

## Michael T. Owyang -- Senior Economic Policy Advisor

**Joined the Bank Staff** October, 2000

**Education**

- Ph.D. Economics  
University of California, San Diego  
2000
- M.A. Economics  
University of California, San Diego  
1996
- B.A. Economics  
University of California, Berkeley  
1992
- B.S. Mechanical Engineering  
University of California, Berkeley  
1992

**Areas of Interest** Time Series Econometrics, Bayesian Econometrics, Markov Switching

### Forthcoming Papers

"Reconsidering the Fed's Inflation Forecasting Advantage," with Amy Guisinger and Michael W. McCracken, FORTHCOMING: *Journal of Money, Credit, and Banking*.

"Age and Gender Differentials in Unemployment and Hysteresis," with Amy Guisinger and Laura E. Jackson, FORTHCOMING: *Studies in Nonlinear Dynamics and Econometrics*.

### Journal Publications

"A Time-Varying Threshold STAR Model with Applications," with Michael J. Dueker, Laura E. Jackson, and Martin Sola, *Oxford Open Economics*, 2023, Vol. 2, pp. 1-12.

- "Forecasting Low Frequency Macroeconomic Events with High Frequency Data," with Ana B. Galvão, *Journal of Applied Econometrics*, November/December 2022, Vol. 37, No. 7, pp. 1314-1333.
- "FRED-SD: A Real-Time Database for State-Level Data with Forecasting Applications," with Kathryn O. Bokun, Laura E. Jackson, and Kevin L. Kliesen, *International Journal of Forecasting*, January-March 2023, Vol. 39, No. 1, pp. 279-297.
- "Industrial Connectedness and Business Cycle Comovements," with Amy Guisinger and Daniel Soques, *Econometrics and Statistics*, January 2024, Vol. 29, pp. 132-149.  
Publisher DOI: <https://www.sciencedirect.com/science/article/abs/pii/S2452306221000988>
- "Contagious Switching," with Jeremy M. Piger and Daniel Soques, *Journal of Applied Econometrics*, March 2022, Vol. 37, No. 2, pp. 415-432.  
Publisher DOI: <https://doi.org/10.1002/jae.2874>
- "Business Cycles Across Space and Time," with Neville Francis and Daniel Soques, *Journal of Money, Credit, and Banking*, June 2022, Vol. 54, No. 4, pp. 921-952.
- "Binary Conditional Forecasts," with Michael W. McCracken and Joseph McGillicuddy, *Journal of Business & Economic Statistics*, 2022, Vol. 40, No. 3, pp. 1246-1258.  
Publisher DOI: <https://www.tandfonline.com/doi/full/10.1080/07350015.2021.1920960>
- "Real-Time Forecasting and Scenario Analysis using a Large Mixed-Frequency Bayesian VAR," with Michael W. McCracken and Tatevik Sekhposyan, *International Journal of Central Banking*, December 2021, Vol. 17, No. 5, pp. 327-367.  
Publisher DOI: <https://www.ijcb.org/journal/ijcb21q5a8.htm>
- "International Stock Comovements with Endogenous Clusters," with Laura Coroneo and Laura E. Jackson, *Journal of Economic Dynamics & Control*, July 2020, Vol. 116, 103904, pp. 1-19.
- "Asymmetry, Complementarities, and State Dependence in Federal Reserve Forecasts," with Julieta Caunedo, Riccardo DiCecio, and Ivana Komunjer, *Journal of Money, Credit, and Banking*, February, 2020, Vol. 52, No. 1, pp. 205-228.
- "The Nonlinear Effects of Uncertainty Shocks," with Laura E. Jackson and Kevin L. Kliesen, *Studies in Nonlinear Dynamics and Econometrics*, September 2020, Vol. 24, No. 4, 20190024, pp. online.  
Publisher DOI: <https://www.degruyter.com/view/journals/snnde/24/4/article-20190024.xml>
- "How Has Empirical Monetary Policy Analysis Changed After the Financial Crisis?" with Neville Francis and Laura E. Jackson, *Economic Modelling*, January 2020, Vol. 84, No. 1, pp. 309-321.

"Financial Stress Regimes and the Macroeconomy," with Ana B. Galvão, *Journal of Money, Credit, and Banking*, October 2018, Vol. 50, No. 7, pp. 1479-1505.

"Nonlinearities, Smoothing and Countercyclical Monetary Policy," with Laura E. Jackson and Daniel Soques, *Journal of Economic Dynamics & Control*, October 2018, Vol. 95, pp. 136-154.

