

## SANJAY RAJ SINGH

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### Contact Information:

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### Current Employment

July 2023 –	Senior Economist, Federal Reserve Bank of San Francisco
July 2017–	Assistant Professor, Department of Economics, University of California Davis (On-leave at SF Fed: July 2022–June 2023)

### Education:

2017	Ph.D., Economics, Brown University Thesis committee: Gauti B. Eggertsson, Neil R. Mehrotra and David N. Weil
2011	B.A. (Honours) Economics, St. Stephen's College, University of Delhi

### Research Interests:

Macroeconomics, Monetary Economics, International Finance, Economic Growth

### Published Articles:

“Understanding Persistent ZLB: Theory and Assessment”  
(with Pablo Cuba-Borda)  
*American Economic Journal: Macroeconomics*, forthcoming.

“Incorporating Diagnostic Expectations into the New Keynesian Framework”  
(with Jean-Paul L’Huillier and Donghoon Yoo)  
*The Review of Economic Studies*, forthcoming.

“Supply or Demand? Policymakers’ Confusion in the Presence of Hysteresis”  
(with Antonio Fatás)  
*European Economic Review*, January 2024, 161, 104617.

“Currency Areas, Labor Markets, and Regional Cyclical Sensitivity”  
(with Katheryn N. Russ and Jay C. Shambaugh)  
*IMF Economic Review*, forthcoming.

“Bond Premium Cyclicalality and Liquidity Traps”  
(with Nicolas Caramp)  
*The Review of Economic Studies*, November 2023, 90(6): 2822–2879.

“Longer-Run Economic Consequences of Pandemics”  
(with Òscar Jordà and Alan M. Taylor)  
*The Review of Economics and Statistics*, January 2022, 104(1): 166–175.

“Output Hysteresis and Optimal Monetary Policy”  
(with Vaishali Garga)  
*Journal of Monetary Economics* 117 (2021): 871–886.

“Log-Linear Approximation versus an Exact Solution at the ZLB in the New Keynesian Model”  
(with Gauti B. Eggertsson)  
*Journal of Economic Dynamics and Control*, 2019, 105 (C):21–43.

“The Effect of Foreign Shocks on the Indian Economy”  
(with Aeimit Lakdawala)  
*India Policy Forum 2019* Volume 16:1–47.

“A Contagious Malady? Open Economy Dimensions of Secular Stagnation”  
(with Gauti B. Eggertsson, Neil R. Mehrotra, and Lawrence H. Summers)  
*IMF Economic Review*, 2016, 64:581–634.

“Tariffs and the Macroeconomy”  
(with Xiangtao Meng and Katheryn N. Russ)  
*Oxford Research Encyclopedia in Economics and Finance*, July 2023.

#### **Completed Working Papers:**

“Low Risk Sharing with Many Assets”  
(with Emile A. Marin)

“The Long-Run Effects of Monetary Policy”  
(with Òscar Jordà and Alan M. Taylor)  
Revise and Resubmit at *The Review of Economics and Statistics*

“The Financial Origins of Non-Fundamental Risk”  
(with Sushant Acharya and Keshav Dogra)

“Distribution of Market Power, Endogenous Growth, and Monetary Policy”  
(with Yumeng Gu)

“Asset Prices and Credit with Diagnostic Expectations”  
(with James Cloyne, Òscar Jordà, and Alan M. Taylor)

#### **Other: articles, literature reviews, and research summaries**

“Does Monetary Policy Have Long-run Effects?”  
(with Òscar Jordà and Alan M. Taylor)  
Federal Reserve Bank of San Francisco Economic Letter 2023-23, September 5, 2023.

“The Longer-Run Economic Consequences of Pandemics”  
(with Òscar Jordà and Alan M. Taylor)  
VoxEu.org, 8 April 2020.

“The Long Economic Hangover of Pandemics”  
(with Òscar Jordà and Alan M. Taylor)  
*Finance and Development*, June 2020 Vol 57 Number 2: 12–15.

**Refereeing:**

American Economic Review, Review of Economic Studies, American Economic Journal: Macroeconomics, Journal of Monetary Economics, Journal of Political Economy Macroeconomics, The Review of Economics and Statistics, Journal of Economic Theory, AER: Insights, Journal of International Economics, The Economic Journal, European Economic Review, Review of Economic Dynamics, IMF Economic Review, Journal of Economic Growth, Economic Letters, Journal of Money Credit and Banking, International Journal of Central Banking, Journal of Economic Dynamics and Control, Journal of European Economic Association, Macroeconomic Dynamics, Journal of Mathematical Economics, Scandinavian Journal of Economics, B. E. Journal of Macroeconomics, Journal of Development Economics, World Development, Health Economics, Economica (LSE), Economic Inquiry, Journal of Economic Surveys, The Journal of the Economics of Ageing

