Mathias Jimenez

CONTACT address: 63 Abrams Court, Apt. 808 email: mathiasj@stanford.edu

Information zipcode: 94305. Stanford, CA phone: (+1)(650)2898895

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 (Job Market Paper)

Abstract: In this project I challenge the conventional view that un-regulated banking systems can be characterized as "robust-but-fragile" using novel and granular data from the uniquely un-regulated Canadian banking system from 1871 to 1913. Under this view, banks provide useful services as a financial intermediary during normal times, but under financial stress banks become susceptible to runs which negatively affect the real economy. Many banking models are built upon this, with some mechanism on top that amiplifies this fundamental fragility. Equilibria for these are usually constrained inefficient, which means a planner can increase welfare by implementing some combination of lender of last resort and macro-prudential policies. To challenge this view, I provide 40+ years of evidence from a banking system which had no Central Bank, no currency monopoly, no deposit insurance, no public resolution authority, no explicit nor implicit bail-out guarantees, no capital nor liquidity requirements, and no mandatory independent audits nor inspections, among others. In this context I show that: i) Despite being a commodity exporter economy who's principal trading and financial partners experienced several system-wide financial crises during the same period, Canada was resilient to all these and to domestic factors since it didn't experience any financial crises. ii) Banks self-organized under an association, implementing rules for crises management and resolution. Moreover, the largest banks acted as lenders of last resort, and made assume-and-purchase agreements with other banks at the brink of failure. iii) The main mechanisms proposed by quantitative banking models that amplify fundamental fragility didn't play a significant role for this un-regulated banking system, mainly due to the evolution of the industry towards the existence of only a handful of cooperative and well-diversified large banks.

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 combined can facilitate payments. Our model is particularly designed to be able to jointly account for historical evidence on banking origins, its development, 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 which speak to the relevance of banking in the competitive equilibrium. Our main result suggests that we might not be too far away from private banks being "obsolete". Formally, if we start in a "Banking World", even if the payment infrastructure endowed to banks is as good as it can get, when asymmetric information issues and transportation costs vanish, agents in equilibrium strictly prefer to use only the MOE for payments.

The Life-Cycle of Banking

(Short) Abstract: I document extensively for the first time the evolution of a banking industry from the appearance of its first bank till maturity in terms of number of banks, particularly for Canada from 1817 to 1929. For this I rely on multiple new historical sources that allow me to show this evolution in terms of competitive structure, branching expansion, financial network, turnover dynamics, and its 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.