

## Statement of research

I work on household finance, financial inclusion, and consumer protection. However, I also have broader interests in applied microeconomics. In terms of methods, I am a pragmatist. I have 12 published or ongoing randomized controlled trials, 13 published or ongoing papers observational reduced form methods, and 3 using structural econometric methods. Although geographically my research is concentrated in Mexico, this has happened because of convenience. I feel perfectly capable of doing research in other countries.

I will organize my research by field. Even when I will refer to myself in the description below, this work has been done with coauthors listed in my CV. I will name some of the coauthors for papers in the making.

### Credit markets and household finance

I have five published papers in household finance and working on three more. The first was "*Borrowing on the Wrong Credit Card? Evidence from Mexico*" 2017 at the AER. In this paper we document that borrowers borrow on their most expensive cards for extensive periods of time even when they can feasibly borrow on the cheaper ones they already have. This paper has given rise to a literature that studies consumers biases in the use of credit cards, some of it published in top 5 journals. I myself have papers exploring whether this lack of arbitrage is due to poor information. Together with Mexico's banking regulator we designed large field experiments to improve disclosure requirements. "*Are Information Disclosures Effective? Evidence from the Credit Card market*", 2017 AEA Policy Journal is one such paper. It finds that even very aggressive consumer disclosures had negligible behaviors in credit card markets. This disciplines the large expectations policy makers have placed on consumer disclosures across many markets and suggests that more is needed to help consumers. This research led me to advise Mexico's central bank on consumer protection issues. I have further working paper on behavioral issues in pawnshop borrowing: In "*The limits of self-commitment and private paternalism*", we study pawnshop lending, and show that borrowers who would benefit more from commitment are the ones choosing less of it.

I also have also studied borrower search behavior in financial markets, and particularly how it could lead to default externalities. Bizer and DiMarzo 1992 JPE showed that sequential banking ---or non-exclusive contracting--- can give rise to inefficient market equilibria. To our understanding there was no empirical research showing the prevalence and empirical implications of sequential banking. In "*Sequential Banking Externalities*", accepted at the AEA Policy Journal 2021 we show that this behavior is prevalent and causes large increases in default risk market wide.

In "*Digital Financial Services Go a Long Way: Transaction Costs and Financial Inclusion*", AER P&P we show that transaction cost and distance to branches lower household savings. We show how digital technologies ---even older ones like the debit card--- can increase savings. And in "*How Debit Cards Enable the Poor to Save More*", 2021 Journal of Finance, we show that low trust is a major barrier to savings by lower income households. Many households believe that financial institutions may steal their money, directly or through hidden fees. Giving them a cheap way to monitor the account dramatically increased their savings in formal bank accounts and also total savings. I believe this is the first research estimating how low trust depresses savings, and how ATM cards increase savings by allowing households a cheap way to monitor their account.

"*Sequential Banking Externalities*" also studies financial inclusion. We directly study a case where a large bank relaxed the credit score approval threshold to pursue extra-marginal applicants and documented that it was not successful. But we study financial inclusion more thoroughly in "*Expanding Financial Access Via Credit Cards*" (working paper). In particular using a large RCT we find that the extent financial inclusion is not so much limited

by borrower moral hazard but by exogenous shocks like unemployment, which severely limit the profitability of many low-income new-to-banking borrowers. Finally, in *"The Long-Term Effects of Temporary Incentives to Save"* (working paper) we show that lotteries can be used to increase savings. Lotteries have been used as policy as incentives to save or to vaccinate, but there is little research around them still. Two other working papers are being done with Pascaline Dupas, and with Jonathan Zinman and Jose Ignacio Cuesta. In the first case we are measuring the causal effects of credit on formal employment and investment for medium sized firms and their suppliers; in the second case we are researching optimal ways to refinance loans in default.

### **Corruption and civic participation**

We have brokered a research agreement between ITAM and the Mexican Electoral Authority (INE) to use their data for research, and investigate issues related to corruption, democracy, or civic participation. We have two published papers in this domain. The first, *"The Quality of Votes Tallies: Causes and Consequences"* APSR 2020 studies the issue of human error in vote counting, and how politicians have used them (successfully) to decrease trust in the electoral authority. In *"Voting with One's Neighbors: Evidence from Migration within Mexico"* JPubE 2021 we use the universe of Mexican voters and their migration patterns to show that voting is contagious, in the sense that citizens imitate voting behaviors from neighbors.

