

# Giovanni Nicolò

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Division of Monetary Affairs  
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Citizenship: Italian

Research areas: Macroeconomics, Monetary Economics and Bayesian Econometrics

## Education

University of California, Los Angeles  
Ph.D., Economics  
M.A., Economics

*Jun 2018*

*Sep 2014*

Bocconi University, Milan  
M.A., Economics, 110/110 *cum laude*  
B.A., Institutions and Financial Markets Management, 110/110

*Apr 2011*

*Jun 2008*

## Employment

Board of Governors of the Federal Reserve System, Washington DC  
Senior Economist, Monetary Affairs Division  
Economist, Monetary Affairs Division  
Dissertation Fellow, Monetary Affairs Division

*Aug 2021 - Present*

*Aug 2018 - Aug 2021*

*Jun 2017 - Sep 2017*

National Institute of Economic and Social Research, London  
Visitor, Research Division

*Sep 2016 - Dec 2016*

Federal Reserve Bank of St. Louis  
Dissertation Fellow, Research Division

*Jun 2016 - Jul 2016*

European Central Bank, Frankfurt am Main  
Consultant, Directorate General Research  
Research Assistant, Directorate General Research

*Mar 2015 - Aug 2015*

*Sep 2011- Jul 2012*

## Working Papers

[“Inflation and Real Activity over the Business Cycle,”](#) with [Francesco Bianchi](#) and [Dongho Song](#).  
March 2023.

We study the relation between inflation and the real economy over the business cycle. We employ a Trend-Cycle VAR model to control for low-frequency movements in inflation, unemployment, and growth that are pervasive in the post-WWII period. We show that cyclical fluctuations of inflation are related to cyclical movements in real activity and unemployment, in line with what is implied by the New Keynesian framework. We then discuss the reasons for which our results relying on a Trend-Cycle VAR differ from the findings of previous studies based on VAR analysis. We explain empirically and theoretically how to reconcile these differences.

“U.S. Monetary Policy and Indeterminacy,” R&R at *Journal of Applied Econometrics*. May 2023.

[Note: This paper was previously circulated as “Monetary Policy, Self-Fulfilling Expectations and the U.S. Business Cycle.”]

In this paper, I investigate the stance of U.S. monetary policy in the postwar period. To this end, I show that two features are key: a rich structural model and a parameterization of the indeterminate solution that ensures a sufficient exploration of the indeterminacy region during the estimation procedure. As a result, I estimate a medium-scale model on U.S. macroeconomic data using the novel method proposed by Bianchi and Nicolò (2021) to allow for indeterminacy. The evidence of a passive monetary policy in the pre-1979 period is pervasive and robust to the use of alternative model specifications and data. By contrast, the evidence of an active stance after 1979 is overturned if the period of the Volcker disinflation is excluded or if the model is estimated including a time-varying inflation target and data on inflation expectations.

## Publications

“A Generalized Approach to Indeterminacy in Linear Rational Expectations Models,” with Francesco Bianchi, *Quantitative Economics*, 2021, vol. 21, no. 3, pp. 843-868. [Prepublication version](#).

We propose a novel approach to deal with the problem of indeterminacy in Linear Rational Expectations models. The method consists of augmenting the original state space with a set of auxiliary exogenous equations to provide the adequate number of explosive roots in presence of indeterminacy. The solution in this expanded state space, if it exists, is always determinate, and is identical to the indeterminate solution of the original model. The proposed approach accommodates determinacy and any degree of indeterminacy, and it can be implemented even when the boundaries of the determinacy region are unknown. Thus, the researcher can estimate the model by using standard packages without restricting the estimates to the determinacy region. We apply our method to estimate the New-Keynesian model with rational bubbles by Galí (2017) over the period 1982:Q4 until 2007:Q3. We find that the data support the presence of two degrees of indeterminacy, implying that the central bank was not reacting strongly enough to the bubble component.

“Some International Evidence for Keynesian Economics without the Phillips Curve,” with Roger E. A. Farmer, *The Manchester School*, 2021, vol. 89, no. S1, pp. 1-22. Available as [NBER WP 25743](#) and [VoxEU article](#).

