ROBERTO ZUNIGA

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EDUCATION

Columbia University   *2020 -*
Ph.D., Sustainable Development
Reseach interests: Climate Finance, Climate risks, Industrial Organization

Ecole Polytechnique, France   *2016*
B.S. and M.S. in Engineering
Major in Applied Mathematics – Concentration in Probabilistic and Statistical Modeling

Pontificia Universidad Católica de Chile   *2016*
B.S.E. in Industrial Engineering and Diploma in Mathematical Engineering
Conferred with Maximum Distinction and Departmental Honors

RESEARCH – WORK IN PROGRESS

- Zuniga, R. "Climate Risks, Insurance Market Structure and Policy"

- Zuniga, R. "Credit Constraints and Climate Adaptation: Evidence from Rural Credit in Brazil"

- Roberts, M., Schlenker, W., Tran, N. & Zuniga, R. (2024). "Commodity Prices and Volatility in Response to Anticipated Climate Change"

- Thies, S. & Zuniga, R. "Correlated Climate Shocks and Agricultural Trade"

PRE-PHD

- Arroyo-Marioli, F., Bullano, F., Fornero, J., & Zúñiga, R. (2020). *"A Semi-Structural Model for the Chilean Economy"*. Central Bank of Chile Working Paper Series.

- Albagli E., Fornero J., Fuentes M. & Zúñiga R. (2019). *"On the Effects of Confidence and Uncertainty on Aggregate Demand: Evidence from Chile."* Journal Economía Chilena (The Chilean Economy), **22(3), 8-33.**

- Aldunate, R., Bullano, Canales, M., Contreras, G., Fernndez, A., F., Fornero, J., García, B., García, M., Tapia, M., & Zúñiga, R. (2019). *"Estimation of Structural Parameters of the Chilean Economy"* (In spanish). Monetary Policy Report. Central Bank of Chile, Chile.

- Fornero, J. & Zúñiga (2019). *"The Effects of Foreign Shocks on Consumption and Investment in Chile"* (In spanish). Monetary Policy Report. Central Bank of Chile, Chile.

- Bullano, F., Fornero, J. & Zúñiga (2018). *"Estimating Potential GDP and the Output Gap in Chile"* (In spanish). Monetary Policy Report. Central Bank of Chile, Chile.

- Fornero, J. & Zúñiga (2017). *"Potential GDP and the Output Gap in Chile"* (In spanish). Monetary Policy Report. Central Bank of Chile, Chile.

PREVIOUS TEACHING ASSISTANT EXPERIENCE

At Columbia University

· INAF U6669 (Spring 2025) – Advanced Computing for Policy
· INAF U6576 (Fall 2024) – Data and Conflict
· PEPM U6610 (Summer 2023) – Quantitative Methods for Economic Policy
· ECON GR5311 (Fall 2022) – Economic Policy Analysis
· ECON W3211 (Spring 2022) – Intermediate Microeconomics
· INAF U6608 (Spring 2022) – Quantitative Analysis III: Economics of Education Policy
· INAF U6006 (Fall 2021) – Computing in Context

At Pontificia Universidad Católica (PUC) & Universidad de Chile (UCh)
· UCh (2016). Macroeconomics
· PUC (2015-2016). Finance and Project Evaluation
· PUC (2010-2011). Calculus, Linear Algebra, Differential Equations, and Introduction to Economics

AWARDS AND SCHOLARSHIPS

- Dean Fellowship, Columbia University, 2020-2025
- Best Student Prize, Professional Engineers Association, Chile, 2017
- Best Student Prize, Department of Industrial Engineering, PUC, 2016
- Best Student Prize, Department of Mathematical Engineering, PUC, 2016
- Eiffel Excellence Scholarship, Ministère de l'Europe et des Affaires étrangères, France, 2012-2014
- Matricula de Honor Scholarship, PUC, 2010
- Padre Hurtado Prize, PUC, 2009-2015
- Excellence Scholarship, Ministerio de Educación, Chile, 2009-2011

WORK EXPERIENCE

Central Bank of Chile   **May 2016 - June 2020**
Economist, Macroeconomic Analysis   *Santiago, Chile*
· Macroeconomic modeling and forecasting; monetary policy analysis.

Pontificia Universidad Católica   **Mars 2015 - April 2016**
Research Assistant with Professors P. Hernández-Lagos and T. Reyes *Santiago, Chile*
· On the economic impact of national leaders.

Collège de France   **April 2014 - July 2014**
Research Internship at the Mathematical Neuroscience Laboratory with Jonathan Touboul
Paris, France
· Mathematical modelling in neurosciences.

PSA Group (Peugeot)   **July 2013 - September 2013**
Internship at the R&D Department   *Bessoncourt, France*
· Mathematical modelling of car shipping.

TECHNICAL SKILLS & LANGUAGES

Computer Skills	Python, R, Java, Matlab, Stata, Dynare, Eviews, AMPL
Languages	English (advanced), Spanish (native), French (advanced), Portuguese (basic) and Italian (basic)