Motivated by the speedy decrease in preference for democracy worldwide and in Latin America, along with the increase in the perception of corruption, I am engaged in a project that scrapped the tweeter news feed for the 4 major news channels in 18 Latin American countries of the last 10 years, looking for corruption scandals. By merging them with survey data from Latinobarometro, we show in an event study framework that corruption scandals lower preference for democracy. We verify this result with an RCT in 60 ethnically diverse municipalities in Mexico, using a survey experiment and revealed preference behavior measures.

I am working on three other papers around democracy and polarization. First, we are embarking in an RCT in civic education for young adults *"Protecting Democracy: Promoting Civic Values at Scale"*. Second, we have finished an RCT in online communication testing whether equality in collaboration ---one of Allport's "Contact Theory" conditions to decrease polarization-- is necessary. Third, I am also working on the question of whether decreased preference for democracy (measured in surveys) actually correlates with lower voting and volunteering to be a poll booth worker using administrative INE data and more than 70,000 surveys we implemented.

### **Courts and access to justice**

We have been working for 5 years on a series of projects around labor courts. In spite of the pervasiveness of anecdotes about corruption and inefficiency in courts, there is a paucity of field experiment research. While many papers studying access to justice in developing countries have focused on the creation of new courts, we focus on how to improve existing ones and on what is causing court malfunction. In *"Information and Bargaining through Agents: Experimental Evidence from Mexico's Labor Courts"* (R&R at REstud), we show that parties are greatly misinformed and overconfident about winning, and that this seems to be interfering with bargaining. We show that providing personalized (machine learning) predictions leads to better outcomes, but only when the worker receives the information directly, not through their lawyers, suggesting lawyer moral hazard. This research was influential enough to be included in a major labor law reform in Mexico, and to inform the USMCA trade deal, with coauthor Joyce Sadka testifying in the US congress about it. Led by these results, in a follow up paper we are measuring lawyer quality using machine learning methods. We are creating 2-sided platform to

help workers and good lawyers match, and to reduce adverse selection and moral hazard. We will run 3 RCTs from this project and we have already obtained the grant to do it.

With Fred Finan and Ernesto Dal Bo, we have started the research project "*Fighting corruption with competition*" that studies how competition among bureaucrats can be used to fight corruption. To start a lawsuit, parties have to be notified by a court employee, and there is endemic corruption in this process. In our surveys, more than 70% of surveyed lawyers claim that bribing the court's notifier is necessary. The problem is magnified by notifiers being monopolists over a geographical area where only they have notification rights. We are working on an RCT that compares the monopoly notifier status-quo with a rotation scheme that introduces competition across notifiers.

## Health

I have two health-related papers, and I am working on two more. The first paper is about sin food taxes. "*The Effectiveness of Sin Food Taxes: Evidence from Mexico*" 2021 *Journal of Health Economics*, studies a large national level tax on sugary drinks and high caloric foods. We show that substitution towards untaxed foods has rendered the tax ineffective to decrease calories purchased. In a follow up paper "*Internalities and the effectiveness of taxing sugar-sweetened beverages*", (working paper), we are studying longer run effects of these taxes. Using a structural model that incorporates present bias and habit formation, we show that sugar taxes have 50% larger effects in the longer run and find evidence supporting habit formation and present bias in sugary drinks consumption. Documenting behavioral bias provides a rationale for government involvement, and to our understanding there are few papers that do this for sugary drinks. Although taxes can be part of the solution for rising obesity, I am interested in complementary policies as well.

I am currently working on two papers about policies to help diabetics improve their health. The first paper "*The Impact of a Private Supplement to Public Health Care: The Mexico Diabetes Experiment*", has been finished and submitted to the AER. The paper conducts an RCT to complement public provision of health care with private care. It uses what we believe to be an innovation in RCT methodology to document large decreases on Hemoglobin A1C. We show further that the benefit of the private care seems to come from more quantity of care rather than better quality. We use large datasets from the government's Social Insurance Institute to document large positive fiscal externalities of the private complement. Even when we document large benefits of the private supplement, a large fraction of patients abandon treatment. This is true of many treatments for disease and many countries. We are in the middle of a large field experiment that asks about why this is, and if patients who abandon are indeed the ones less likely to benefit from treatment. Finally, in "*Should the Government Sell You Goods? Evidence from the Milk Market in Mexico*" (working paper), we estimate a structural equilibrium model and show that government direct provision of milk can both increase milk consumption and increase consumer welfare by mitigating market power of private suppliers.

## Other papers

I also have other papers about how to help small and medium sized firms. One is on procurement, "*Comparing Open and Sealed Bid Auctions: Evidence from Timber Auctions*" QJE 2011, and the other is on reducing regulatory burdens "*Entry Regulation and Business Start-Ups: Evidence from Mexico*" 2011 JPubE.