"An Endogenously Clustered Factor Approach to International Business Cycles," with Neville Francis and Özge Savascin, *Journal of Applied Econometrics*, November/December 2017, Vol. 32, No. 7, pp. 1261-1276.  
Publisher DOI: <https://doi.org/10.1002/jae.2577>

"Debt and Stabilization Policy: Evidence from a Euro Area FAVAR," with Laura E. Jackson and Sarah Zubairy, *Journal of Economic Dynamics & Control*, August 2018, Vol. 93, pp. 67-91.

"A State-Level Analysis of Okun's Law," with Amy Guisinger, Rubén Hernández-Murillo, and Tara M. Sinclair, *Regional Science and Urban Economics*, January 2018, Vol. 68, pp. 239-248.

"Clustered Housing Cycles," with Rubén Hernández-Murillo and Margarita Rubio, *Regional Science and Urban Economics*, September 2017, Vol. 66, No. 1, pp. 185-197.

"Countercyclical Policy and the Speed of Recovery After Recessions," with Neville Francis and Laura E. Jackson, *Journal of Money, Credit, and Banking*, June 2018, Vol. 50, No. 4, pp. 675-704.

"Did Affordable Housing Legislation Contribute to the Subprime Securities Boom?" with Andra C. Ghent and Rubén Hernández-Murillo, *Real Estate Economics*, Winter 2015, Vol. 43, No. 4, pp. 820-854.  
Publisher DOI: <http://onlinelibrary.wiley.com/doi/10.1111/1540-6229.12110/epdf>

"Forecasting National Recessions Using State Level Data," with Jeremy M. Piger and Howard J. Wall, *Journal of Money, Credit, and Banking*, August 2015, Vol. 47, No. 5, pp. 847-866.

"A Flexible Finite-Horizon Alternative To Long-run Restrictions With An Application To Technology Shocks," with Riccardo DiCecio, Neville Francis, and Jennifer E. Roush, *Review of Economics and Statistics*, October 2014, Vol. 96, No. 4, pp. 638-647.  
Publisher DOI: [https://doi.org/10.1162/REST\\_a\\_00406](https://doi.org/10.1162/REST_a_00406)

"Differences in Subprime Loan Pricing Across Races and Neighborhoods," with Andra C. Ghent and Rubén Hernández-Murillo, *Regional Science and Urban Economics*, September 2014, Vol. 48, pp. 199-215.

"Where is an Oil Shock?" with Kristie M. Engemann and Howard J. Wall, *Journal of Regional Science*, March 2014, Vol. 54, No. 2, pp. 169-185.

- "Are Government Spending Multipliers Greater During Periods of Slack? Evidence from 20th Century Historical Data," with Valerie A. Ramey and Sarah Zubairy, *American Economic Review*, May 2013, Vol. 103, No. 3, pp. 129-134.
- "Who Benefits from Increased Government Spending: A State-Level Analysis," with Sarah Zubairy, *Regional Science and Urban Economics*, May 2013, Vol. 43, No. 3, pp. 445-464.
- "Discordant City Employment Cycles," with Jeremy M. Piger and Howard J. Wall, *Regional Science and Urban Economics*, March 2013, Vol. 43, No. 2, pp. 367-384.
- "The Propagation of Regional Recessions," with James D. Hamilton, *Review of Economics and Statistics*, November 2012, Vol. 94, No. 4, pp. 935-47.
- "Multivariate Forecast Evaluation and Rationality Testing," with Ivana Komunjer, *Review of Economics and Statistics*, November 2012, Vol. 94, No. 4, pp. 1066-80.
- "The Local Effects of Monetary Policy," with Neville Francis and Tatevik Sekhposyan, *B E Journal of Macroeconomics*, March 2012, Vol. 12, No. 2.
- "Do Oil Shocks Drive Business Cycles? Some U.S. and International Evidence," with Kristie M. Engemann and Kevin L. Kliesen, *Macroeconomic Dynamics*, November 2011, Vol. 15, No. 3, pp. 498-517.
- "Whatever Happened to the Business Cycle: A Bayesian Analysis of Jobless Recoveries," with Kristie M. Engemann, *Macroeconomic Dynamics*, November 2010, Vol. 14, No. 5, pp. 709-26.
- "Is Housing the Business Cycle? Evidence from U.S. Cities," with Andra C. Ghent, *Journal of Urban Economics*, May 2010, Vol. 67, No. 3, pp. 336-51.
- "Regional VARs and the Channels of Monetary Policy," with Howard J. Wall, *Applied Economics Letters*, Vol. 16, No. 12, pp. 1191-1194.
- "States and the Business Cycle," with David E. Rapach and Howard J. Wall, *Journal of Urban Economics*, March 2009, Vol. 65, No. 2, pp. 181-194.
- "Measuring the Information Content of the Beige Book: A Mixed Data Sampling," with Michelle T. Armesto, Rubén Hernández-Murillo, and Jeremy M. Piger, *Journal of Money, Credit, and Banking*, February 2009, Vol. 41, No. 1, pp. 35-55.
- "The Economic Performance of Cities: A Markov-Switching Approach," with Jeremy M. Piger, Howard J. Wall, and Christopher H. Wheeler, *Journal of Urban Economics*, November 2008, Vol. 64, No. 3, pp. 538-550.

