# Christian Matthes

Associate Professor of Economics
Indiana University
100 S Woodlawn Ave
Bloomington, IN 47405

*last changed: July 29, 2021*
Email: matthesc@iu.edu
Webpage: https://cm1518.github.io/


## Personal

- **Date of Birth**
  *August 20th, 1979*
- **Citizenship**
  *United States of America*

## Current Position

- **Indiana University** — Bloomington, IN
  *Associate Professor of Economics* — *August 2019 -*

## Former Positions

- **Federal Reserve Bank of Richmond** — Richmond, VA
  *Research Economist and Senior Economist* — *September 2013 - August 2020*
- **Universitat Pompeu Fabra** — Barcelona, Spain
  *Assistant Professor of Economics* — *September 2010 - September 2013*

## Education

- **New York University** — New York, NY
  *Ph. D., Economics* — *2004-2010*
  - M.A., Economics, 2008
  - Advisors: Timothy Cogley and Thomas Sargent
  - Thesis: Figuring Out the Fed - Beliefs about Policymakers and Gains from Transparency
- **Goethe University** — Frankfurt am Main, Germany
  *Diplom, Economics* — *1999 - 2004*
  - Undergraduate Thesis: A Bayesian VAR Analysis Using Priors from a DSGE Model
  - Advisor: Volker Wieland

## Publications

Understanding the Size of the Government Spending Multiplier: It's in the Sign, **Review of Economic Studies**, forthcoming
with Regis Barnichon and Davide Debortoli

How to Go Viral:A COVID-19 Model with Endogenously Time-Varying Parameters, **Journal of Econometrics**, forthcoming
with Thomas Lubik & Paul Ho

A composite likelihood approach for dynamic structural models, **Economic Journal**, forthcoming
with Fabio Canova

Dealing With Misspecification in Structural Macroeconometric Models, **Quantitative Economics**, Volume 12, Issue 2, Pages 313-350, (lead article)
with Fabio Canova

Forecasting the COVID-19 epidemic: the case of New Zealand, **New Zealand Economic Papers**, forthcoming
with Paul Ho and Thomas Lubik

Are the Effects of Financial Market Disruptions Big or Small?, **Review of Economics & Statistics**, forthcoming
with Regis Barnichon and Alexander Ziegenbein

Detecting and Analyzing the Effects of Time-Varying Parameters in DSGE Models, **International Economic Review**, February 2020, vol. 61, No. 1
with Fabio Canova and Filippo Ferroni

Functional Approximation of Impulse Responses, **Journal of Monetary Economics**, November 2018, vol. 99, Pages 41-55
with Regis Barnichon

Choosing Prior Hyperparameters, **Journal of Business & Economic Statistics**, 2020, 38:1, 124-136
with Pooyan Amir-Ahmadi and Mu-Chun Wang

Two-sided Learning and Short-Run Dynamics in a New Keynesian Model of the Economy, **Economics Letters**, Volume 159, October 2017, Pages 53-56
with Francesca Rondina

Measurement Errors and Monetary Policy: Then and Now, **Journal of Economic Dynamics and Control**, Volume 79, June 2017, Pages 66-78
with Pooyan Amir-Ahmadi and Mu-Chun Wang

Indeterminacy and Learning: An Analysis of Monetary Policy in the Great Inflation, **Journal of Monetary Economics**, September 2016, vol. 82, pages 85-106
with Thomas Lubik

Drifts and Volatilities under Measurement Error: Assessing Monetary Policy Shocks over the Last Century, **Quantitative Economics**, July 2016, vol. 7 (2), pages 591-611
with Pooyan Amir-Ahmadi and Mu-Chun Wang

Learning about Fiscal Policy and the Effects of Policy Uncertainty, **Journal of Economic Dynamics and Control**, October 2015, vol. 59, pages 142-162
with Josef Hollmayr

Optimal Disinflation Under Learning, **Journal of Monetary Economics**, May 2015, vol. 72, pages 131-147
with Tim Cogley and Argia Sbordone

Figuring Out the Fed - Beliefs about Policymakers and Gains from Transparency, **Journal of Money, Credit & Banking**, 2015, vol. 47(1), pages 1-29 (lead article)

Choosing the Variables to Estimate Singular DSGE Models, **Journal of Applied Econometrics**, 2014, vol. 29(7), pages 1099-1117
with Fabio Canova and Filippo Ferroni

What Drives Inflation in New Keynesian Models?, **Economics Letters**, 2012, vol. 114(3), pages 338-342
with Mu-Chun Wang

