# Maikol A. Cerda

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Department of Political Science Yale University

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#### **EMPLOYMENT**

Post-doc Researcher, MacMillan Center for International and Area Studies, Yale University, 2019-21 Economist, Chilean Antitrust Agency. Department of Collusion and Department of Mergers, 2011-13 Applied Economist, National Congress, Chile. Department of Advisors, Economic Group, 2010

### **EDUCATION**

New York University, New York City, USA

**Ph.D.** in Economics, 2013-19

Dissertation: "Essays in Industrial Organization"

Committee: Profs. Boyan Jovanovic, Ennio Stacchetti, Luis Cabral

M.Phil. in Applied Economics, 2013-17

# University of Chile, Santiago, Chile

**M.A.** in Economics, 2008-10

Thesis: "Optimal Investment and Entry in a Market with Dynamic Demand"

Committee: Prof. Aldo Gonzalez. Summa cum laude, Rank 1 student

**B.A.** in Economics, University of Chile, 2004-08

Summa cum laude, Rank 1 student

### RESEARCH AND TEACHING INTERESTS

Industrial Organization (theory and empirical), Statistical Learning, Competition Policy, Public Policy, Applied Microeconomic.

### RESEARCH EXPERIENCE

Research assistant:

Professor Boyan Jovanovic, New York University, 2016-19

Professor Jess Benhabib, New York University, 2018

Professor Charles Angellucci, Columbia University, 2016-17

Professor Aldo Gonzalez, University of Chile, 2009-11

### **TEACHING EXPERIENCE**

Lecturer:

Industrial Organization, Undergrad, University of Chile, 2010-12

**Teaching Assistant:** 

Industrial Organization, PhD. level, New York University. 2016-18

Advanced Micro Theory, Undergrad, New York University, 2017-19

International Economics Finance, Undergrad, New York University, 2017

Microeconomics, M.A., and PhD. Levels, University of Chile, 2009

# Teaching Assistant (Cont'):

Macroeconomics, M.A. and PhD. Levels, University of Chile, 2009
Operations Management, Undergrad, University of Chile, 2007-2008
Econometrics I, Undergrad, University of Chile, 2007
Introduction to Macroeconomics, Undergrad, University of Chile, 2006-08
Statistics, Undergrad, University of Chile, 2006

# **DIPLOMAS AND CERTIFICATES**

# Applied Data Science with Python, University of Michigan

Topics: Plotting, Machine Learning, Data Mining, Social Networks

# Data Science Pro Certificate, IBM

Topics: SQL and Python for Data Science, Data Analysis and Data Visualization, Machine Learning models

# **Deep Learning Specialization**, deeplearning.ai

Topics: Deep Learning, Convolutional Neural Networks, Artificial Neural Network, Tensorflow

#### Others:

Reinforcement Learning, University of Alberta Bayesian Methods for ML, National Research University

## HONORS, SCHOLARSHIPS, AND FELLOWSHIPS

Henry McCracken Fellowship, Ph.D. program, New York University, 2013-2018 National Master's Scholarship, CONICYT, Government of Chile, 2009-2010 Rank 1 (out of 24), M.A. in Economics, University of Chile, 2009-2010 Rank 1 (out of 204), B.A. in Economics, University of Chile, 2006-2009

### PROFESSIONAL ACTIVITIES

## **Conferences and Seminars:**

American Political Science Association, APSA, Annual Meeting, online, 2020 (x2)

Frontiers in International Business Conference, *The Digital Economy in a Multi-Polar World*, South Carolina, US, 2019

11th Conference on Digital Economics, Paris, France, 2019

Stern Industrial Organization Workshop, New York University, US, 2018

Micro Theory Lunch, Seminar Series, New York University, US, 2018

Chilean Economics Society Conference, Santiago, Chile, 2012

# **RESEARCH PAPERS**

### The evolution of platform use and platform revenue: The case of Facebook

I investigate the effects of direct and indirect network effects on diffusion and the innovator's profits. The main result is the innovation diffuses faster, users pay lower prices, and the platform earns higher profits when it faces a two-sided market. The platform wants to obtain a relevant number of adopters to earn profits from advertisers. Numerical solutions establish that the diffusion process is S-shaped when the utility of advertisers grows faster than the users. Lastly, the model is tested fitting Facebook's historical data. The model closely replicates the evolution of active users and the profits Facebook has earned due to advertising.

