro finance model that features a bank that borrows money by issuing a short-term money-like debt with time-varying moneyiness. Lenders use limited public information available to them about the bank to assess the collateral that is backing the safe asset. When the lenders deem the bank asset too risky, the money-like debt turns information-sensitive and no longer serves the role of money. In this environment, an increase in the regulatory capital requirement affects the real economy through three different offsetting channels: the costly equity channel, the crisis frequency channel, and the moneyiness channel. I find that the current level of capital requirement is too low and that increasing it to about 18% will have a positive effect on the bank's ability to intermediate resources to the real economy.

#### *Works in Progress*

Moneyiness Cycles

A Quantitative Model of How the Cryptocurrency Market is Connected to the Financial Market

#### Fellowship and Awards

Yale Dissertation Fellowship, 2022-2023

Yale University Fellowship, 2017-2022

Cowles Foundation Fellowship, 2017-2022

Frederick S. Deibler Award for Superior Honors Thesis, 2017

Phi Beta Kappa Junior Induction, 2016

Robert M. Coen Fellowship, 2016

#### Seminar and Conference Presentations:

KER-KAEA International Conference (*July 2023*)

KAEA Job Market Conference (*November 2022*)

Central Banking & Digital Currency Job Market Candidate Virtual Workshop (*October 2022*)

Summer Workshop on Money, Banking, Payments, and Finance at the Federal Reserve Board (poster, *August 2022*)

## Research Experience

Research assistant to Professor Gary Gorton, 2019

Research assistant to Professor Cynthia Kinnan, 2016-2017

Research assistant to Professor Mitchell Petersen, 2015-2017

## Teaching Experience

### *Yale University*

Teaching assistant to Gary Gorton (MBA), Spring 2022

Teaching assistant to Samuel Kortum (Undergraduate), Fall 2019, Fall 2021

Teaching assistant to Robert Shiller (Undergraduate), Spring 2020, Spring 2021

Teaching assistant to Eduardo Davila (Undergraduate), Fall 2020

## References

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