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Curriculum Vitae Fall 2020

FERNANDO ARCE

Personal Data

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Citizenship: Bolivia F-1, Argentina

Major Fields of Concentration

Macroeconomics, International Economics

Education

Degree	Field	Institution	Year
PhD	Economics	University of Minnesota (expected)	2021
MA	Economics	University of Minnesota	2018
MSc	Economics for Development with Distinction	University of Oxford	2013
Dipl. Ing.	Statistics and Economics	ENSAE - Paris Tech	2013

Dissertation

Title: "Essays on International Borrowing"

Dissertation Advisors: Professor Timothy Kehoe and Professor Manuel Amador

Expected Completion: Summer 2021

References

Professor Timothy Kehoe	(612) 625-1589 (612) 204-5533 tkehoe@umn.edu	Department of Economics University of Minnesota 4-101 Hanson Hall
Professor Manuel Amador	(612) 624 4060	1925 Fourth Street South
Professor Manuel Amador	(612) 624-4060 (612) 204-5781 amador@umn.edu	Minneapolis, MN 55455
Dr. Javier Bianchi	(612) 204-5934	Research Department
	javier.i.bianchi@gmail.com	Federal Reserve Bank of Minneapolis
		90 Hennepin Avenue
Dr. Marco Bassetto	bassetto@nber.org	Minneapolis, MN 55401

Honors and Awards

2019 - 2020	Doctoral Dissertation Fellowship, University of Minnesota, Minneapolis, Minnesota
2018	Second Place, Third Year Paper Competition, Department of Economics, University of Minnesota,
	Minneapolis, Minnesota
2016	Distinguished Teaching Assistant, Department of Economics, University of Minnesota, Minneapolis,
	Minnesota
2015	Bert and Susan Hill Gross Fellowship, Department of Economics, University of Minnesota,
	Minneapolis, Minnesota
2013	Arthur Lewis Prize for Excellence in Development Economics, Department of Economics, University
	of Oxford, Oxfordshire, U.K
2012	Mobility Scholarship, ENSAE ParisTech, Malakoff, France
2008 - 2013	Excellence - Major Grant Program, French Ministry of Foreign Affairs, Paris, France
2008 - 2013	Excellence - Major Grant Program, Fichell Willistry of Foleign Affairs, Fairs, France

Teaching Experience

Summer 2017	Instructor, Department of Economics, University of Minnesota, Minneapolis, Minnesota. Instructor for
	International Trade, Writing Intensive.
2016 - 2017	Teaching Assistant, Department of Economics, University of Minnesota, Minneapolis, Minnesota. Led
	Fall 2020 - present recitations for advanced undergraduate Microeconomic Analysis, Advanced Topics
	in Economics- Uncertainty and Information, and for the Ph.D. level Microeconomic Theory sequence.
2012	Teaching Assistant, University Paris I Panthéon Sorbonne, Paris, France. Led recitations for
	Introduction to Financial Markets.

Research Experience

2019 - Present	Visiting Research Assistant, Research Department, Federal Reserve Bank of Minneapolis,
	Minneapolis, Minnesota
2017 - 2019	Research Assistant, Research Department, Federal Reserve Bank of Minneapolis, Minneapolis,
	Minnesota. Research Assistant for the Economic Analysis Group.
2013 - 2015	Research Fellow, Research Department, Inter-American Development Bank, Washington, DC.
	Research assistant for Andrew Powell.
Summer 2012	Research Assistant, Research Department, French Development Agency, Paris, France. Research
	Assistant for Bastien Bedossa and the Macroeconomic Analysis and Country Risk Unit.

Working Papers

Presentations

"A Macroprudential Theory of International Reserves," present at the Midwest Macroeconomics Meeting May 2019, Athens, GA; Society for Economic Dynamics Annual Meeting, June 2019, St. Louis, MO; IMF Brown Bag Seminar, IMF, Washington, DC, July 2019; Allied Social Science Association Annual Meeting, January 2020, San Diego, CA.