A Bayesian Approach to Optimal Monetary Policy with Parameter and Model Uncertainty, **Journal of Economic Dynamics and Control**, 2011, vol. 35(12), pages 2186-2212
with Bianca De Paoli, Tim Cogley, Kalin Nikolov and Tony Yates

## Working Papers

**Indeterminacy and Imperfect Information, R&R, Review of Economic Dynamics**
**with Thomas Lubik and Elmar Mertens**

**Learning About Regime Change, R&R, International Economic Review**
**with Andrew Foerster**

**Economic Theories and Macroeconomic Reality, R&R, Journal of Monetary Economics**
**with Francesca Loria and Mu-Chun Wang**

**Monetary Policy Across Space and Time**
**with Laura Liu and Katerina Petrova**

**The Consumption Origins of Business Cycles: Lessons from Sectoral Dynamics**
**with Felipe Schwartzman**

**Assessing Macroeconomic Tail Risk**
**with Francesca Loria and Donghai Zhang**

**Assessing U.S. Aggregate Fluctuations Across Time and Frequencies**
**with Thomas Lubik and Fabio Verona**

## Other Work

- Practicing Dynare - joint with Francisco Barillas, Riccardo Colacito, Sagiri Kitao, Thomas Sargent and Yongs Shin
- Learning about Fiscal Policy Uncertainty - with Tim Sablik, Richmond Fed Economic Brief 14-01
- Calculating the Natural Rate of Interest: A Comparison of Two Alternative Approaches - with Thomas Lubik, Richmond Fed Economic Brief 15-10
- Time-Varying Parameter Vector Autoregressions: Specification, Estimation, and an Application - with Thomas Lubik, Richmond Fed Economic Quarterly, Fourth Quarter 2015
- The Burns Disinflation of 1974 - with Thomas Lubik and Tim Sablik, Richmond Fed Economic Brief 16-11
- Beveridge Curve Shifts and Time-Varying Parameter VARs - with Thomas Lubik and Andrew Owens, Richmond Fed Economic Quarterly, Third Quarter 2016
- Are the Effects of Monetary Policy Asymmetric? - with Regis Barnichon and Tim Sablik, Richmond Fed Economic Brief 17-03
- Are the Effects of Fiscal Policy Asymmetric? - with Regis Barnichon and David Price, Richmond Fed Economic Brief 17-09
- The Natural Rate of Unemployment over the Past 100 Years - with Regis Barnichon, FRBSF Economic Letter 2017-23
- The Financial Crisis at 10: Will We Ever Recover? - with Regis Barnichon and Alexander Ziegenbein, FRBSF Economic Letter 2018-19
- How Likely Is a Return to the Zero Lower Bound? - with Thomas Lubik and David A. Price, Richmond Fed Economic Brief 18-09
- Moving Macroeconomic Analysis beyond Business Cycles - with Renee Haltom, Thomas Lubik and Fabio Verona, Richmond Fed Economic Brief 19-04
- Monetary Policy across Space and Time - with Laura Liu, Katerina Petrova and Jessie Romero, Richmond Fed Economic Brief 19-08
- Forecasting the COVID-19 Pandemic in the Fifth District - with Paul Ho and Thomas Lubik, Richmond Fed Regional Matters
- Forecasting the COVID-19 Epidemic for the U.S. - with Paul Ho and Thomas Lubik, Federal Reserve Bank of Richmond Special Report
- The Highs and Lows of Productivity Growth - with Andrew Foerster and Lily Seitelman, FRBSF Economic Letter 2020-21
- COVID-19 over Time and across States: Predictions from a Statistical Model - with Paul Ho and Thomas Lubik, Federal Reserve Bank of Richmond Economic Brief 20-10
- Can Government Spending Help to Escape Recessions? - with Regis Barnichon and Davide Debortoli, FRBSF Economic Letter 2021-02

## Visiting Positions

- **University of Chicago** Chicago, IL
  *Visiting Student* *Winter Quarter 2007*
- **Federal Reserve Bank of Atlanta, Research Department** Atlanta, GA
  *Visiting Scholar* *Summers 2007 - 2011, May 2012*
- **Federal Reserve Bank of New York** New York, NY
  *Visiting Scholar* *August 2010 - September 2010*
- **Deutsche Bundesbank** Frankfurt am Main, Germany
  *Visiting Scholar* *June 2011 - August 2011, June 2012 - August 2012, June 2013 - August 2013*
- **Federal Reserve Bank of Richmond** Richmond, VA
  *Visiting Scholar* *September 2011*
- **Bank of Finland** Helsinki
  *Visiting Scholar* *November 2011*