"A State-Level Analysis of the Great Moderation," with Jeremy M. Piger and Howard J. Wall, *Regional Science and Urban Economics*, November 2008, Vol. 38, No. 6, pp. 578-589.

"Searching For Better Prospects: Endogenizing Falling Job Tenure and Private Pension Coverage," with Leora Friedberg and Tara M. Sinclair, *B E Journal of Economic Analysis & Policy*, August 2006, Vol. 6, No. 1.

"The Information Content of Regional Employment Data for Forecasting Aggregate Conditions," with Rubén Hernández-Murillo, *Economics Letters*, March 2006, Vol. 90, No. 3, pp. 335-39.

Publisher DOI: <http://dx.doi.org/10.1016/j.econlet.2005.08.023>

"What Explains the Varying Monetary Response to Technology Shocks in G-7 Countries?" with Neville Francis and Athena T. Theodorou, *International Journal of Central Banking*, December 2005, Vol. 1, No. 3, pp. 33-71.

"Business Cycle Phases in U.S. States," with Jeremy M. Piger and Howard J. Wall, *Review of Economics and Statistics*, November 2005, Vol. 87, No. 4, pp. 604-16.

"Monetary Policy in a Markov-Switching VECM: Implications for the Cost of Disinflation and the Price Puzzle," with Neville Francis, *Journal of Business & Economic Statistics*, July 2005, Vol. 23, No. 3, pp. 305-13.

"Regime Switching and Monetary Policy Measurement," with Garey Ramey, *Journal of Monetary Economics*, November 2004, Vol. 51, No. 8, pp. 1577-1598.

## **Working Papers**

"A High-Frequency Measure of Income Inequality," with Marie Hogan and Laura E. Jackson, Federal Reserve Bank of St. Louis Working Paper 2024-021A, September 2024.

"Impulse Response Functions for Self-Exciting Nonlinear Models," with Neville Francis and Daniel Soques, Federal Reserve Bank of St. Louis Working Paper 2023-021B, August 2024.

"Reconsidering the Fed's Inflation Forecasting Advantage," with Amy Guisinger and Michael W. McCracken, Federal Reserve Bank of St. Louis Working Paper 2022-001D, October 2023.

"The Evolution of Regional Beveridge Curves," with Hannah G. Shell and Daniel Soques, Federal Reserve Bank of St. Louis Working Paper 2022-037A, November 2022.

"Age and Gender Differentials in Unemployment and Hysteresis," with Amy Guisinger and Laura E. Jackson, Federal Reserve Bank of St. Louis Working Paper 2022-015A, July 2022.

"Tax Progressivity, Economic Booms, and Trickle-Up Economics," with Laura E. Jackson and Christopher Otrok, Federal Reserve Bank of St. Louis Working Paper 2019-034D, June 2022.

"The Low-Frequency Impact of Daily Monetary Policy Shocks," with Neville Francis and Eric Ghysels, Federal Reserve Bank of St. Louis Working Paper 2011-009C, October 2011.

"Identifying Technology Shocks in the Frequency Domain," with Riccardo DiCecio, Federal Reserve Bank of St. Louis Working Paper 2010-025A, August 2010.

"Structural Breaks and Regional Disparities in the Transmission of Monetary Policy," with Howard J. Wall, Federal Reserve Bank of St. Louis Working Paper 2003-008C, January 2005.

"Explaining the Evolution of Pension Structure and Job Tenure," with Leora Friedberg, Federal Reserve Bank of St. Louis Working Paper 2002-022D, October 2002.

"Duration Dependence in Monetary Policy: International Evidence," with Abbigail J. Chiodo, Federal Reserve Bank of St. Louis Working Paper 2002-021A, October 2002.