**Presentations** (including scheduled)

2024	ECB Workshop on Productivity (Invited Keynote), Berkeley Haas (Finance)
2023	AEA Annual Meeting (discussant), San Francisco Fed, Northwestern, 17th Annual Cowles Conference on General Equilibrium and its Applications, University of Nevada Las Vegas, Bank of Finland, CEPR ESSIM – IMF Program, Barcelona Summer Forum (Expectations in Dynamic Macroeconomic Models), CEBRA Annual Meeting, NBER Summer Institute (EFG Program Meeting), Purdue University, Ashoka University Annual Economics Conference
2022	NBER Spring ME (discussant), UC San Diego, Bank of England, Federal Reserve Board DC, IMF, Institute of Economic Growth Delhi—CDE (DSE) Joint Seminar, New York Fed, San Francisco Fed, Barcelona Summer Forum (Financial Intermediation & Risk), Salento Macro 2022, Midwest Macro Fall 2022, 29th Annual Symposium of Society for Nonlinear Dynamics, Theories and Methods in Macroeconomics 2022, UC Davis Faculty Brown Bag, 2022 Financial Stability Conference at the Cleveland Fed, NBER Mid-year EFSF <sup>^</sup> (^ co-author presented)
2021	AEA Annual Meeting, UC Berkeley (Economic History), European University Institute, SED (Minneapolis), NBER Summer Institute (EFCE), North American Summer Meeting of Econometric Society, Bank of Canada Workshop on Monetary Policy Research, 24th Central Bank Macroeconomic Modelling Workshop, LACEA-LAMES, Liquidity in Macroeconomics Workshop (Virtual), 16th ACEGD at ISI Delhi, Winter School at Delhi School of Economics, 19th Macroeconomics and Finance Conference at IGIDR Mumbai, UC Davis Macro and Theory Brown Bags
2020	Bank of Finland and CEPR Joint Conference on Monetary Economics and Reality, Banco de México, Econometric Society World Congress, University of Tokyo, UC Davis, Western Economics International Association Conference, Climate Change Pandemics and Monetary Policy Conference by DNB-BBK-Norges Bank, European Meeting of Econometric Society, Winter School at Delhi School of Economics  Cancelled due to Covid-19: NBER ME Spring Meeting, NBER Japan Project Meeting, ECB International Research Forum on Monetary Policy, UC Davis Theory Brown Bag

2019	Barcelona Summer Forum, NBER (IFM) Summer Institute, University of Wisconsin–Madison, University of Zurich, Federal Reserve Banks of San Francisco and St Louis, Fed Board, Annual Inflation Targeting Conference at Banco Central do Brasil, Annual Swiss National Bank Conference, The Changing Economy and the Business Cycle Conference at Norges Bank, SED Annual Meeting, Tsinghua Macro workshop, UC Davis, Delhi School of Economics, Indian Statistical Institute Delhi, Spring Midwest Macro
2018	Fall Midwest Macro, North American Summer Meeting of the Econometric Society, CAFRAL–Reserve Bank of India
2017	Brandeis University, Federal Reserve Banks of Boston and Cleveland, Fed Board, Rutgers University, UC Davis, UC Santa Cruz, Computing in Economics and Finance Workshop, ECB workshop on Monetary policy in non-standard times, Fifth ECB/CBRT conference, Midwest Macro Meetings (Spring), North American Summer Meeting of the Econometric Society

#### **Grants**

2018–24	UC Davis Senate Small Research Grants
2017–24	UC Davis Senate Research Travel Awards

#### **Honors and Awards:**

2024	Keynote Speaker, European Central Bank Workshop on Possible Impact of Monetary Policy on Productivity and Long-Term Growth
2021	Dr. Subir V. Gokarn Best Paper Award for <i>The Long-run Effects of Monetary Policy</i> at 19 <sup>th</sup> Macroeconomics and Finance Conference, IGIDR Mumbai (joint with Òscar Jordà and Alan M Taylor)
2020	Best Paper Award in Macro for <i>Bond Premium Cyclicalities and Liquidity Traps</i> at the Delhi Winter School (joint with Nicolas Caramp)
2016–2017	Brown University Dissertation Fellowship
2012	Mr. & Mrs. B.D. Gupta Economics Prize, St. Stephen's College
2011	KS Goindi Fellowship for Graduate Studies at Brown, St. Stephen's College
2011	St. Stephen's College <i>Centenary</i> Prize & Medal
2011	K.C. Nag Economics Prize, St. Stephen's College
2010	Bank of Tokyo-Mitsubishi (Sanwa Bank) Scholarship, St. Stephen's College

#### **Teaching:**

Topics in Macroeconomics (second year PhD), UC Davis (Spring 2018, Spring 2019, Spring 2020, Winter 2021, Spring 2022, Fall 2023, Fall 2024)