Farmer and Nicolò (2018) show that the Farmer Monetary (FM)-Model outperforms the three-equation New-Keynesian (NK)-model in post-war U.S. data. In this paper, we compare the marginal data density of the FM-model with marginal data densities for determinate and indeterminate versions of the NK-model for three separate samples using U.S., U.K. and Canadian data. We estimate versions of both models that restrict the parameters of the private sector equations to be the same for all three countries. Our preferred specification is the constrained version of the FM-model which has a marginal data density that is more than 30 log points higher than the NK alternative. Our findings also demonstrate that cross-country macroeconomic differences are well explained by the different shocks that hit each economy and by differences in the ways in which national central banks reacted to those shocks.

“Keynesian Economics Without the Phillips Curve,” with Roger E. A. Farmer, *Journal of Economic Dynamics and Control*, April 2018, vol. 89, pp. 137-150. [Prepublication version](#).

We extend Farmer’s (2012b) Monetary (FM) Model in three ways. First, we derive an analog of the Taylor Principle and we show that it fails in U.S. data. Second, we use the fact that the model displays dynamic indeterminacy to explain the real effects of nominal shocks. Third, we use the fact that the model displays steady-state indeterminacy to explain the persistence of unemployment. We show that the FM model outperforms the New-Keynesian model and we argue that its superior performance arises from the fact that the reduced form of the FM model is a VECM as opposed to a VAR.

“Solving and Estimating Indeterminate DSGE Models,” with Roger E. A. Farmer and Vadim Khramov, *Journal of Economic Dynamics and Control*, 2015, vol. 54, pp. 17-36.

We propose a method for solving and estimating Linear Rational Expectations models that exhibit indeterminacy and we provide step-by-step guidelines for implementing this method in the Matlab-based packages Dynare and Gensys. Our method redefines a subset of expectational errors as new fundamentals. This redefinition allows us to treat indeterminate models as determinate and to apply standard solution algorithms. We prove that our method is equivalent to the solution method proposed by Lubik and Schorfheide (2003, 2004), and using the New-Keynesian model described in Lubik and Schorfheide (2004), we demonstrate how to apply our theoretical results with a practical exercise.

## Conferences, Seminars & Discussions

- Conferences: NBER DSGE Fall Workshop (Dallas Fed, Nov 2022), Central Bank Research Association 2022 Annual Meeting (UPF, Aug 2022), European Summer Meeting of the Econometric Society (Bocconi University, Aug 2022), International Association for Applied Econometrics (King’s College London, Jun 2022), Theories and Methods in Macroeconomics (King’s College London, Apr 2022)
- New Approaches for Modelling Expectations in Economics (BoE, Dec 2019), XXI Annual Inflation Targeting Conference (Banco Central do Brasil, May 2019), Theories and Methods in Macroeconomics (IAB, Nuremberg, Germany, Mar 2019)
- Advances in Applied Macro-Finance (Bilgi University, Istanbul, Dec 2018), Midwest Econometrics Group Conference (UW-Madison, Oct 2018)
- European Winter Meeting of the Econometric Society (Barcelona GSE, Dec 2017), Monetary Affairs Workshop (Federal Reserve Board, Aug 2017), The Society for Economic Measurement’s Fourth Conference (MIT, Jul 2017), Applications of Behavioral Economics, and Multiple Equilibrium Models to Macroeconomic Policy Conference (BoE, Jul 2017), Asian Meeting of the Econometric Society (Hong Kong, Jun 2017), NBER-NSF Conference on Bayesian Inference in Econometrics and Statistics (Washington University in St. Louis, May 2017)
- University of Warwick (UK, Nov 2016), National Institute of Economic and Social Research (London, Nov 2016), 12th Dynare Conference (Bank of Italy, Sep 2016), Presentation to the President of the Federal Reserve Bank of St. Louis, James Bullard (Jul 2016), Society for Economic Dynamics (SED, Toulouse, Jun 2016), Federal Reserve Bank of St. Louis (Jun 2016), CEPR-IMFS New Methods for Macroeconomic Modeling, Model Comparison and Policy Analysis (Frankfurt, Apr 2016), NBER Multiple Equilibria and Financial Crises (NYU, Feb 2016)
- NBER Summer Institute (Boston, Jul 2015), European Central Bank (Frankfurt, Jun 2015)
- Seminars: Banque de France (Dec 2019), University of Virginia (Nov 2019), Université du Québec à Montréal (Oct 2019), University of California, Irvine (Apr 2018)
- Discussions: *Golden Fetters and the Causal Effects of Countercyclical Monetary Policy*, by Kris Mitchener (Santa Clara University) and Goncalo Pina (Santa Clara University) *Uncertainty and Monetary Policy in the US: A Journey Into Non-Linear Territory*, by Giovanni Pellegrino (Aarhus University)