"Modeling Volcker as a Non-Absorbing State: Agnostic Identification of a Markov-Switching VAR," Federal Reserve Bank of St. Louis Working Paper 2002-018A, August 2002.

### **Articles in Federal Reserve Bank of St. Louis Publications**

"On the Relative Performance of Inflation Forecasts," Federal Reserve Bank of St. Louis *Review*, Second Quarter 2022, Vol. 104, No. 2, pp. 131-48.

"Regional Gasoline Price Dynamics," Federal Reserve Bank of St. Louis *Review*, Third Quarter 2021, Vol. 103, No. 3, pp. 289-314.

"Economic Forecasting: Comparing the Fed with the Private Sector," Federal Reserve Bank of St. Louis *Regional Economist*, Third Quarter 2019, Vol. 27, No. 3.

"Dealing with the Leftovers: Residual Seasonality in GDP," Federal Reserve Bank of St. Louis *Regional Economist*, Fourth Quarter 2018, Vol. 26, No. 4.

"Comparing Measures of Potential Output," Federal Reserve Bank of St. Louis *Review*, Fourth Quarter 2018, Vol. 100, No. 4, pp. 297-316.

"How Do Local Labor Markets Affect Retirement?" Federal Reserve Bank of St. Louis *Review*, Third Quarter 2017, Vol. 99, No. 3, pp. 259-78.

"China's Economic Data: An Accurate Reflection, or Just Smoke and Mirrors?" Federal Reserve Bank of St. Louis *Regional Economist*, Second Quarter 2017, Vol. 25, No. 2.

"Measuring Trends in Income Inequality," Federal Reserve Bank of St. Louis *Regional Economist*, Second Quarter 2016, Vol. 24, No. 2.

"Regional vs. Global: How Are Countries' Business Cycles Moving Together These Days?" Federal Reserve Bank of St. Louis *Regional Economist*, Second Quarter 2015, Vol. 23, No. 2.

"Does the United States Lead Foreign Business Cycles?" Federal Reserve Bank of St. Louis *Review*, Second Quarter 2015, Vol. 97, No. 2, pp. 133-58.

"A Measure of Price Pressures," Federal Reserve Bank of St. Louis *Review*, First Quarter 2015, Vol. 97, No. 1, pp. 25-52.

"Rockets and Feathers: Why Don't Gasoline Prices Always Move in Sync with Oil Prices?" Federal Reserve Bank of St. Louis *Regional Economist*, Fourth Quarter 2014, Vol. 22, No. 4.

"Output and Unemployment: How Do They Relate Today?" Federal Reserve Bank of St. Louis *Regional Economist*, Fourth Quarter 2013, Vol. 21, No. 4.

"Measuring the Effect of School Choice on Economic Outcomes," Federal Reserve Bank of St. Louis *Regional Economist*, Fourth Quarter 2012, Vol. 20, No. 4.

"Disentangling Diverse Measures: A Survey of Financial Stress Indexes," Federal Reserve Bank of St. Louis *Review*, September/October 2012, Vol. 94, No. 5, pp. 369-398.

"Okun's Law over the Business Cycle: Was the Great Recession All That Different?" Federal Reserve Bank of St. Louis *Review*, September/October 2012, Vol. 94, No. 5, pp. 399-418.

"Where There's a Smoking Ban, There's Still Fire," Federal Reserve Bank of St. Louis *Review*, July/August 2012, Vol. 94, No. 4, pp. 265-286.

"Worth Your Weight? Re-examining the Link between Obesity and Wages," Federal Reserve Bank of St. Louis *Regional Economist*, Fourth Quarter 2011, Vol. 19, No. 4.

"Patterns of Interstate Migration in the United States from the Survey of Income and Program Participation," Federal Reserve Bank of St. Louis *Review*, May/June 2011, Vol. 93, No. 3, pp. 169-186.

"Regional Aggregation in Forecasting: An Application to the Federal Reserve's Eighth District," Federal Reserve Bank of St. Louis *Review*, May/June 2011, Vol. 93, No. 3, pp. 207-222.

"Forecasting with Mixed Frequencies," Federal Reserve Bank of St. Louis *Review*, November/December 2010, Vol. 92, No. 6, pp. 521-36.

"Unconventional Oil Production: Stuck in a Rock and a Hard Place," Federal Reserve Bank of St. Louis *Regional Economist*, Third Quarter 2010, Vol. 18, No. 3.

"Nonlinear Effects of School Quality on House Prices," Federal Reserve Bank of St. Louis *Review*, May/June 2010, Vol. 92, No. 3, pp. 185-204.