Intermediate Macroeconomic Theory, UC Davis (2x Winter 2018, 2x Winter 2019, 2x Winter 2020, Winter 2021, Spring 2021, 2x Winter 2022, Fall 2023)

Macroeconomic Policy, UC Davis (Spring 2020, Spring 2021, Spring 2022)

### **PhD Thesis Advising (Year of Graduation, First Placement)**

Johannes Matschke, 2021, *Federal Reserve Bank of Kansas City*  
Hyundo Joo, 2022, *Bank of Korea*  
Ece Özge Emeksiz, 2023, *International Monetary Fund*  
Yumeng Gu, 2023, *International Monetary Fund*  
Hanguo Huang, 2023, *Shandong University* (co-chair)  
Sebastián Amador, on the job market 2023-24  
Jinyoung Seo, (co-chair) on the job market 2023-24

### **Discussions:**

1. Food, Fuel, and Facts: Distributional Effects of Global Prices, S. Bhattarai, A. Chatterjee, and G. Udupa, CAFRAL conference on Financial System and Macroeconomy in Emerging Economies, 2023.
2. *Can Today's and Tomorrow's World Uniformly Gain from Carbon Taxation?* F. Kubler, L. Kotlikoff, A. Polbin, and S. Scheidegger, FRBSF and European Economic Review conference on “The effects of climate on the business cycle and the economy”, 2023.
3. *Market Power and Monetary Policy Transmission*. R. Duval, D. Furceri, R. Lee and M. Tavares, ASSA 2023
4. *Assessing Central Bank Commitment to Inflation Targeting: Evidence from Financial Market Expectations in India*. V. Garga, A. Lakdawala and R. Sengupta, CAFRAL conference on Financial System and Macroeconomy in Emerging Economies, 2022
5. *Diagnostic Business Cycles*. F Bianchi, C Ilut, and H Saijo, NBER Monetary Economics Spring 2022
6. *Dissecting Mechanisms of Financial Crises: Intermediation and Sentiment*. A Krishnamurthy and W Li, CESifo Macro, Money and International Finance, 2021
7. *Foreign-currency exposures and the financial channel of exchange rates: Eroding monetary policy autonomy?* G Georgiadis and F Zhu, CEBRA-IFM Annual Conference, 2019
8. *Zombie Credit and (Dis-)inflation: Evidence from Europe*. V Acharya, M Crosignani, T Eisert and C Eufinger, Bank of Finland and CEPR Joint Conference on Monetary Economics and Reality, 2019
9. *Zombie Firm Dynamics and China's Monetary Policy*. W Guo, D Jia and TW Li, 11th Tsinghua Workshop in Macroeconomics, 2019
10. *Taking away the Punch Bowl: Monetary Policy and Financial Instability*. KD Sheedy, XXI Annual Inflation Targeting Conference, 2019
11. *Golden Fetters and the Causal Effects of Countercyclical Monetary Policy*. KJ Mitchener and G Pina, West Coast Workshop in International Finance, 2018
12. *Multinational Firms, Trade, and the Trade-Comovement Puzzle*. G Udupa, CAFRAL conference on Financial System and Macroeconomy in Emerging Economies, 2018

### Conference/Workshop Organization

Program Committee for the Fourth Annual Conference on “Financial System and the Macroeconomy in Emerging Economies” organized by CAFRAL (RBI), December 2023

Program Committee for the Third Annual Conference on “Financial System and the Macroeconomy in Emerging Economies” organized by CAFRAL (RBI) in Mumbai, December 2022

Co-Organizer for “Liquidity in Macroeconomics Workshop”, Virtual on 12/04/2020, 04/23/2021, 11/19/2021, in-person in Vancouver on 09/24/2022, in-person at FRBSF on 05/19/2023, in-person at St. Louis Fed on 09/29/2023

Co-Organizer for International/Macro Workshop at UC Davis, Fall 2018, Winter 2019, Fall 2020

### Department Service at UC Davis

2019–present	Honor Committee
2018–present	Visiting Scholars Coordinator
2018–2019	International/Macro reading group co-organizer
2017–present	IT Committee
2017–present	PhD Qualifying Exam Committee, Department of Economics and Department of Agricultural & Resource Economics, University of California, Davis

### Professional Society Affiliations/Memberships:

American Economic Association, Macro Finance Society, Econometric Society

### Academic Visits

2018–2021	Visiting Scholar at the Federal Reserve Bank of San Francisco
December 2019	Short-term Visitor at the CAFRAL (RBI) Mumbai
2019–2022	Short-term Visitor at the Federal Reserve Board of Governors (IFD)
May 2022	Short-term Visitor at the Federal Reserve Bank of Cleveland
May 2023	Short-term Visitor at the Federal Reserve Bank of New York
May 2023	Short-term Visitor at the Bank of Finland
2022–2023	Visiting Fellow at the Federal Reserve Bank of San Francisco

**Other Personal Information** Citizenship: India. Born: May 6, 1990