MIT Economics

JOHN STURM

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DOCTORAL STUDIES

Massachusetts Institute of Technology (MIT)
PhD, Economics, Expected completion June 2023
DISSERTATION: *"Essays on Optimal Policy Design"*

DISSERTATION COMMITTEE AND REFERENCES

Professor Daron Acemoglu
MIT Department of Economics
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Professor Iván Werning
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Professor Arnaud Costinot
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PRIOR EDUCATION

University of Cambridge — 2016
MPhil, Economics
Distinction

Harvard University — 2015
A.B., Physics and Mathematics
Summa Cum Laude

CITIZENSHIP USA

GENDER Male (he/him/his)

LANGUAGES English (native), French (conversant)

FIELDS Macroeconomics, Public Finance, Trade

TEACHING EXPERIENCE	Math Camp (graduate) Sole Instructor	2019-2021
	International Trade II (graduate, MIT course 14.582) Teaching Assistant to Professors David Atkin, Arnaud Costinot, and Dave Donaldson	2020, 2022
RELEVANT POSITIONS	Research Assistant to Dave Donaldson and Arnaud Costinot	2021
	Research Assistant to Daron Acemoglu	2022
	Research Assistant to Arnaud Costinot and Ivan Werning	2019
	Research Assistant to Ben Golub	2018
	Research Assistant to Joseph Stiglitz (pre-doctoral)	2016-2017
FELLOWSHIPS, HONORS, AND AWARDS	Global Priorities Fellowship, Forethought Foundation	2022
	Palm Fund Fellowship, MIT Economics Department	2017-2019
	Paul Williams Fellowship (full scholarship, Cambridge Univ.)	2015-2016
	Sanderson Prize (best academic record, Harvard physics majors)	2015
PROFESSIONAL ACTIVITIES	**Referee:** *American Economic Review*, *American Economic Review: Insights*	
	Presentations:	
	[Future] Annual Meeting of the American Economic Association	2023
	[Future] National Tax Association Annual Conference	2022
	"Smart Sanctions" Online Workshop	2022
	European Winter Meeting of the Econometric Society	2021
	Mentorship:	
	Application Assistance and Mentorship Program	2020-2022

RESEARCH PAPERS

"How to Fix a Coordination Failure: A 'Super-Pigouvian' Approach" (Job Market Paper)

A central concern in industrial policy discussions is that sector-specific external economies of scale may create multiple equilibria—and therefore the potential for coordination failure. Pigouvian policies that address market failures on the margin do not remove the risk of mis-coordination globally. I propose a new "super-Pigouvian" (SP) policy that retains the decentralized spirit of Pigouvian policy—regulating prices rather than quantities—but also prevents coordination failure. The main idea behind SP is to subsidize market behavior, both on and off the equilibrium path, according to the population's willingness to pay for the welfare gains that those behaviors generate (a) directly, like Pigou, and also (b) indirectly, by affecting other households' choices. After demonstrating SP's welfare properties theoretically, I quantify them in a dynamic model of structural transformation calibrated to South Korea's heavy and chemical industry drive in the 1970s. SP modestly improves welfare compared to the worst equilibrium under Pigouvian policy.

"A Theory of Economic Sanctions as Terms-of-Trade Manipulation"

How can a country design economic sanctions to maximize their economic cost to the sanctioned country at the lowest cost to the sanctioner? I consider this problem from the perspective of international trade and draw a close connection between trade restrictions as economic sanctions and trade restrictions as terms-of-trade manipulation. This connection has several useful implications for sanction design: Small sanctions increase welfare in the sanctioning country. Sanctions target the same goods as terms-of-trade manipulation. Sanctions ignore elasticities of demand and supply in the sanctioning country. Sanctions treat imports and exports asymmetrically.

"Income Taxation with Elasticity Heterogeneity"
(with André Sztutman)

We provide a new efficiency test for non-linear income tax schedules when households have heterogeneous elasticities of taxable income (ETIs). The test fails when ETIs vary enough among households with the same income. In such cases, the planner can reform taxes to sort households into different parts of the income distribution based on their elasticities and—at the same time—exploit this separation using higher marginal taxes on the less elastic. We evaluate our test empirically using novel estimates of the variance of ETI by income bracket. The test fails, implying that a "free lunch" is available through tax reform.

"Fiscal Policy in a Networked Economy"
(with Joel Flynn and Christina Patterson) *NBER Working Paper*

Advanced economies feature complicated networks that connect households, firms, and regions. How do these structures affect the impact of fiscal policy and its optimal targeting? In a model with rich heterogeneity in goods, households, sectors, and regions, we derive estimable formulas for the effects of fiscal policies on output—i.e. fiscal multipliers. We then estimate this model using detailed U.S. data. We find that multipliers vary substantially across policies, and the detailed structure of economic interconnections shapes their distributional impacts. However, aggregate multipliers are nearly unaffected by these networks, so maximally expansionary fiscal policy simply targets households' MPCs.

RESEARCH IN PROGRESS

"The Non-Substitution Theorem: A Modern Treatment"
available upon request

When do factor prices determine goods prices and/or input-output structure? I provide a modern treatment of the non-substitution theorem first introduced by Samuelson (1949) and Georgescu-Roegen (1951). A focus on price uniqueness rather than production methods allows me to weaken assumptions in the existing literature. All of my results extend to models with multiple factors and imperfect competition with constant markups.

“Changing Taxes for Changing Times”
(with André Sztutman)

How should income taxes respond to changes in technology or labor markets? Starting from a benchmark where changes in the income distribution do not affect the fiscal cost of redistribution, we emphasize three key factors: First, increased income inequality decreases the cost of redistribution. Second, uniform income growth decreases the cost of redistribution when higher income households have higher labor supply elasticities. Third, uniform income growth increases (decreases) the cost of redistribution at high (low) incomes when elasticities vary within income levels. A preliminary calibration to the U.S. between 1982 and 2008 suggests the third effect has dominated, making redistribution more expensive.

POLICY WRITING

“The Simple Economics of Trade Sanctions on Russia: A Policymaker’s Guide”
What economic tradeoffs should inform the design of trade sanctions? This paper—intended as a guide for policymakers with some background in economics—uses supply and demand diagrams to illustrate seven simple lessons. [Press: VoxEU]

“The Simple Economics of Optimal Sanctions: The Case of EU-Russia Energy Trade” (with Kai Menzel and Jan Schmitz)
We study trade sanctions in a simple framework that accounts for an EU-Russian import tariff's effects on both countries’ terms of trade with the rest of the world. In this context, we provide a test for when tariffs on Russian energy imports can simultaneously damage the Russian economy and increase EU welfare.