



CURRICULUM VITAE

María Ignacia Vicuña

Associate Teaching Professor

School of Management, Pontificia Universidad Católica de Chile

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I. Education

- Ph.D. in Statistics, Pontificia Universidad Católica de Chile, 2015
- M.Sc. in Statistics, Pontificia Universidad Católica de Chile, 2010
- B.Sc. in Mathematics, Pontificia Universidad Católica de Chile, 2008

II. Academic Positions & Work Experience

- Assistant Professor, School of Business Administration, Pontificia Universidad Católica de Chile (2015–Present)
- Professor, Faculty of Mathematics, Pontificia Universidad Católica de Chile (2012–2013)
- Professor, School of Engineering and Sciences, Universidad Adolfo Ibáñez (2010–2012)
- Teaching Assistant and Lab Assistant, PUC Chile (2006–2013)
- Teaching Assistant, Universidad Adolfo Ibáñez (2008–2009)

III. Teaching Activities

- Undergraduate: Probability and Statistics I, Introduction to Statistics, Operations Research I, Linear Programming, Statistical Models
- Graduate: Advanced Statistics for Business, Data Science, Big Data and Analytics (MBA UC), Statistics with R (Business Analytics MSc)
- Executive Education: Business Analytics for Managers, Introduction to Data Science for Executives, Big Data for Executives

IV. Consulting and Applied Research

- CCU (2022–2023): Optimization of supply chain forecast systems
- World Bank (2022): Model evaluation for the CMF on interest rate ceilings
- Gasco Magallanes (2022): Evaluation of econometric modeling methodology
- Scotiabank (2020): R and RStudio training for business analysts
- Solventa (2018): R and RStudio integration in business analytics



V. Research Projects

- Forecasting ICU demand during COVID-19 using time-series and machine learning methods
- Evaluation of the impact of interest rate ceilings in credit markets in Chile
- Credit scoring and loan default forecasting using machine learning

VI. Publications

- Vicuña, M.I., Vásquez, C., & Quiroga, B. (2021). Forecasting the 2020 COVID-19 epidemic in Chile. *Frontiers in Public Health*, 9, 416.
- Vásquez, C., Quiroga, B., & Vicuña, M.I. (2022). Nonlinear time-series forecasts for decision support: ICU demand during COVID-19. *International Transactions in Operational Research*.
- Vicuña, M.I. et al. (2021). Credit scoring model using machine learning. Manuscript under review.

VII. Technical Skills

- Programming: R, Python, SQL, SAS
- Tools: Power BI, Tableau, Excel, Git
- Languages: Spanish (native), English (fluent)