GUSTAVO DE SOUZA

gmsouza@uchicago.edu
www.gustavodesouza.net

Office Contact Information

Institute for International Economic Studies
Stockholm University
SE-106 91 Stockholm, Sweden

Personal Information

date of birth: 03/22/1989
sex: male
citizenship: Brazilian

Education

Ph.D. in Economic, The University of Chicago, 2015 to 2021
Thesis Title: "The Labor Market Consequences of Appropriate Technology"
Committee: Greg Kaplan (Chair), Robert Shimer, Mikhail Golosov, Rodrigo Adao

M.A. in Economics, Getulio Vargas Foundation (EPGE/FGV), 2012 - 2014

B.A. in Economics, Catholic University of Santos, 2008 - 2011

Academic Positions

Assar Lindbeck Fellow, Institute for International Economic Studies, 2021-2022
Research Economist, Federal Reserve Bank of Chicago, 2022-

Refereeing

Journal of Political Economy, Review of Economic Dynamics, AEJ: Macro

Seminars and Conferences

2021: Minneapolis FED Junior Scholar Conference, Nova SBE, CEMFI, HKU, University of Toronto, National University of Singapore, PUC-RJ, Insper, Harvard, Clemson, CREI, EIEF, Yale, DISES - CSEF, Brown University, Richmond FED, Federal Reserve Board, Chicago FED, Dallas FED, NY FED, IIES, Queen Mary University

Teaching Experience

The University of Chicago:
Spring, 2019, Empirical Topics in Social Insurance (PhD), TA for professor Manasi Deshpande
Spring, 2019, Inequality and the Social Safety Net: Theory, Empirics, and Policies (BA), TA for professor Manasi Deshpande
Winter and Spring, 2018, Introduction to Public Finance (BA), TA for professor Mikhail Golosov

Spring, 2017, Public Sector Economics (BA), The University of Chicago, TA for professor Casey Mulligan

Spring, 2016, Introduction to Public Finance (BA), TA for professor Casey Mulligan

Getúlio Vargas Foundation:

Summer, 2013, Macroecononomic Theory II (PhD) , TA for professor Tiago Berriel

Spring, 2013, Statistics I (PhD), TA for professor Caio Ibsen

Spring, 2013, Macroeconomic Theory I (PhD), TA for professor Rubens Penha Cysnes

Research Experience and Other Employment

2016 to 2017, The University of Chicago, Research Assistance to Prof. Greg Kaplan

2014 to 2015, Institute of Applied Economic Research, Research Associate

2013 to 2014, Getulio Vargas Foundation, Research Assistance to Tiago Berriel

Honors, Scholarships and Fellowships

2019, Research Grant, Becker Friedman Institute

2015 to Present Doctoral Fellowship, Department of Economics, University of Chicago

2015 XX Brazilian Treasury Prize

2013 'A' student Fellowship for Outstanding Academic Performance, FAPERJ

2012 Master Degree Fellowship, CAPES

2010-2011 Introduction to Scientific Research Fellowship

Job Market Paper

"The Labor Market Consequences of Appropriate Technology"

Abstract: Developing countries rely on technology created by developed countries. This paper shows using model and data that the dependence of developing countries on technology made by developed countries increase wage inequality but leads to higher production in developing countries. I study a Brazilian innovation program that taxed the leasing of international technology to subsidize innovation. Exploiting heterogeneous exposure, I show that the innovation program led firms to replace technology licensed from developed countries by in-house innovations. The replacement of international technology by national technology led to a decline in employment and in the share of high-skilled workers in the firm. I explain these facts with a model of directed technological change and cross-country technology transactions. Firms in a developing country can either innovate or lease technology from a developed country. These two technologies endogenously differ in productivity and skill bias due to factor supply differences in the two countries. I show that the difference in skill bias and productivity can be identified with closed-form solutions by the effect of the innovation program on the firm's expenditure share and employment. Calibrating the model to reproduce these elasticities, I find that increasing the share of firms patenting in Brazil by 1 p.p. decreases the skilled wage premium by 0.02% and production by 0.2%.

Working Papers

"The Employment Consequences of Anti-Dumping Policies: Lessons from Brazil" (with Haishi Li)

Abstract: Tariffs are often advocated as a tool to mitigate the negative employment effects of international trade. To evaluate this claim I compile data on all anti-dumping (AD) investigations in Brazil, matching it to firm-level administrative employment information. By difference-in-differences, I estimate the effect of AD tariffs on trade, the national supplier and sectors linked to it. First, imports significantly decrease without a corresponding increase in trade from other countries or products. Second, although the protected sector increases employment, I do not find evidence that the firms filing the complaints do so. Third, the majority of employment adjustment happens in other sectors. Downstream firms decrease employment by more than the employment gain of the national producer while upstream ones dramatically increase it. These results highlight the importance of input-output linkage in determining the impact of tariffs on employment.