## Teaching and Research Fields

Macroeconomics, Econometrics, Monetary Economics

## Research Interests

Monetary and Fiscal Policy, Learning and Imperfect Information, Econometric Analysis of Dynamic Equilibrium Models, Bayesian Econometrics

## Teaching Experience

- **Empirical Macro (2nd year PhD class)** Indiana University
  *Fall 2020*
- **Reading Group for Macro PhD Students** Indiana University
  *Spring 2020, Spring 2021*
- **Econometrics II (Masters level)** Indiana University
  *Fall 2019, Spring 2021*
- **Time Series Econometrics (2nd year PhD class)** University of Virginia
  *Spring 2016, Spring 2017, Spring 2018*
- **Short Course on Time-Varying Parameter Models** Bundesbank
  *Summer 2013*
- **Intermediate Macro (2nd year undergraduate class)** Universitat Pompeu Fabra
  *Spring 2011, Fall 2011, Fall 2012*
- **Advanced Macro II (1st year PhD class)** Universitat Pompeu Fabra
  *Spring 2011*
- **Computational Methods (2nd year PhD class)** Universitat Pompeu Fabra
  *Spring 2011, Fall 2011, Fall 2012*

- **Reading Group for Macro PhD Students** — Universitat Pompeu Fabra, *Fall 2010 - Fall 2012*
  - organized with Kristoffer Nimark

## Awards, Grants & Honors

Henry Mitchell McCracken Fellowship, NYU . . . . . . . . . . . . . . . . . . . . . . . . . . 2004-2008
CV Starr Fellowship, NYU . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2009
Juan de la Cierva Fellowship, Spanish Ministry of Science and Education . . . . . . . . 2012-2013
Faculty Assistance in Data Sciene Grant, IU . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2021

## Seminars and Conference Presentations

- 2021: Queen Mary, Richmond Fed, North American Summer Meetings of the Econometric Society, CEF, IAAE, CEBRA, NBER Summer Institute (EFSF)
- 2020: SBIES, Philadelphia Fed Real-Time Data Workshop, National University of Singapore, Drautzburg-Nason FFM workshop, Richmond Fed Workshop on Climate Change (discussant only), European Winter Meetings of the Econometric Society, Conference on Computational and Financial Econometrics
- 2019: Bank of Finland Workshop on Empirical Macroeconomics, University of Hamburg, Society for Economic Dynamics Annual Meeting (St. Louis), "Modelling The Macroeconomy in Risky Times" Workshop (St. Louis), Philadelphia Fed/NBER DSGE Workshop, "New Approaches for Modelling Expectations in Economics" Conference (London, discussant only), Bank of England
- 2018: Atlanta Fed, Cleveland Fed, Norges Bank Workshop on Nonlinear Models, Penn, St. Louis Fed Time Series Workshop, UVa-FRBR Research Jamboree, University of Hong Kong, Hong Kong University of Science & Technology, HKUST Macro Workshop, NBER Summer Institute (EFFE), Indiana, Texas A&M, Richmond Fed Fiscal Policy Workshop, William & Mary
- 2017: NC State, Federal Reserve System Macro Day Ahead Meeting (San Antonio), University of Illinois, SBIES (St. Louis), Barcelona GSE Summer Forum (Time Series), EUI conference on Time-Varying Parameter Models (Florence), Society for Economic Dynamics Annual Meeting (Edinburgh), CEF (New York), Workshop on Expectations in Dynamic Macroeconomic Models (St. Louis), Dallas Fed, Philadelphia Fed/NBER DSGE Workshop, Midwest Macro (Pitt)
- 2016: 9th International Forum on Monetary Policy (Frankfurt), Bank of England Workshop on Time-Varying Coefficient Models, Society for Economic Dynamics Annual Meeting (Toulouse), Federal Reserve System Macro Meeting (Cincinnati), Chicago Fed/NBER DSGE Workshop, ESOBE (Venice), Midwest Macro (Kansas City), ECB, Bundesbank
- 2015: William & Mary, EUI Workshop on Time-Varying Coefficient Models, Oxford, Bank of England, NYU Alumni Conference, Society for Economic Dynamics Annual Meeting (Warsaw), NBER Summer Institute (EFSF), Econometric Society World Congress (Montreal), Board of Governors, Cirano-Philadelphia Fed Real-Time Data Workshop (Montreal)
- 2014: UVa-FRBR Research Jamboree, Midwest Macro (University of Missouri), CEF (Oslo), IAAE (London), NBER Summer Institute (EFSF), Philadelphia Fed Real-Time Data Workshop, Chicago Fed/NBER DSGE Workshop, Midwest Macro (Miami), SEA (Atlanta)

