

# Saeed Zaman

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## **Professional Experience**

*Research Economist II*, Federal Reserve Bank of Cleveland, January 2022-

*Economist*, Federal Reserve Bank of Cleveland, 2014-2021

*Senior Economic Analyst*, Federal Reserve Bank of Cleveland, 2010-2013

*Economic Analyst*, Federal Reserve Bank of Cleveland, 2004-2010

*Research Analyst*, Federal Reserve Bank of Cleveland, 2002-2004

*Student Intern*, Center for Scholarly Technology, University of Southern California, 2001-2002

## **Education**

**Ph.D.**, *Economics* (2021), University of Strathclyde, Glasgow, UK

*Supervisors: Professor Gary Koop (primary) and Professor Julia Darby (secondary)*

**Postgraduate Diploma**, *Research Methodology in Business and Management* (2021), University of Strathclyde, Glasgow, UK

**M.A.**, *Economics* (2012), Cleveland State University, Cleveland, OH, USA

**M.S.**, *Computer Science* (2002), University of Southern California, CA, USA

**B.S.**, *Computer System Engineering* (2000), G.I.K Institute of Engineering Sciences, Pakistan

## **Research Interests**

Primary: Empirical Macroeconomics; Inflation; Nowcasting/Forecasting; Monetary Policy

Secondary: Bayesian Econometrics; Energy Economics; Empirical Finance; Machine Learning

## **Academic Journal Publications**

**“Post-COVID Inflation Dynamics: Higher for Longer”** with Randal Verbrugge (2023), *Journal of Forecasting*, forthcoming  
<https://doi.org/10.1002/for.3070>

**“Improving Inflation Forecasts Using Robust Measures”** with Randal Verbrugge (2023), *International Journal of Forecasting*, forthcoming  
<https://doi.org/10.1016/j.ijforecast.2023.05.003>

**“The Hard Road to a Soft Landing: Evidence from a (Modestly) Nonlinear Structural Model”** with Randal Verbrugge (2023), *Energy Economics*, Vol. 123: 106733  
<https://doi.org/10.1016/j.eneco.2023.106733>

**“Real-Time Density Nowcasts of US Inflation: A Model-Combination Approach,”** with Edward Knotek II (2021), *International Journal of Forecasting*, 39: 1736-1760  
<https://doi.org/10.1016/j.ijforecast.2022.04.007>

**“Asymmetric Responses of Consumer Spending to Energy Prices: A threshold VAR approach,”** with Edward Knotek II (2021), *Energy Economics*, 95: 105127 (lead article)  
<https://doi.org/10.1016/j.eneco.2021.105127>

**“Combining Survey Long-Run Forecasts and Nowcasts with BVAR Forecasts Using Relative Entropy,”** with Ellis W. Tallman (2020), *International Journal of Forecasting*, 36(2): 373-398  
<https://doi.org/10.1016/j.ijforecast.2019.04.024>

**“Financial Nowcasts and Their Usefulness in Macroeconomic Forecasting,”** with Edward Knotek II (2018), *International Journal of Forecasting*, 35(4): 1708-1724  
<https://doi.org/10.1016/j.ijforecast.2018.10.012>

**“The Usefulness of the Median CPI in Bayesian VARs used for Macroeconomic Forecasting and Policy,”** with Brent Meyer (2019), *Empirical Economics*, 57(2):603-630  
<https://doi.org/10.1007/s00181-018-1472-1>

**“Nowcasting U.S. Headline and Core Inflation,”** with Edward Knotek II (2017), *Journal of Money, Credit and Banking*, 49(5): 931-968  
<https://doi.org/10.1111/jmcb.12401>

**“Forecasting Inflation: Phillips Curve Effects on Services Price Measures,”** with Ellis W. Tallman (2017), *International Journal of Forecasting*, 33(2): 442-457  
<https://doi.org/10.1016/j.ijforecast.2016.10.004>

**“Evidence of Forward-Looking Loan Loss Provisioning with Credit Market Information”** with Lakshmi B. and James T. (2017), *Journal of Financial Services Research*, 52(3): 191-223  
<https://doi.org/10.1007/s10693-016-0255-0>

**“Credit Market Information Feedback”** with Lakshmi Balasubramanian, Ben Craig, and James Thomson (2016), *Atlantic Economic Journal*, 44(3): 405-407  
<https://doi.org/10.1007/s11293-016-9501-y>