Computer Skills

Matlab, Fortran, Python, Stata, LaTex

Languages

Spanish (native), English (fluent), French (fluent)

Abstracts

"Private Over-Borrowing under Sovereign Risk," job market paper job market paper

This paper examines how systemic credit externalities in international private borrowing increase the severity and frequency of sovereign debt crisis. I propose an open economy model of international private debt subject to a collateral constraint and

[&]quot;Private Over-Borrowing under Sovereign Risk," job market paper, in progress

[&]quot;A Macroprudential Theory of International Reserves," with Javier Bianchi, and Julien Bengui

[&]quot;Drivers of Dedollarization in Bolivia: Evidence from Macroeconomic Aggregates and Microeconomic Data, in progress

[&]quot;Skill Premium, Trade, and Human Capital," with Camilo Alvarez and Samuel Bailey, in progress

international public debt issued without commitment. General equilibrium effects exacerbate collateral financial frictions in the private sector constraining its ability to rollover its debt. Mitigating this financial amplification provides an incentive for government bailouts financed by risky public liabilities which in turn can lead to a sovereign debt crisis. The article shows that without restrictions on private borrowing, private agents borrow more than a financial regulator who internalizes the general equilibrium effects of private borrowing. The regulator optimal allocations can be implemented with state contingent macroprudential taxes on private debt. Optimal macroprudential policies, not only reduce the occurrence and magnitude of financial crisis, but also the need for public bailouts, and the average sovereign spread paid on public debt. Using Spanish data from 1999 to 2015, I show that optimal macroprudential policies would have reduce the stock of private debt by 5% of GDP on average, and cut the annual probability of experiencing a financial crisis by 180 basis points. Finally, had macroprudential policies been in place in 2012 the interest rate spread on public bonds would have peaked 380 basis points below the observed level.

"A Macroprudential Theory of International Reserves," with Javier Bianchi, and Julien Bengui

This paper proposes a theory of foreign reserves as macroprudential policy. We study an open economy model of financial crises, in which pecuniary externalities lead to overborrowing, and show that by accumulating international reserves, the government can achieve the constrained-efficient allocation. The optimal reserve accumulation policy leans against the wind and significantly reduces the exposure to financial crises. The theory is consistent with the joint dynamics of private and official capital flows, both over time and in the cross section, and can quantitatively account for the recent upward trend in international reserves.

"Skill Premium, Trade, and Human Capital," with Camilo Alvarez, and Sam Bailey

Our paper seeks to explain why the college wage premium first rises and then falls after emerging countries liberalize trade. We study a two-sector trade model with heterogeneous firms and human capital accumulation. From the firms' side, our model has two sectors: the first, a perfectly competitive sector, the second, monopolistically competitive sector selling differentiated goods. The monopolistically competitive sector is more skill intensive. In the model, households are grouped in a family structure where they are endowed with two types of labor, low-skilled and high-skilled. Households can choose to invest in human capital, in which case they pay an endogenous tuition cost and forgo wages earned from working in a low-skilled occupation for that period. When a country liberalizes trade the homogeneous sector is perfectly traded and therefore maintains its autarky size. At the same time, trade expands the market for the monopolistically competitive sector, which has transitory effects on the skill premium. Using Mexican data starting in the late 1980s, we show that the model can quantitatively account for the evolution of the skill premium.

"Drivers of Dedollarization in Bolivia: Evidence from Macroeconomic Aggregates and Microeconomic Data"

The paper assesses the validity of the portfolio model developed by Ize and Levy-Yeyati (2003) and of other macroeconomic factors to explain the process of de-dollarization of savings in Bolivia during the last two decades. The identification strategy is derived from a specification of the portfolio model where the risk premium in the uncovered interested rate parity condition is a function of the fiscal deficit and the level of international reserves relative to the deposits in the banking system. A Vector Error Correction Model (VECM) is used on monthly data of aggregated savings in foreign currency and macroeconomic indicators from 2000 to 2012. The interactions between the macro variables and the level of savings are also studied on a dynamic panel of savers from a Bolivian financial institution from 2004 to 2012, using a first difference Generalized Method of Moments model. Although the macroeconomic model does not fit the data perfectly, it does produce some significant results. The minimum variance portfolio hypothesis is partially valid in this context, which means that a decrease in the correlation between the inflation rate and the nominal depreciation rate relative to the variance of the latter fosters de-dollarization. At the same time, we find evidence that expected nominal appreciations, improvements in the fiscal position and accumulation of reserves are associated with less dollarization. The microeconomic panel fails to detect significant interaction effects between these variables and the level of savings. However, it allows us to see that dollarization is less persistent than at the macro level and that de-dollarization has been more pronounced for individuals with higher savings.