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## Pricing and Entry in an Environment with Network Effects and Switching Costs

This article develops a dynamic model of duopolistic price competition to assess the impact of network externalities and switching costs on prices and entry. Results suggest that firms with higher market shares set higher prices when market frictions are relevant: the large firm exploits the locked-in phenomenon. Market frictions also make the entry and growth of small firms harder: their expected demand and value function are lower even when they set competitive prices. The latter effects are stronger when the market matures. Lastly, the model is tested fitting prices in the Chilean mobile phone market before and after the implementation of the MNP and the elimination of the tariff differentiation between on-net and off-net calls.

# **Party Institutions and Social Welfare**

(with Alexander Kustov, Frances Rosenbluth, Ian Shapiro)

It is widely acknowledged that democracy affects economic growth and social welfare. The existing political economy literature, however, rarely disaggregates political institutions in ways that generate testable propositions about causal mechanisms. Our project seeks to advance this important strand of research by reconceptualizing both the independent and dependent variables. Specifically, we argue that stronger party systems, characterized by electoral competition between few disciplined parties, are more likely to implement effective government policies that generate inclusive economic growth than weaker systems with undisciplined or multiple coalition parties. We then show that government investments in early childhood education and care (ECEC) and family in-kind benefits are especially good at promoting long-term social welfare. To test our argument, we estimate the effect of party institutions on such future-oriented government spending by exploiting the timing of major changes to party discipline and fragmentation in an original dataset covering the last forty years in OECD countries. Overall, we show that political systems in which parties are large and disciplined are more likely to spend on effective public policies.

## The Rise of Safe Seats and the Decline of Party Discipline in the U.S. Congress

(with Alexander Kustov, Akhil Rajan, Frances Rosenbluth, Ian Shapiro)

What explains the growing dysfunction of the U.S. Congress? Many studies emphasize the role of polarization, but we argue instead that the historically weak party discipline contributes to poor legislative performance. We hypothesize that the rising number of safe House districts leads to the greater divergence of legislator preferences not just between but also within parties, which endogenously weakens party discipline alongside polarization. First, we provide comprehensive historical evidence on the share of safe seats in U.S. House districts and its increase over time using several alternative measures of electoral competitiveness. We then document how this trend coincides with the increase of government's dysfunction as indicated by the rising legislative gridlock, less frequent passage of majority's agendas, and the decreasing long-term-oriented spending. Second, we explore the potential mechanisms behind this relationship by comparing the preferences of legislators in more and less competitive districts. In line with our account, we show how representatives from safer seats—and especially those from the GOP—have more ideologically extreme and divergent preferences (due to a combination of more extreme electorates, challengers, and donors), which makes them less willing to support their party agenda.

#### **RESEARCH IN PROGRESS**

# **Loss Leading Strategy and Incentives to Collude**

This article examines the incentives loss-leading strategy generates on retailers and manufacturers to collude using a hub-and-spoke scheme. In the model, loss-leading arises due to the existence of a positive complementarity between demands. To allow the possibility of a hub-and-spoke type of agreement, the model assumes that the upstream firm and retailers negotiate the wholesale price via a Nash Bargaining process. Results suggest the manufacturer and both retailers collude to impose a minimum resale price when the degree of complementarity between demands is high and when the degree of inter-brand competition in the core product belongs to an intermediate value.

# **Empirical Model of Cooperation: An Application to the Telecom Industry**

(with Marc Ivaldi, Vicente Lagos)

This project aims at evaluating the effects of a network sharing agreement (NSA) signed by two incumbents in the mobile telecommunications industry in the Czech Republic to jointly deploy a nationwide 4G network. Using detailed data on average revenue per user (ARPU), average download speeds and market shares, we estimate a structural model of supply and demand to evaluate different competition settings and counterfactuals. In particular, different equilibriums are computed depending on whether it is assumed that the NSA parties choose prices and qualities jointly or independently, or whether they move simultaneously or sequentially.

#### REFERENCES

Professor Boyan Jovanovic (Main Advisor) Department of Economics, NYU 19 West 4th St., 6th Floor New York, NY, 10012-1119 +1 (212) 998-8953

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Professor Ennio Stacchetti (Main Advisor)
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Professor Luis Cabral Leonard N. Stern School of Business, NYU 44 West 4thSt. 7-70

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Director Felipe Irarrazabal Ph.
Director Competition Center
Universidad Adolfo Ibanez, Chile

Previous: Head of Chilean Antitrust Agency

felipeirarra@gmail.com

### **SKILLS**

Computational: Python, Matlab, Gauss, Stata, SQL, E-views, Office, Latex and SWP

Languages: Spanish (Native), English (Fluent)