### **Federal Reserve Publications/Policy articles**

**“A Real-Time Assessment of Inflation Nowcasting at the Cleveland Fed”** with Edward Knotek II (2023) Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2023-06 [[link](#)]

**“Adjusting Median and Trimmed-Mean Inflation Rates for Bias Based on Skewness”** with Robert Rich and Randal Verbrugge (2022) Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2022-05 [[link](#)]

**“Whose Inflation Expectations Best Predict Inflation?”** with Randal Verbrugge (2021) Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2021-19 [[link](#)]

**“Cyclical versus Acyclical Inflation: A Deeper Dive”** Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2019-13 [[link](#)]

- Data is [available](#) to download from the San Francisco Fed website

**“Have Inflation Dynamics Changed?”** with Edward Knotek II (2017) Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2017-21 [[link](#)]

**“The Likelihood of 2 Percent Inflation in the Next Three Years”** with Ellis W. Tallman (2016) Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2016-14 [[link](#)]

**“Federal Funds Rates Based on Seven Simple Monetary Policy Rules”** with Edward Knotek II, Randy Verbrugge, Christian Garciga, and Caitlin Treanor (2016) Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2016-07 [[link](#)]

**“Measuring Inflation Forecast Uncertainty”** with Edward Knotek II and Todd E. Clark (2015) Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2015-03 [[link](#)]

**“On the Relationships between Wages, Prices, and Economic Activity”** with Edward Knotek II (2014) Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2014-14 [[link](#)]

**“The Slowdown in Residential Investment and Future Prospects”** with Edward Knotek II (2014) Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2014-10 [[link](#)]

**“Using an Improved Taylor Rule to Predict When Policy Changes Will Occur”** with Charles Carlstrom (2014) Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2014-02 [[link](#)]

***“When Might the Federal Funds Rate Lift Off? Computing the Probabilities of Crossing Unemployment and Inflation Thresholds (and Floors)”*** with Edward Knotek II (2013) Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2013-19 [[link](#)]

***“Improving Inflation Forecasts in the Medium to Long Term”*** (2013), Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2013-16 [[link](#)]

***“Forecasting Implications of the Recent Decline in Inflation”*** with Todd E. Clark (2013), Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2013-15 [[link](#)]

***“Forecasting Inflation? Target the Middle”*** with Brent Meyer and Guhan Venkatu (2013), Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2013-05 [[link](#)]

***“Where Would the Federal Funds Rate Be, If It Could Be Negative?”*** with Ellis W. Tallman (2012), Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2012-15, This commentary attracted overwhelming media attention, and generally was very well liked [[link](#)]

***“Macroeconomic Models, Forecasting, and Policymaking”*** with Andrea Pescatori (2011), Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2011-19 [[link](#)]

***“Food and Energy Price Shocks: What Other Prices Are Affected?”*** with Todd E. Clark (2011), Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2011-14 [[link](#)]

***“Buy a Home or Rent? A Better Way to Choose”*** with Emre Ergungor (2011), Federal Reserve Bank of Cleveland *Economic Commentary*, no 2011-06 [[link](#)]

***“Unemployment after the Recession: A New Natural Rate?”*** with Murat Tasci (2010), Federal Reserve Bank of Cleveland *Economic Commentary*, no. 2010-11 [[link](#)]

***“Are We Engineering Ourselves out of Manufacturing Jobs?”*** with Mark Schweitzer (2006), Federal Reserve Bank of Cleveland *Economic Commentary*, January 2006 [[link](#)]

### **Working Papers**

***“Nowcasting Inflation”*** with Edward Knotek II, Federal Reserve Bank of Cleveland working paper 24-06. [[link](#)] [*Chapter prepared for Handbook of Inflation*]

***“The Effect of Component Disaggregation on Measures of the Median and Trimmed-Mean CPI”*** with Christian Garciga and Randal Verbrugge, Federal Reserve Bank of Cleveland working paper 24-02. [[link](#)] [Under Review]

***“Forecasting Core Inflation and its Goods, Housing, and Supercore Components”*** with Todd Clark and Matthew Gordon, Federal Reserve Bank of Cleveland working paper 23-34. [[link](#)] [Under Review]

