

Sunny Liang Tan (谭靓)

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References

Lee Ohanian Distinguished Professor of Economics Department of Economics University of California, Los Angeles ohanian@econ.ucla.edu	David Baqaee Professor of Economics Department of Economics University of California, Los Angeles baqaee@econ.ucla.edu
David Autor Daniel (1972) and Gail Rubinfeld Professor Department of Economics Massachusetts Institute of Technology dautor@mit.edu	Jon Vogel Professor of Economics Department of Economics University of California, Los Angeles jvogel@econ.ucla.edu

Education

Oct 2021 -	University of California, Los Angeles (UCLA)	Los Angeles, CA
	Ph.D. in Economics Expected Graduation: Jun 2027	
Sep 2024 - May 2025	Massachusetts Institute of Technology (MIT)	Cambridge, MA
	Visiting Scholar	
Sep 2019 - May 2021	Duke University	Durham, NC
	M.A. in Economics	
Sep 2015 - May 2019	The University of Hong Kong	Hong Kong
	B.A. in Economics & Finance; Minor in Mathematics	

Fields and Research Interests

Fields: Macroeconomics, Development Economics, International Economics
Research interests: Industrial Policy, Innovation Policy, Production Networks, GE Sufficient Statistics

Job Market Paper

Government Venture Capital, Production Networks, and Aggregate Productivity in China

Abstract: Industrial policy can affect firms that receive no direct support through their trade with policy recipients. How do these spillovers shape its aggregate productivity effects? We study government venture capital in China using linked investment, administrative, patent, and supplier–buyer data. We combine matched staggered difference-in-differences estimates of recipient and trading-partner responses with production-network sufficient statistics that distinguish technological gains from resource reallocation. Government investment concentrates in strategic sectors and reaches innovative firms. Recipients and suppliers have higher pre-investment marginal products of capital and labor than the same-industry firms supplying the offsetting resources, whereas buyers have lower marginal products. Capital and employment expand at recipients and their pre-existing suppliers and buyers, while firm-level physical productivity shows no detectable short-run increase. Valuing these responses at baseline marginal-product gaps yields a manufacturing TFP-equivalent gain of approximately 0.07% under fixed industry factor supplies. Recipients drive the gain, with positive supplier contributions partly offset by negative

buyer contributions. At the scale of 2016 manufacturing, the gain is equivalent to approximately RMB 14.51 billion in additional output, before incremental policy implementation costs. These findings show that public financing can improve aggregate efficiency through resource reallocation, with firm-to-firm trade extending its effects beyond the directly supported firms.

Working Paper

Exchange-Rate Movements and U.S. Corporations with Ivo Welch and Yuqing Zhou

Abstract: This paper revisits the exchange-rate exposure puzzle: why prior research finds weak relationships between currency movements and U.S. firms' stock returns despite substantial international trade. Linking transaction-level U.S. Census export records to financial statements and stock returns for publicly traded U.S. exporters from 1992 to 2016, we construct firm-specific exchange-rate exposure measures that reflect each firm's export destinations. Dollar depreciation is associated with economically significant increases in exports, sales, profitability, and stock returns, with export, sales, and stock-return sensitivities generally larger among larger and more export-oriented firms. In asset- or export-weighted specifications, a 1% depreciation is associated with approximately 0.4-0.6% higher exports and 0.6-0.8% higher sales. The stronger sales response is consistent with currency movements affecting domestic competitiveness as well as foreign demand, while the profitability results indicate that financial and operational hedging do not fully offset exposure. Real operating sensitivities increase over time. Stock prices respond contemporaneously, with no detectable delayed response around subsequent earnings announcements. By measuring exposure using firms' actual trading relationships and tracing its implications across operating outcomes and equity valuations, the paper contributes new evidence to the exchange-rate exposure literature and shows that substantial corporate currency exposure can coexist with timely incorporation of information into stock prices.