"A Winning Combination? Economic Theory Meets Sports," Federal Reserve Bank of St. Louis *Regional Economist*, First Quarter 2009, Vol. 17, No. 1.

"Extra Credit: The Rise of Short-term Liabilities," Federal Reserve Bank of St. Louis *Regional Economist*, Second Quarter 2008, Vol. 16, No. 2.

"Splitsville: The Economics of Unilateral Divorce," Federal Reserve Bank of St. Louis *Regional Economist*, First Quarter 2008, Vol. 16, No. 1.

"A Primer on the Empirical Identification of Government Spending Shocks," Federal Reserve Bank of St. Louis *Review*, March/April 2008, Vol. 90, No. 2, pp. 117-132.

"Changing Trends in the Labor Force: A Survey," Federal Reserve Bank of St. Louis *Review*, January/February 2008, Vol. 90, No. 1, pp. 47-62.

"Working Hard or Hardly Working? The Evolution of Leisure in the United States," Federal Reserve Bank of St. Louis *Regional Economist*, First Quarter 2007, Vol. 15, No. 1.

"Social Changes Lead Married Women into Labor Force," Federal Reserve Bank of St. Louis *Regional Economist*, Second Quarter 2006, Vol. 14, No. 2.

"What's in a Name? Reconciling Conflicting Evidence on Ethnic Names," Federal Reserve Bank of St. Louis *Regional Economist*, First Quarter 2006, Vol. 14, No. 1.

"What's in a Name? Reconciling Conflicting Evidence on Ethnic Names," Federal Reserve Bank of St. Louis *Regional Economist*, First Quarter 2006, Vol. 14, No. 1.



"Editor's Introduction," Federal Reserve Bank of St. Louis *Review*, July/August 2005, Vol. 87, No. 4, pp. 429-434.

"So Much for That Merit Raise: The Link between Wages and Appearance," Federal Reserve Bank of St. Louis *Regional Economist*, Second Quarter 2005, Vol. 13, No. 2.

"Keep Your Résumé Current: The Causes Behind Declining Job Tenure," Federal Reserve Bank of St. Louis *Regional Economist*, First Quarter 2005, Vol. 13, No. 1.

"Does Consumer Sentiment Predict Regional Consumption?" Federal Reserve Bank of St. Louis *Review*, March/April 2005, Part 1, Vol. 87, No. 2, pp. 123-135.

"Subjective Probabilities: Psychological Theories and Economic Applications," Federal Reserve Bank of St. Louis *Review*, January/February 2004, Vol. 86, No. 1, pp. 33-48.

"The Use of Long-Run Restrictions for the Identification of Technology Shocks," Federal Reserve Bank of St. Louis *Review*, November/December 2003, Vol. 85, No. 6, pp. 53-66.

"Marriage, Motherhood and Money: How Do Women's Life Decisions Influence Their Wages?" Federal Reserve Bank of St. Louis *Regional Economist*, Second Quarter 2003, Vol. 11, No. 2.

"Monetary Policy: The Whole Country Gets the Same Treatment, but Results Vary," Federal Reserve Bank of St. Louis *Regional Economist*, First Quarter 2003, Vol. 11, No. 1.

"A Case Study of a Currency Crisis: The Russian Default of 1998," Federal Reserve Bank of St. Louis *Review*, November/December 2002, Vol. 84, No. 6, pp. 7-18.

"For Love or Money: Why Married Men Make More," Federal Reserve Bank of St. Louis *Regional Economist*, Second Quarter 2002, Vol. 10, No. 2.

"Not Your Father's Pension Plan: The Rise of 401(k) and Other Defined Contribution Plans," Federal Reserve Bank of St. Louis *Review*, January/February 2002, Vol. 84, No. 1, pp. 23-34.

"Low Unemployment: Old Dogs or New Tricks?" Federal Reserve Bank of St. Louis *Regional Economist*, Fourth Quarter 2001, Vol. 9, No. 4.

"Persistence, Excess Volatility, and Volatility Clusters in Inflation," Federal Reserve Bank of St. Louis *Review*, November/December 2001, Vol. 83, No. 6, pp. 41-52.

## **Other Publications**

"Specification and Estimation of Bayesian Dynamic Factor Models: A Monte Carlo Analysis with an Application to Global House Price Comovement," with Laura E. Jackson, M. Ayhan Kose, and Christopher Otrok, in *Advances in Econometrics*, Emerald, 2016, Chapter 9, pp. 361-400