*“The Distributional Predictive Content of Measures of Inflation Expectations”* with James Mitchell, Federal Reserve Bank of Cleveland working paper 23-31. [[link](#)] [Under Review]

*“A Unified Framework to Estimate Macroeconomic Stars,”* Federal Reserve Bank of Cleveland working paper no. 21-23r. [[link](#)] [Under Review]

*“A Medium Scale Forecasting Model for Monetary Policy”* with Kenneth Beauchemin, Federal Reserve Bank of Cleveland working paper no. 11-28. [Permanent Working Paper] [[link](#)]

### **Research in Progress**

*“Oil Shocks and US Banks: A SVAR Approach”* with Paolo Gelain and Marco Lorusso [*draft coming soon*]

*“New Model of Trend Inflation Using Disaggregates, Survey Expectations, and Uncertainty”* with Ellis Tallman

*“Asymmetric News Coverage of Energy Price Fluctuations”* with Edward Knotek II

### **Published papers for which I provided research assistance**

“The Incidence of Nominal and Real Wage Rigidities in Great Britain: 1978-98” by Richard Barwell, and Mark Schweitzer, (2007) *The Economic Journal*, Volume 117, Issue 524, pages F553-F569

"Theory, measurement and calibration of macroeconomic models", Paul Gomme and Peter Rupert, *Journal of Monetary Economics*, Volume 54(2007) 460-497

### **Economic Trend Articles (Cleveland Fed)**

[“Explaining Low Inflation: Model-Based Decomposition”](#), November 2015

[“The Gap between Services Inflation and Goods Inflation”](#), June 2015

[“Uncertainty and Risk around the FOMC’s Macroeconomic Forecasts: Back to Normal”](#), June 2014

[“Does Nonfarm Payroll Growth Improve the Taylor Rule?”](#) (with Chuck Carlstrom and Samuel Chapman), February 2013

[“The Credit Environment for Business Loans”](#) (with Yuliya Demyanyk and Kent Cherny), May 2009

“[Fourth District Bank Holding Companies](#)” (with Joseph Haubrich and Kent Cherny), April 2009

“[FDIC Funds](#)” (with Joseph Haubrich and Kent Cherny), March 2009

“[Fourth District Community Banks](#)” (with Joseph Haubrich and Kent Cherny), December 2008

“[Business Loan Markets](#)” (with Joseph Haubrich), November 2008

“[Fourth District Bank Holding Company Conditions](#)” (with Joseph Haubrich), July 2008

“[Business Loan Markets](#)” (with Joseph Haubrich), May 2008

“[FDIC Funds](#)” (with Joseph Haubrich), May 2008

“[Fourth District Bank Holding Companies](#)” (with Joseph Haubrich), April 2008

“[Banking Structure](#)” (with Joseph Haubrich), February 2008

“[Business Loan Markets](#)” (with Joseph Haubrich), February 2008

“[Fourth District Community Banks](#)” (with Joseph Haubrich), January 2008

“[Fourth District Community Banks](#)” (with Edward Nosal), December 2007

“[Business Loan Markets](#)” (with Edward Nosal), November 2007

“[Mortgage Lending](#)” (with Edward Nosal), November 2007

“[Fourth District Bank Holding Companies](#)” (with Edward Nosal), October 2007

## **Awards**

***Spirit of Innovation Award:*** for successful development, implementation, and communication of innovative forecasting tool) at the Federal Reserve Bank of Cleveland, 2014

***Strategic Alignment Award:*** at the Federal Reserve Bank of Cleveland, 2005

***Outstanding Academic Achievement Award:*** at University of Southern California, 2001

***Best Senior Year Project Award:*** by the Institute of Electrical and Electronics Engineers (IEEE) at the senior year project competition, 2000

United Way ***Outstanding Volunteer Award*** in 2008, 2009 and 2010 (Technical Coordinator)

### **Tools I helped develop for public use**

Nowcasts for the US Inflation (CPI and PCE). *Daily nowcast estimates* [available here](#)

Prescriptions from Seven Simple Monetary Policy Rules. [Click here](#)

A Simulation based Rent or Buy Calculator. *Should you Rent or Buy?* [Click here](#)

