Giovanni Nicolò

Federal Reserve Board
Division of Monetary Affairs
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Personal

Citizenship: Italian

Birth date: May 6, 1986

Research Areas

Macroeconomics, Monetary Economics and Bayesian Econometrics

Education

Ph.D., Economics — *Jun 2018*
University of California, Los Angeles

M.A., Economics — *Sep 2014*
University of California, Los Angeles

M.A., Economics — *Apr 2011*
Bocconi University, Milan, 110/110 cum laude

B.A., Institutions and Financial Markets Management — *Jun 2008*
Bocconi University, Milan, 110/110

Employment

Board of Governors of the Federal Reserve System, Washington DC — *Aug 2018 - Present*
Economist, Monetary Affairs Division

Board of Governors of the Federal Reserve System, Washington DC — *Jun - Sep 2017*
Dissertation Fellow, Monetary Affairs Division

National Institute of Economic and Social Research, London — *Sep - Dec 2016*
Visitor, Research Division

Federal Reserve Bank of St. Louis — *Jun - Jul 2016*
Dissertation Fellow, Research Division

European Central Bank, Frankfurt am Main — *Mar - Aug 2015*
Consultant, Directorate General Research

European Central Bank, Frankfurt am Main — *Sep 2011- Jul 2012*
Research Assistant, Directorate General Research

Working Papers

"Monetary Policy, Expectations and Business Cycles in the U.S. Post-War Period," R&R at *Journal of Applied Econometrics*.

This paper examines the interactions between monetary policy and the formation of expectations to explain U.S. business cycle fluctuations in the post-war period. I estimate a conventional medium-scale New-Keynesian model, in which I relax the assumption that the central bank pursued an 'active' monetary policy — i.e. that stabilizes inflation and output growth — over this entire period. I find that between 1955 and 1979 monetary policy was 'passive', and structural shocks de-anchored inflation expectations from the central bank's long-run target. Fundamental productivity and cost shocks were the primary cause of volatility and propagated via persistent self-fulfilling inflationary expectations. By contrast, non-fundamental 'sunspot' shocks, caused by unexpected changes in inflation expectations, were insignificant sources of uncertainty.

Publications

"A Generalized Approach to Indeterminacy in Linear Rational Expectations Models," with Francesco Bianchi, *accepted at Quantitative Economics*.

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*, forthcoming 2019. 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: New Approaches for Modelling Expectations in Economics (BoE, Dec 2-3, 2019), XXI Annual Inflation Targeting Conference (Banco Central do Brasil, May 23, 2019), Theories and Methods in Macroeconomics (IAB, Nuremberg, Germany, Mar 23, 2019)

Advances in Applied Macro-Finance (Bilgi University, Istanbul, Dec 4, 2018), Midwest Econometrics Group Conference (UW-Madison, Oct 27, 2018)

European Winter Meeting of the Econometric Society (Barcelona GSE, Dec 13, 2017), Monetary Affairs Workshop (Federal Reserve Board, Aug 15, 2017), The Society for Economic Measurement's Fourth Conference (MIT, Jul 26-28, 2017), Applications of Behavioral Economics, and Multiple Equilibrium Models to Macroeconomic Policy Conference (BoE, Jul 3-4, 2017), Asian Meeting of the Econometric Society (Hong Kong, Jun 3-5, 2017), NBER-NSF Conference on Bayesian Inference in Econometrics and Statistics (Washington University in St. Louis, May 26-27, 2017)

University of Warwick (UK, Nov 15, 2016), National Institute of Economic and Social Research (London, Nov 11, 2016), 12th Dynare Conference (Bank of Italy, Sep 30, 2016), Presentation to the President of the Federal Reserve Bank of St. Louis, James Bullard (Jul 7, 2016), Society for Economic Dynamics (SED, Toulouse, Jun 30, 2016), Federal Reserve Bank of St. Louis (Jun 14, 2016), CEPR-IMFS New Methods for Macroeconomic Modeling, Model Comparison and Policy Analysis (Frankfurt, Apr 6, 2016), NBER Multiple Equilibria and Financial Crises (NYU, Feb 27, 2016)

NBER Summer Institute (Boston, Jul 9, 2015), European Central Bank (Frankfurt, Jun 12, 2015)

Seminars: Banque de France (Dec 9, 2019), University of Virginia (Nov 13, 2019), Université du Québec à Montréal (Oct 11, 2019), University of California, Irvine (Apr 11, 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

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 Refereeing

American Economic Journal: Macroeconomics, Decisions in Economics and Finance, Economics Bulletin, Economics Letters, Journal of Applied Econometrics, Journal of Economics and Business, Journal of Macroeconomics, Journal of Monetary Economics, Macroeconomic Dynamics, Review of Economic Dynamics, Society for Computational Economics

Academic Trainings

Princeton University, *Sep 11-13, 2015*
Princeton Initiative: "Macro, Money and Finance," taught by Markus Brunnermeier and Yuliy Sannikov

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

Prof. Aaron Tornell
Department of Economics
UCLA
tornell@econ.ucla.edu

Prof. Francesco Bianchi
Department of Economics
Duke University
francesco.bianchi@duke.edu

Prof. Vincenzo Quadrini
Department of Finance and Business Economics
Marshall School of Business, USC
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.

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