Organization: Scientific Committee for the FRB-NYFED Conference on Developments in Empirical Macro, May 30-31, 2019

## Academic Refereeing

American Economic Review: Insights; American Economic Journal: Macroeconomics; Decisions in Economics and Finance; Economics Bulletin; Economics Letters; Emerging Markets Review; European Economic Review; International Journal of Central Banking; Journal of Applied Econometrics; Journal of Econometrics; Journal of Economics and Business; Journal of Economic Dynamics and Control; Journal of International Money and Finance; Journal of Macroeconomics; Journal of Monetary Economics; Journal of Money, Credit and Banking; Macroeconomic Dynamics; Review of Economic Dynamics; SN Business & Economics.

## Fellowships, Awards and Prizes

Dissertation Year Fellowship: a.y. 2017-2018  
Marcia and Herbert Howard Graduate Fellowship, Best Paper Award, 2017  
UCLA Alumni Association Fellowship Award: a.y. 2016-2017  
Graduate University Fellowship: a.y. 2012-2013, a.y. 2013-2014  
UCLA Graduate Dean Scholarship Award: Fall 2012, Summer 2013

## Academic Trainings

Princeton University, *Sep 11-13, 2015*  
Princeton Initiative: "Macro, Money and Finance," taught by Markus Brunnermeier and Yuliy San-nikov  
European University Institute, *May 15-17, 2012*  
EABCN Training School: "Forecasting Inflation," taught by Jonathan Wright

## Teaching Assistant

### *Graduate*

Ph.D. course, Macroeconomic Theory (University of Warwick): *Fall 2016* (Prof. Roger Farmer)  
ECON 406, Money and Banking: *Spring 2017* (Prof. Andrew Atkeson)  
ECON 402B, Applied Macroeconomics: *Winter 2017* (Prof. Roger Farmer)

### *Undergraduate*

ECON 102, Macroeconomic Theory: *Spring 2014, Fall 2014, Fall 2015, Winter 2016, Spring 2016*  
ECON 2, Principles of Economics (macroeconomics): *Fall 2013, Winter 2014*  
ECON 1, Principles of Economics (microeconomics): *Winter 2015*

## References

Prof. Roger E. A. Farmer  
Department of Economics  
UCLA  
[rfarmer@econ.ucla.edu](mailto:rfarmer@econ.ucla.edu)

Prof. Aaron Tornell  
Department of Economics  
UCLA  
[tornell@econ.ucla.edu](mailto:tornell@econ.ucla.edu)

Prof. Francesco Bianchi  
Department of Economics  
Duke University  
[francesco.bianchi@duke.edu](mailto:francesco.bianchi@duke.edu)

Prof. Vincenzo Quadrini  
Department of Finance and Business Economics  
Marshall School of Business, USC  
[quadrini@usc.edu](mailto:quadrini@usc.edu)

## Skills and Languages

Programming: Matlab, Stata,  $\LaTeX$ , Scientific WorkPlace, LyX  
Languages: Italian (Native language), English (Fluent), Spanish (Fluent), Portuguese (Fluent)

## Vox CEPR's Policy Portal

Video Vox: "[Psychology and the Economy](#)," Bank of England, July 2017.

Last updated: May 10, 2023