### **Conference and Seminar Presentations**

2024: ASSA/AEA meetings

2023: Swiss National Bank Research Conference; Real-Time Data Analysis, Methods and Applications Conference organized by Bank of Spain; Midwest Econometrics Group (MEG) Conference organized by Cleveland Fed; Computational Finance and Econometrics Annual Conference (virtual)

2022: ESCoE Conference on Economic Measurement; Society of Economic Measurement Annual Conference; Midwest Macroeconomics Spring Conference; 5<sup>th</sup> Vienna Workshop on High-Dimensional Times Series in Macroeconomics and Finance; North American Summer Meetings of the Econometric Society; 30<sup>th</sup> Symposium of the Society of Nonlinear Dynamics and Econometrics (virtual); SUERF European Money and Finance Forum (virtual); 25<sup>th</sup> Central Bank Macroeconomic Modeling Workshop (virtual).

2021: ESCoE Conference on Economic Measurement (virtual); 27<sup>th</sup> International Conference Computing in Economics and Finance (virtual); European Seminar on Bayesian Econometrics (virtual); Post-Graduate Research Away Day, University of Strathclyde (virtual); NBER-NSF Seminar on Bayesian Inference in Econometrics and Statistics (virtual); Real-Time Data Analysis, Methods and Applications Conference organized by Banque de France (virtual); State Bank of Pakistan (invited webinar); Computational Finance and Econometrics Annual Conference (virtual)

2020: Joint Statistical Meetings, Philadelphia (virtual)

2019: Post-Graduate Research Away Day, University of Strathclyde, Glasgow, UK; Invited Seminar presentation at Ohio University; 6<sup>th</sup> Rimini Time Series Econometrics Workshop; 94<sup>th</sup> Annual Conference Western Economic Association; Midwest Econometrics Group (MEG) Conference, Columbus, Ohio

2018: Post-Graduate Research Away Day, University of Strathclyde, Glasgow, UK; Day-Ahead Inflation Workshop, Cleveland, OH; Society of Economic Measurement annual conference, Xiamen, China; International Institute of Forecasters' 37<sup>th</sup> International Symposium on

Forecasting, Boulder, Colorado; 2<sup>nd</sup> Central Bank Forecasting Conference at Bank of England, London, UK; Midwest Econometrics Group (MEG) Conference, Madison, Wisconsin; Midwest Macroeconomics Fall Conference, Nashville, Tennessee

2017: Midwest Econometrics Group (MEG) conference, College Station, Texas; Invited Seminar presentation at Reserve Bank of New Zealand, Wellington, NZ; International Institute of Forecasters' 37th International Symposium on Forecasting, Cairns, Australia

2016: Third annual conference of the International Association of Applied Econometrics, Milan, Italy; International Institute of Forecasters' 36th International Symposium on Forecasting, Santander, Spain; 24<sup>th</sup> Society of Nonlinear Dynamics and Econometrics, Alabama

2015: Federal Reserve System Committee on Macroeconomics Day-Ahead Workshop on Inflation, Cleveland, OH; International Institute of Forecasters' 35th International Symposium on Forecasting, Riverside, California; Eastern Economics Association 41<sup>st</sup> Annual Conference, NY

2014: Interagency (FDIC, OCC, and Philadelphia Fed) Risk Quantification Forum, Washington D.C.; Financial Engineering and Banking Society (FEBS), Surrey, UK

### **Conference and Seminar Discussions**

2023: "*Pandemic Priors*," by Danilo Cascildi-Garcia (Federal Reserve Board). Federal Reserve System Econometrics Meetings.

2023: "*A Simple Correction for Misspecification in Trend-Cycle Decompositions with an Application to Estimating Rstar*," by James Morley (University of Sydney), Trung Duc Tran (University of Sydney), and Benjamin Wong (Monash University). Virtual Time Series Seminar

2019: "*Nominal GDP Targeting for a Speedier Economic Recovery*," by David Eagle (Eastern Washington University). Western Economic Association 94<sup>th</sup> Conference, San Francisco, CA

2015: "*The State Dependent Effects of Monetary Policy on Asset Prices: Risk Premium and Bubbles*," by Cheng Zhou (Texas A&M). Eastern Economic Association 41<sup>st</sup> Conference, NY

### **Teaching Experience**

*Guest Lecture*, Federal Reserve and Monetary Policy, Executive MBA Class, University of Wisconsin, Oshkosh, December 2018

