Mathias Jimenez

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EDUCATION Stanford University

Ph.D. Candidate, Department of Economics (Expected June 2022)

Dissertation Title: "Essays in Monetary Theory and History"

Fields: Macroeconomics, Finance.

Universidad Torcuato Di Tella

Posgrado en Economia, 2015

Universidad de Montevideo

Licenciatura en Economia, 2013

Relevant Languages: Spanish (Native), English, Portuguese Skills Programming: R, SQL, Matlab, Languages, Markdown

Software: QGIS, Eviews, Excel, Github

Others: Statistical data analysis, causal inference, numerical optimization,

time-series econometrics, financial asset pricing, financial forecasting,

social network analysis, geographic information systems (GIS).

Professional Experience Internship at Adobe Inc.

Location: San Francisco, California.

Dates: October 2017 – July 2018 (10 months)

Job Description: Alongside a team at Stanford Economics and in partnership with the Adobe Digital Economy team, we leverage Adobe Analytics' real-time data coming from millions of e-commerce transactions to study firm pricing strategies across industries and online versus offline aggregate inflation dynamics.

Project Manager at Credifast

Location: Montevideo, Uruguay.

Dates: December 2012 – December 2013 (1 year)

Job Description: I led a team in this micro-credit company to develop a new internal software solution for daily front-end and back-end use. It involved managing a developer, leveraging data pipelines for customized client balance statements, automatizing the credit approval process, and computing product offers using statistical risk analysis and financial math.

Internship at Infopesca

Location: Montevideo, Uruguay.

Dates: March 2010 – June 2010 (4 months)

Job Description: I worked as a commercial analyst at Infopesca, a multilateral organization dedicated to producing reports on worldwide fishing markets and offering consultancy services for Latin American governments and private fishing industries. The job mainly consisted of working with a team to produce monthly market reports and maintain statistical information about worldwide fishing markets.

RESEARCH PROJECTS

The Extent of Financial Fragility in Un-Regulated Banking Systems: Evidence from Canada, 1871-1913

Abstract: This paper challenges the conventional view that unregulated banking systems are "robust-but-fragile", where banks provide valuable services during normal times but are also susceptible to a systemic run under financial stress. We use novel and granular data for Canada from 1871 to 1913, a period where there was no Central Bank, no currency monopoly, no deposit insurance, no explicit nor implicit bailout guarantees, no liquidity requirements, no mandatory public audits or inspections, and no public resolution authority. In this context, we show, among other things: i) The system evolved towards a handful of cooperative and well-diversified large banks, with no need for correspondent relationships. ii) Banks self-organized under an association that implemented centralized daily net clearing and settlement, liquidity management oversight, and rules for crises management and resolution. Moreover, the largest banks acted as ad-hoc central bankers by being lenders of last resort and making assume-andpurchase agreements with others at the brink of failure. iii) There were no system-wide runs even though Canada's principal trading and financial partners (the US and UK) did have several. However, the system experienced some localized financial distress, and several bank failures were accompanied by fraud from top executives to both shareholders and creditors. The paper suggests that more work needs to be done in modern quantitative banking models to disentangle purely decentralized mechanisms from policy-induced microstructure. It also underscores the complexities in modeling and doing counterfactuals on path-dependent systems.

Are Banks Technologically Obsolete? A New Monetarist Approach

Abstract: Given the current state of technology, which could allow agents to transfer directly Central Bank fiat money seamlessly and cheaply across the world, are we close to reaching a stage where private banks become "technologically obsolete"?. To provide some insights about this question, we build a monetary search model with several "imperfections" in the medium-of-exchange (MOE), such as asymmetric information in its value, imperfect supply elasticity, and transportation costs. Banks are "experts" in this MOE and have access to a payment infrastructure that can facilitate payments among non-banks by issuing transferable debt. Our model is specifically designed to account for historical evidence on banking origins, innovations, and also to speculate about its future. We first show what we call the "Two Worlds" result, which allows us to partition the parameter space into two sub-spaces that speak to the relevance of banking in the competitive equilibrium. Our main result suggests that we might not be far away from private banks becoming obsolete technologically speaking. Formally, suppose we start from a parameterized model consistent with being in a "Banking World". Then, even if the payment infrastructure endowed to banks is as good as it can get, agents in equilibrium strictly prefer to use only the MOE for payments when asymmetric information frictions and transportation costs vanish.

The Life-Cycle of Banking

(Short) Abstract: This paper is the first to document the evolution of a banking system from the appearance of its first bank to maturity in terms of stable turnover dynamics. Specifically, we rely on multiple new historical sources for Canada from 1817 (when the Bank of Montreal was chartered) to 1931 (when the industry stabilized to just five large banks). These novel sources allow us to show the life-cycle of the competitive structure, branching expansion, portfolio choices, capital structure, financial network, turnover dynamics, and their interaction with trade routes, population settlement, economic development, and international financial crises.

RESEARCH AND TEACHING

EXPERIENCE

Research Assistant for Pete Klenow

Summer 2017 - Summer 2018 Economic Growth

Lecturer at Universidad Torcuato Di Tella

Spring 2015 Introduction to Probability

Teaching Assistant at Stanford University

Spring	2020	Introduction to Financial Decision Making
Winter	2020	Games Developing Nations Play
Fall	2020	Finance, Corporations, and Society
Spring	2019	Economic Analysis III
Fall	2019	Economic Analysis I
Spring	2018	Economic Analysis III
Winter	2018	Economic Policy Seminar 101
Fall	2018	Economic Analysis III

Teaching Assistant at Universidad Torcuato Di Tella

Winter	2015	Statistical Inference ($Graduate$)
Fall	2015	Introduction to Probability (Graduate)

Teaching Assistant at Universidad de Montevideo

Spring	2013	TA Mathematical Economics II
Spring	2012	TA Mathematical Economics II
Winter	2012	TA Industrial Organization
Winter	2011	TA Statistics I
Spring	2011	TA Microeconomics I

Courses	2021	Blockchain Technologies, Berkeley University edX
	2021	Descentralized Finance (DeFi) Deep Dive, Duke University Coursera

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2021	Bitcoin and Cryptocurrency Technologies, Princeton University Coursera.
2019	Dringston Initiative Dringston University

2018 Princeton Initiative, Princeton University.

2018 Alternative Money University Workshop, CMFA.

 $\,$ J-PAL's Short Course on Experimental and Quasi-Experimental Methods.

 ${\it Academic Awards 2021-2022} \qquad {\it Adam Smith Fellowship, Institute for Humane Studies}.$

2020 – 2021 Thomas C. & Irene W. Graham Fellow, Institute for Humane Studies. 2018 Full Scholarship for Alternative Money University Workshop, CMFA.

2017 Selected for Princeton Initiative 2017.

2016 – 2021 Stanford University School of Humanities and Sciences Fellowship.

2015 Full Grant for J-PAL's Short Course on Experimental and Quasi-Experimental

Methods, Unverisdad Torcuato Di Tella.

Other Awards 2006 Bronze medal, 2006 International Basketball Championship,

Uruguayan juvenile basketball National Team.

2004 Silver medal, 2004 Uruguayan juvenile National League.