"On the Political Determinants of Redistribution"

Abstract: Redistributive policies, such as welfare transfers and universal health care, are commonly the center of a heated political debate. The US government spend on this category 20% of GDP, less than the world average (22.4%) and the EU (28.1%). Some argue that institutional factors explain the lower redistribution in US. Campaign contribution by the rich, lower voter turnout and/or religious concerns, could induce low income voters to be miss represented in the political process. Another possibility is that a large share of those individuals are averse to redistribution for ideological reasons. This paper describes a structural method to identify different channels affecting the social choice of redistribution and estimates the counter-factual effect of institutional reforms. The method relies on a dynamic heterogeneous agents model with endogenous fiscal policy choice. The model is estimated using survey data on redistribution opinion and vote decision. I found that voters who could benefit from redistribution, support and vote for low transfers motivated by ideological reasons. Due to that, increasing voter turnout would actually reduce redistribution. Partisan competition and voter turnout play a crucial role to determine redistribution while campaign expenditure has a negligible effect.

"Unemployment Insurance Requirements, Labor Market and Minimum Wage" with Andre Victor Doherty Luduvice

Abstract: In the US, unemployed workers must satisfy two requirements to receive the unemployment insurance (UI): a tenure requirement, that stipulates the minimum qualifying work spell, and a monetary requirement that determines a past minimum weekly wage. This paper develops a heterogeneous agents model with history-dependent UI benefits built on stylized facts of the US economy to quantitatively obtain an optimal UI program design. We first conduct an empirical analysis using the discontinuity of UI rules at state borders and find that a tenure requirement induces a longer employment spell while the monetary requirement decreases the number of employers and has a stronger effect on UI applications. We use our quantitative model to rationalize these results. When the tenure requirement is long, workers tend to accept more low paying jobs to become eligible sooner to UI and protect themselves from risk. The monetary requirement has the opposite effect. As such jobs become non-eligible to the UI, they are then less attractive to workers. We

show that, due to its effect of mitigating moral hazard, the monetary requirement can generate higher levels of welfare than an increase of length of the tenure requirement.

"Robots, Tools, and Jobs: Evidence from Brazilian Labor Markets"

Abstract: We quantify the effects of changes in the prices of labor-saving and labor-augmenting machinery on the labor market. Using a task-based production model we show that, while lower prices of labor-augmenting machines unambiguously lead to higher wages and employment, changes in the price of labor-saving technologies have an ambiguous effect. Empirically, we use Brazilian administrative data on capital imports to classify machines into labor-saving and labor-augmenting with textual analysis. We leverage exogenous variation in machine prices due to import tariffs in Brazil to show that the adoption of labor-saving technology negatively impacts wages and employment; however, it tends to be followed by an increase in the use of labor-augmenting machines by other firms, which have the opposite effect. As a result, a 1% reduction on tariffs on capital imports leads to an increase in employment of 0.2%. Our conclusions show the importance of taking into account the role of labor-augmenting technology on the labor market.

Research in Progress

"Government Brain Drain"

Abstract: Governments around the world, especially in developing countries, are well known for providing generous benefits and paying extravagant wages. As a consequence, even high wage private-sector workers could be tempted by a public servant position. Following this intuition, I show using a Roy model that private-sector earnings could go down as a consequence of increases in public labor demand. Due to the high public wage, the private sector loses high education and high ability workers. Causing a shortage of talents in the private sector and reducing private aggregate labor demand. Using data from Brazil and RDD, I show that there is indeed a high degree of positive sorting in the Brazilian municipal public sector. As predicted by the theory when that happens, wages and economic activity decreases with increases in public sector labor demand.

"The Fiscal Consequences of Active Labour Market Policies: the Case of Quota for Disabled Workers"

Abstract: Expenditure with disability insurance has been on the rise in all developed countries. To reduce disability insurance expenditure, the Brazilian government mandated firms with more than 100 workers to have from 2% to 5% of their labor force filled by disabled workers. In this paper I ask: What is the effect of disabled workers' quota on the government's revenue and disabled insurance expenditure? I start with a model of labor force participation with disabled workers. Disabled workers have higher labor supply disutility, lower productivity, and receive disability insurance if not working. I show on the model that the relative productivity of disabled workers can be identified by the effect of the quota on firms while the disutility of disabled workers can be identified by the aggregate effect of the quota on wages. I use administrative data on inspections of the disabled quota to identify how hiring disabled workers affected firms and estimate the productivity of disabled workers. As a response to the inspection, firms reduce their growth rate and wages, even of non-disabled employees. Using regional variation to the disability quota, I

also find that the quota increased the wage of disabled workers by 4.1% and labor force participation by 16.5%. From these results, the fiscal efficiency of this policy is cast in doubt. It reduced costs with disability insurance but also reduced revenue from payroll taxes.

"Median Voter, Redistribution and Debt: Learning from the Weather"

Abstract: How inequality affects redistribution and debt? In this paper, I use the weather condition at the election day as an instrument to show that increases in the relative income of the median voter lead to an increase in expenditure and debt. If rains on the election day, the turnout of low-income voters decreases while the turnout of high-income voters increases, shifting up the income of the median voter. Using the weather condition as an instrument, I show that an increase in the income of the median voter leads to no significant change in taxes or redistribution but is followed by an increase in expenditure, debt, and the interest rate paid by state governments. This increased expenditure is concentrated on safety and the police. I explain these results with a model of endogenous fiscal policy choice, wealth inequality, and complementarity of private and public consumption. I show that high-income individuals are more likely to support debt-financed increases in public goods because of its complementarity with private consumption and because they benefit from high-interest rates.