*Guest Lecture*, Federal Reserve and Monetary Policy, Undergraduate Money and Banking, Kent State University, April 2019



## **Professional Development**

*Barcelona Graduate School of Economics: Macroeconometrics Summer School (2018)*

*Federal Reserve Bank of New York: 41<sup>st</sup> Central Banking Seminar (Oct. 2017; by nomination)*

*University of Pennsylvania: Penn Institute for Economic Research (PIER) Workshop on Quantitative Tools for Macroeconomic Policy Analysis (May 2016)*

*Northwestern University: Advanced Workshop for Central Bankers (on frontier models and techniques in Monetary Economics) by Center for International Macroeconomics (2009)*

*National Association of Business Economics (NABE): Applied Econometrics (2008); Applied Time Series Analysis and Forecasting (2010); Economic Measurement Seminar (2011)*

*Timberlake Consultants: Time Series Analysis and Forecasting using Stata (2007)*

## **Professional Activities**

***Referee services:*** *The Review of Economics and Statistics; Journal of Econometrics; Journal of Business and Economic Statistics; Journal of Applied Econometrics; Journal of Money, Credit and Banking; International Journal of Forecasting; Journal of Forecasting; Journal of Economic Dynamics and Control; Energy Economics; The Energy Journal; Empirical Economics; Economic Modeling; Economia; Journal of Business Cycle Research; Journal of Economic Studies; Open Economies Review; Oxford Open Economics; Contemporary Economics*

***Affiliations:*** *American Economic Association, European Economic Association, Society of Econometrics; International Institute of Forecasters; Society for Nonlinear Dynamics and Econometrics; Euro Area Business Cycle Network; National Association of Business Economics; the Energy Institute*

***Other:*** *Co-organizer of the conference on Real-Time Data Analysis, Methods, and Applications, 2022 ([link](#)). Program Committee member for the 2022 annual conference of the Society for Economic Measurement ([link](#)). Scientific Program Committee member for the 17<sup>th</sup> International Conference of the Computational and Financial Econometrics ([link](#)). Scientific Program Committee member and local organizer of the 2023 Meeting of the Midwest Econometrics Group ([link](#)).*

## **Computing Skills**

*Software Languages: C/C++, Prolog, UNIX, SQL, Macromedia ColdFusion, Java Server Pages (JSP), Perl, PHP, XML, JavaScripting*

*Econometric/Statistical Packages:* SAS, STATA, RATS, EVIEWS, MATLAB (proficient), Gauss, R, Python, and Dynare

*Economic Research Tools/DATA:* Bloomberg, Haver Analytics, Current Population Survey Utilities (Unicon), Census, Panel Study of Income Dynamics, Integrated Public Use Microdata Series (IPUMS), ArcGIS; Federal Reserve Senior Loan Officer Opinion Survey (SLOOS); Confidential Supervisory CAMELS data; COMPUSTAT

## **Personal**

Citizenship: USA, Pakistan

Languages: Urdu (native), English (fluent), Arabic (read and write), Hindi (speak fluently)

## **References**

Barry Boehm (Email: [boehm@usc.edu](mailto:boehm@usc.edu) Phone: (213) 740-8163)  
Distinguished Professor of Computer Science and TRW Professor in Software Engineering,  
University of Southern California, US

Todd Clark (Email: [todd.clark@clev.frb.org](mailto:todd.clark@clev.frb.org) Phone: (216) 579-2015)  
Senior Vice President, Federal Reserve Bank of Cleveland, US

Edward Knotek II (Email: [Edward.knotek@clev.frb.org](mailto:Edward.knotek@clev.frb.org) Phone: (216) 579-2180)  
Research Director, Senior Vice President, Federal Reserve Bank of Cleveland, US

Gary Koop (Email: [gary.koop@strath.ac.uk](mailto:gary.koop@strath.ac.uk))  
Professor, Department of Economics, University of Strathclyde, Glasgow, UK

Vasilios Kosteas (Email: [b.kosteas@csuohio.edu](mailto:b.kosteas@csuohio.edu) Phone: (216) 687-4526)  
Chair and Professor, Department of Economics, Cleveland State University, US

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Professor, Economics department University of California Santa Barbara, US

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Executive Vice President, Federal Reserve Bank of Cleveland, US