# Gordon Y. Liao

**Email:** gliao@post.harvard.edu goliao.github.io

## Education

Ph.D., A.M., Business Economics, HBS & Harvard Econ, 2013 –2017 (2018/2019 graduating cohort)

A.B., Applied Mathematics, magna cum laude, Harvard University, 2007 –2011

# **Current Position**

2020 – present Federal Reserve Board, Senior Economist

2018 – 2020 Federal Reserve Board, Economist

## **Previous Positions**

2017 – 2018 Cambridge Square Capital, *Partner* 

2011 – 2013 Harvard Management Company, Associate

#### Research Interests

Financial Intermediaries, International Finance, Asset Pricing, Behavioral Finance, Digital Currency

## Working Papers

- 1. "The Hedging Channel of Exchange Rate Determination" (with Tony Zhang) Abstract: We document the exchange rate hedging channel that connects country-level measures of net external financial imbalances with exchange rates. In times of market distress, investors increase their currency hedging activities in proportion to their overall net foreign asset exposure by purchasing forward contracts. Countries with large positive net foreign asset holdings (e.g. Japan) experience domestic currency appreciation, and crucially, forward exchange rates appreciate relatively more than the spot after adjusting for interest rate differentials. Countries with large negative foreign asset positions experience the opposite currency movements. We present a model demonstrating that exchange rate hedging coupled with intermediary constraints can explain the observed relationship between gradually-adjusting net external imbalances and volatile spot and forward exchange rates. We find empirical support for this currency hedging channel of exchange rate determination in both the conditional and unconditional moments of exchange rates, option prices, and large institutional investors' disclosure of hedging activities. The currency hedging channel also explains the observed cross-sectional heterogeneity in the usage of the Federal Reserve dollar liquidity swap lines during the Covid-19 pandemic --- countries that are "dollar rich" in foreign asset holdings borrowed more from the swap line than countries that are "dollar poor".
- 2. "U.S. Banks and Global Liquidity" (with Ricardo Correa and Wenxin Du)

Abstract: We characterize how U.S. global systemically important banks (GSIBs) supply short term dollar liquidity in repo and foreign exchange swap markets in the post-Global Financial Crisis regulatory environment and serve as the "lenders-of-second-to-last resort". Using daily supervisory bank balance sheet information, we find that U.S. GSIBs modestly increase their dollar liquidity provision in response to dollar funding shortages, particularly at period-ends, when the U.S. Treasury General Account balance increases, and during the balance sheet taper of the Federal Reserve. The increase in the dollar liquidity provision is mainly financed by reducing excess reserve balances at the Federal Reserve. Intra-firm transfers between depository institutions and broker-dealer subsidiaries within the same bank holding company are crucial to this type of "reserve-draining" intermediation. Finally, we discuss factors that contributed to the repo spike in September 2019 and the subsequent response of U.S. GSIBs to recent policy interventions by the Federal Reserve.

## **Journal Publications**

- 3. "Credit Migration and Covered Interest Rate Parity"

  Journal of Financial Economics (2020)
- 4. "Rare Disaster Probability and Options-Pricing" (with Robert Barro) Journal of Financial Economics (2020)
- 5. "Asset Price Dynamics in Partially Segmented Markets" (with Robin Greenwood and Sam Hanson). *Review of Financial Studies* (2018).
- 6. "Rethinking Operational Risk Capital Requirements" (with Yueran Ma and Peter Sands). *Journal of Financial Regulation* (2018).

#### Work-in-Progress

(slides available by request)

- 7. "The Impact of Innovative Security Designs on Asset Prices" (with Claire Celerier and Boris Vallée)
- 8. "Exorbitant Privilege and Dollar Dominance" (with John Caramichael and Gita Gopinath)
- 9. "Liquidity Demand in Exchange Rate" (with Lee Baker)

## Non-refereed Manuscript

10. "Average Marginal Income Tax Rates in New Zealand, 1907-2009" (with Debasis Bandyopadhyay, Robert Barro, Jeremy Couchman, Norman Gemmell, Fiona McAlister)

## Teaching

Spring, 2016 Behavioral Finance (Ph.D.), Harvard University, Teaching Fellow for Jeremy Stein and Andrei Shleifer

November 2015 HBS Case Method Teaching Training (participant)

Spring, 2013 Applied Quantitative Finance, Harvard University, Teaching Fellow for Stephen Blyth

## Honors, Awards

Best Finance Ph.D. Award at the 13th Corporate Finance Conference, Washington University in St. Louis, 2016

Bradley Foundation Fellowship, 2016

Harvard Business School Doctoral Fellowship, 2013-2017

Phi Beta Kappa, 2011

High Honors in Field, Harvard College, 2011

AmeriCorps Student Leader in Service, 2010

John Harvard Scholar, Harvard College, 2009

Harvard University Human Rights Summer Fellowship, 2008

Weissman Fellowship, Harvard College, 2008

## Presentations

Toronto Rotman\* (2020), LSE Systemic Risk Centre (2020), U.S. Department of Treasury (2020), University of Maryland (2020), CFTC (2020), Bank Policy Institute (2020), UNC Junior Finance Round Table (2020), NBER SI MEFM/AP Joint Session (2020), AEA (2020), International Macro Finance Conference (2019), SNB-FRB-BIS Conference on Global Risk, Uncertainty, and Volatility (2019), UCLA\* (2019), Stanford Institute for Theoretical Economics (2019), Fourth Annual Young Scholars Finance Consortium (2019), Midwest Finance Conference (2019), Oxford\* (2018), LSE\* (2018), Econometric Society Winter Conference (2018), IMF RESMF-FRBIF workshop (2018), West Coast International Finance Conference (2018), UC Davis\* (2018), Stanford\* (2018), SAFE Asset Pricing Workshop (2018), Federal Reserve Board (2018), AQR (2018), Blackrock (2018), Bank of International Settlement Symposium on Covered Interest Rate Parity (2017)

(\* brownbag or ad hoc seminar)

#### Discussions

- R. Kerkre and M. Lenel "Dollar Demand and International Risk Sharing," American Economic Association, 2021
- S. Bahaj and R. Reis, "Central Bank Swap Lines: Evidence on the Effects of the Lender of Last Resort," Western Finance Association, 2019
- W. Du, B. Hébert, and A. Huber, "Are Intermediary Constraints Priced?", NBER IFM Fall 2019 meeting

N. Boyarchenko, T. Eisenbach, P. Gupta, O. Shachar, and P. Van Tassel, "Bank-Intermediated Arbitrage", WFA 2020

# Referee

Quarterly Journal of Economics, Review of Financial Studies, Journal of International Economics, Journal of Financial Economics, International Finance, Journal of International Money and Finance, Management Science