

MOHAMAD ADHAMI

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Education

Stanford University

Ph.D. in Economics, 2020-2026 (expected)

Committee: Pete Klenow (advisor), Chad Jones (advisor), Chris Tonetti, Nick Bloom

American University of Beirut

B.A. in Economics & B.S. in Mathematics, High Distinction, 2016-2020

Research Field

Macroeconomics

Job Market Paper

Quantifying Knowledge Spillovers Using Firm and Product Dynamics

I develop a new growth model and use it to quantify knowledge spillovers without relying on patents. It features innovating multiproduct firms and endogenous product exit, with spillovers as the source of improvements in the entry distribution from which both entering and incumbent firms draw the quality of their new products. In equilibrium, product exit exhibits negative selection and is preceded by a gradual decline in market share, consistent with facts I document using barcode-level data. These dynamics of product exit are informative about spillovers: by accelerating improvements across successive generations of new products, stronger spillovers increase the rate at which incumbent products lose market share and exit. Quantifying the model with firm-level data covering the universe of U.S. private nonfarm employer businesses, I infer sizable spillovers, driving an 11 to 28 percentage point wedge between social and private rates of return to innovation under *laissez-faire*.

Working Papers

Variable Markups, Incomplete Pass-Throughs, and R&D Misallocation (with Jean Félix Brouillette and Emma Rockall)

Motivated by growing evidence on variable markups and positive yet incomplete cost pass-through, we develop a growth model featuring monopolistically competitive firms facing non-isoelastic demand and making forward looking investments in R&D to improve their process efficiency. By featuring a lower elasticity of demand at lower prices, the model endogenously generates higher markups for more productive firms and incomplete pass-through of cost savings. A novel implication is that such variable markups lead to R&D misallocation: by acting as a size-dependent wedge, higher markups disproportionately shrink the scale and depress the private R&D returns of the most productive firms. We quantify the model using French firm-level data and find this R&D misallocation slows aggregate growth by 0.9 percentage points. This effect is driven entirely by markup dispersion, not the average level of markups.

Population and Welfare: Measuring Growth when Life is Worth Living (with Mark Bills, Chad Jones, and Pete Klenow) *Conditionally Accepted, AEJ: Macroeconomics*

Economic growth is typically measured in per capita terms. A long tradition in philosophy, however, suggests that social welfare may depend on the number of people as well. To illustrate how much this matters quantitatively, we decompose welfare growth—measured in consumption-equivalent (CE) units — into contributions from rising population and rising per capita consumption. Because of diminishing marginal utility from consumption, population growth is scaled up by a value-of-life factor that empirically averages nearly 3 across countries since 1960. Population increases are therefore a major contributor to growth if one takes a total utilitarian perspective.

Work in Progress

Carbon Neutral Growth: Evidence from French Manufacturing (with Thibault Ingrand)

This paper studies decarbonization in the French manufacturing sector, where energy-related emissions have fallen sharply despite continued output growth. Using establishment-level data on energy consumption, we decompose this trend. We find declining carbon intensity of energy (emissions/energy) and falling energy intensity (energy/output) account for 40% and 60% of the trend, respectively. The reduction in carbon intensity is primarily due to electrification. We find this electrification is driven almost entirely by within-establishment changes, with little role for reallocation across producers. In contrast, for the decline in energy intensity, both reallocation and within-firm improvements are important: reallocation of activity across industries accounts for 20%

of the gains; within industries, the vast majority of the decline (85% of the within-industry effect) stems from incumbent firms improving their own efficiency.

Teaching	Econ 211 (first year PhD Macro core), Stanford University, TA for Prof Pete Klenow, 2023-2025 Outstanding Teaching Assistant Award, Stanford Economics Department, 2025
Fellowships & Awards	Econ JM Best Paper Award, European Economic Association and Unicredit Foundation, 2025 Leonard W. Ely and Shirley R. Ely Graduate Student Fellowship, SIEPR, 2025-2026 Patricia Liu McKenna and Kenneth McKenna Graduate Fellowship, SIEPR, 2023-2024 Muhanna Foundation in Mathematics Award of Excellence, American University of Beirut, 2020 Mona Chemali Khalaf Award, American University of Beirut, 2020 Philip K. Hitti Prize, American University of Beirut, 2019 Dr. Basil Fuleihan Excellence Award in Economics, American University of Beirut, 2019 Fund Challenge for MCD countries, International Monetary Fund, 2019 Remy Rubeiz Award Economics, American University of Beirut, 2018 Full-ride scholarship, American University of Beirut, 2016 Bourse Excellence Major, Agence pour l'enseignement français à l'étranger, 2016
Research Positions	Research Assistant for Profs Pete Klenow and Chad Jones, Stanford University, 2022-2025 Research Assistant for Prof Luigi Bocola, Stanford University, 2023
Referee Service	American Economic Journal: Macroeconomics, American Economic Review, American Economic Review: Insights, Econometrica, Journal of Political Economy: Macroeconomics, Quarterly Journal of Economics, Review of Economic Dynamics
Seminars	2025-2026: University of Toronto Rotman School of Management (Strategic Management); Toulouse School of Economics (TSE); Einaudi Institute for Economics and Finance (EIEF); Institute for International Economic Studies (IIES); Monash University; Johns Hopkins University; University of Chicago; University of North Carolina at Chapel Hill.
Conference Presentations	Minneapolis Federal Reserve Junior Scholar Conference Chicago Federal Reserve Rookie Conference
Data Clearances	U.S. Census Bureau Special Sworn Status CASD (French Administrative datasets)
Other Professional Activities	Mentor, Spelman-Sloan-Stanford Mentorship Program, 2023-2025 NBER Innovation Research Bootcamp, 2023 Member of Graduate Student Council, Stanford Economics Department, 2022-2024 Stanford Growth Reading Group, 2021-2026
Research Grants	Graduate Research Opportunity (\$6,000), School of Humanities and Sciences, 2023-2024
Other	Languages: Arabic (native); French (fluent); English (fluent); Citizenship: Lebanese; Born 1998

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