Work in Progress

Industrial Policy and Scale Complementarities in EV Battery Supply Chains

Abstract: This project studies whether increasing returns at successive stages of production amplify industrial subsidies through mutually reinforcing demand and cost linkages. Support for EV battery producers may expand demand for battery materials, allowing upstream suppliers to achieve lower unit costs. If these savings are passed through to battery producers, they can induce further downstream expansion. We have linked income-tax balance-sheet records, VAT data, and firm-to-firm transactions for Anhui province. The planned analysis traces policy-induced expansion through preexisting supply relationships and examines suppliers' scale, costs, investment, and sales to other buyers. Where product quantities and prices can be measured consistently, we will investigate the transmission of upstream cost savings to downstream customers. We aim to distinguish scale economies from changes in demand, markups, product composition, and supplier selection, and to identify which benefits decentralized firms fail to internalize. The quantitative goal is to discipline a production-network model with these estimates and compare upstream, downstream, and joint support under a common fiscal budget.

Industrial Policy and Induced Innovation in Semiconductor Supply Chains with Meryvn Ho

Abstract: This paper studies whether industrial policy induces technological upgrading among semiconductor equipment makers by supporting their downstream customers. Chipmakers' adoption of more advanced production technologies raises the technical requirements facing equipment suppliers. The resulting demand can make costly equipment development worthwhile, while repeated production, testing, and customer feedback can generate learning that benefits subsequent customers. Combining government venture capital investment records, administrative firm data, and supplier-buyer transactions with semiconductor fabrication capacity and process-technology data, the project traces equipment makers' exposure to policy-supported chipmakers through pre-existing supply relationships. The empirical analysis distinguishes customer capacity expansion from advances in process technology and examines whether these changes induce corresponding capability upgrading among equipment suppliers. It investigates whether supplier upgrading varies with the duration and intensity of exposure to technologically advancing customers, and whether newly developed capabilities extend to other buyers. Changes in sourcing relationships help distinguish upgrading within incumbent suppliers from substitution toward suppliers that already possess advanced capabilities. The economic mechanism is a dynamic complementarity between downstream technological adoption and upstream innovation: customer upgrading creates incentives for equipment development, while improvements in equipment enable further adoption. The paper aims to identify when industrial policy activates this process, generating transferable learning and technological advancement beyond directly financed firms.

Teaching Experience

University of California, Los Angeles (UCLA)

Teaching Assistant, Principles of Economics (Winter 2024, Spring 2026)
Teaching Assistant, Microeconomic Theory (ECON 101; Fall 2022, Winter 2023, Fall 2023)
Teaching Assistant, Microeconomic Theory (ECON 11; Winter 2026)
Teaching Assistant, Ph.D. International Macroeconomics (Spring 2024)
Teaching Assistant, Competitive Strategy (elective; Spring 2023)

Duke University

Teaching Assistant, Ph.D. Econometrics II (Fall 2020)
Teaching Assistant, Econometrics and Data Science (Spring 2021)

Presentations and Professional Service

- Presentation: South Cal International Macro Finance Conference, 2026.
- Presentation: West Coast Micro-to-Macro Development Workshop, 2026.
- Presentation: MIT Trade Lunch, 2025.
- Organizing Committee, Southern California Graduate Conference in Applied Economics, 2023.
- Initiator, UCLA Women in Economics, 2023-2025.

Research Experience

Jan 2023 - Feb 2023	University of California, Los Angeles (UCLA) Research Assistant to Jon Vogel Theoretical Analysis of Labor-Market Equilibrium	Los Angeles, CA
Nov 2018 - Jul 2022	Massachusetts Institute of Technology (MIT) Research Assistant to David Autor Occupational Data Digitalization, Classification, and Econometric Analysis	Cambridge, MA

Other Research Experience

Jan 2026 - May 2026	SoftBank China Venture Capital Data Collaboration China Artificial Intelligence and Energy	Hybrid
2023	Price Theory Summer Camp	Chicago
Jun 2017 - Jul 2017	Bank of China (Hong Kong) Summer Analyst Bond Connect Due Diligence / Regulatory Materials	Hong Kong
Dec 2016 - Jan 2017	Muxin Asset Management (Shanghai) Quantitative Research Intern A-Share Alpha Strategies / Foreign Exchange Research	Shanghai

Languages

Mandarin (native); English (fluent); Cantonese and Spanish (conversational)

Last updated: October 2026