- 2013: Riksbank, Universitat Autonoma de Barcelona, University of Hamburg, Mannheim Workshop in Quantitative Macro, Banco de España Workshop on Expectations and Macroeconomics (Madrid, discussant only), Joint Central Bank Conference (Cleveland, discussant only), Midwest Macro (Minneapolis), Federal Reserve System Macro Meeting (Boston)
- 2012: CREATES (Aarhus University), Atlanta Fed, Midwest Macro (Notre Dame), Konstanz Seminar on Monetary Theory and Policy (discussant only), CEF (Prague), Bundesbank, Bank of Canada, Kansas City Fed, Dynare Conference (Zürich), CEMFI, Riksbank, UPF, ECB conference on "Debt, Growth and Macroeconomic Policies" (discussant only)
- 2011: ECB, HECER (Helsinki, 2 ×), Magyar Nemzeti Bank (Budapest), Norges Bank, Norwegian School of Management, CREI conference on Information, Beliefs and Expectations in Macroeconomics (discussant only), Canadian Economics Association Annual Meeting (Ottawa), Society for Economic Dynamics Annual Meeting (Ghent), Bundesbank, Richmond Fed, NBP conference "DSGE and beyond" (Warsaw), Bank of Finland, ECB conference on "Information, Beliefs and Economic Policy", Conference on Computational and Financial Econometrics (London)
- 2010: Emory, Richmond Fed, Federal Reserve Board, Pompeu Fabra, Tilburg, Paris School of Economics, Dallas Fed, Dynare Conference (Helsinki), DNB-ECB-RUG Conference on Central Bank Communication (Amsterdam), CFS conference on Macroeconomic Modeling and Policy Analysis (Frankfurt, discussant only)
- 2009: Atlanta Fed, NYU

## Other Activities

- Associate Editor, Quantitative Economics
- Associate Editor, Jahrbücher für Nationalökonomie und Statistik
- Co-editor (with J. Dolado and L. Gambetti), Advances in Econometrics volume in honor of Fabio Canova
- Referee for: B.E. Journal of Macroeconomics, Economic Journal, Journal of Monetary Economics, Journal of the European Economic Association, Economic Inquiry, Journal of Economic Dynamics and Control, International Journal of Central Banking, Economics Letters, Journal of Political Economy, European Economic Review, Oxford University Press, Bulletin of Economic Research, American Economic Journal: Macroeconomics, Journal of Money, Credit & Banking, Review of Economic Studies, International Economic Review, Review of Economics & Statistics, Macroeconomic Dynamics, Journal of Business & Economic Statistics, Journal of Econometrics, Quantitative Economics, Econometrica, Journal of Applied Econometrics, Journal of Financial and Quantitative Analysis, American Economic Journal: Economic Policy, Oxford Bulletin of Economics & Statistics, Journal of Economic Literature, Empirical Economics, International Journal of Forecasting, Review of Financial Studies
- Grant reviewer for: European Research Council, National Science Foundation
- External evaluator of candidates for the University of Helsinki, 2012
- Dissertation/third-year committee member and/or letter writer:
  1. Sara Riscado (EUI), 2012, current placement: Bank of Portugal
  2. Fernando Jose Perez Forero (UPF), 2013, current placement: Central Bank of Peru

3. Andrew Hanson (UNC), 2020, current placement: University of Tennessee
4. Maggie Jacobson (IU), 2020, current placement: Federal Reserve Board of Governors
5. Wandi Zhang (IU), 2020, current placement: Citigroup
6. Fabio Gomez-Rodriguez (IU), 2021, current placement: Lehigh University
7. Geeta Garg (IU), 2021, current placement: JP Morgan Chase
8. Won Suk Chung (IU), 2021, current placement: Bank of Korea
9. Xiaoxue (Shirley) Song (IU), ongoing
10. Seokil Kang (IU), ongoing
11. Hee Soo Kim (IU), ongoing (chair)
12. Cesar Salinas (IU), ongoing
13. Do Yeon Pyun (IU), ongoing
14. Kelin Lu (IU), ongoing
15. Seongbo Sim (IU), ongoing (chair)
16. Byung Goog Park(IU), ongoing (chair)

- Honors thesis supervisor:
  1. Christian Sayers (2020, joint with Stefan Weiergräber)
- Co-organizer, Barcelona GSE workshop on Time Series Analysis in Macro and Finance (June 2013)
- Co-organizer, Richmond Fed workshop on Fiscal Policy and Macroeconomics (October 2018)
- Program committee member, annual meeting of the International Association of Applied Econometrics (IAAE) 2021
- University service at IU: Macroeconomic Subcommittee (2021 - )