

Paul Le Tran

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Education

- 2020–Present; **PhD, Economics**, The University of Texas at Austin (UT Austin).
2023; **MS en Passant, Economics**, UT Austin.
2017; **BA, Mathematics**, Pomona College.
2017; **BA, Mathematical Economics**, Pomona College.

Research

- My current interests involve applications of text analysis in macroeconomics, machine learning, and expectations formation. My research interests primarily focus on investigating how text analysis through machine learning can be used in macroeconomics to provide cleaner causal inference.
- I have authored or co-authored three publications on economic topics. A list of these appear below.

Works in progress

1. Pinto, Eugenio and Paul L. Tran (2019). “*Using the Evercore ISI Capital Goods Companies Survey to Forecast Orders and Shipments of Capital Goods*”.
2. Adler, Sarah, Andrew C. Chang, and Paul L. Tran (2018). “*The Story Chain Index: High-frequency Record Updates Linkage Across Time with No Metadata*”.

Finished papers

1. Tran, Paul L. (2022). “*Text Shocks and Oil Supply Surprises: Text Analysis of OPEC Announcements Using Neural Networks*”. PhD second-year paper. The University of Texas at Austin.
2. Choe, Derrick and Paul L. Tran (2017). “*An Extension to the Profits Theory of Investment: Less Competition, More Growth?*” BA thesis. Pomona College.
3. Tran, Paul L. (2017). “*Mathematically Modelling the Dynamics of Tuberculosis*”. BA thesis. Pomona College.

Honours and awards

- 2020–Present; **Graduate Teaching Fellowship**, UT Austin.
2017; **Distinction in Economics Senior Exercise**, Pomona College.
2014–2015; **Pomona College Scholar**, Pomona College.

Teaching history

- I have taught undergraduate economics students as a teaching assistant (TA) across 8 semesters.

- Fall 2021, Spring 2022, **ECO304K: Introduction to Microeconomics** (Synchronous Massive Online Course for fall semesters), TA, Profs. Acchiardo, Geerling, and Mateer, UT Austin.
Fall 2022, Spring 2023,
Fall 2024;
Summer 2022; **ECO325K: Health Economics**, TA, Prof. Schneider, UT Austin.
Fall 2020, Spring 2021; **ECO304L: Introduction to Macroeconomics**, TA, Profs. Sadler and Acchiardo, UT Austin.

Employment history

- 2020–Present; **Teaching Assistant**, UT Austin.
➤ Please see the “Teaching history” section for more details.

2018–2020; **Senior Research Assistant**, Board of Governors of the Federal Reserve System.

- [Bash, FAME, SAS] Assisted group of economists tasked with assembling staff's forecasts for U.S. business fixed investment (BFI) ahead of each Federal Open Market Committee (FOMC) meeting.
- [FAME] Compiled a memo consisting of BFI and business sentiment survey metrics across private sectors and Federal Reserve regional banks, used by Chairman Powell in his June 2019 press conference.
- [Bash, FAME, (P)SQL, SAS] Calculated relationship between industry-level capital expenditure growth rates from Compustat with metrics of trade exposure and uncertainty with China and other countries. Metrics were published in an internal cross-division FRB memo.
- [FAME] Implemented tighter incorporation of business sentiment, profit expectations, trade exposure, and uncertainty metrics into models that forecast BFI.
- [Stata] Calculated trade exposures of industries – categorised by the U.S. Census Bureau's Manufacturers' Shipments, Inventories, and Orders release – of final and input goods to China, Europe, and other regions for the purposes of understanding the effects of COVID-19 on supply chains.
- [Bash, Python, (P)SQL] Created framework that can construct daily, flexible news intensity indices for an arbitrary number of news topics. The framework is capable of performing the dictionary search, outlined in Baker, Bloom, and Davis (2016), across eight million news records in the Thomson Reuters News Archive database and constructing an index in only a few hours.
 - (Acknowledgement) The framework was used to measure non-market expectations of tax extensions through text analysis in the following working paper: Chang, Andrew C. (2023). *"Nothing is Certain Except Death and Taxes: The Lack of Policy Uncertainty from Expiring "Temporary" Taxes"*.
- [Stata] Collected and compiled the Drug Enforcement Agency's Automation of Reports and Consolidated Orders Systems database to measure opioid distribution to retail pharmacies as a proxy for opioid usage. Merged with cause-of-death data from the Center for Disease Control and Prevention's National Vitality Statistics Systems database to produce death measurements related to opioid usage.
 - (Acknowledgement) The merged database was combined with the Current Population Survey to estimate the causal effects of heroin use on labour market outcomes by proxying for heroin use with prior exposure to oxycodone in the following paper: Cho, David, Daniel I. Garcia, Joshua Montes, and Alison Weingarden (2021). *"Labor Market Effects of the Oxycodone-Heroin Epidemic"*.

2017–2018; **Research Assistant**, Board of Governors of the Federal Reserve System.

- [FAME, R] Excelled in high-pressure role supporting a group of economists charged with assembling the staff's GDP forecast ahead of each FOMC meeting.
- [FAME, R] Developed programmes used by FRB staff that expanded the FRB's forecasting apparatus to directly account for measurement error's role in published statistics when determining the true, underlying cyclical position of the economy.
- [FAME] Created new exhibits highlighting the estimates of the cyclical position of the economy through variables such as GDP, potential output, output gap, & measurement error in the *Tealbook A: "Economic and Financial Conditions: Current Situation and Outlook"* and the *Greenbooks: "Current Economic and Financial Condition"*.

Grants

2023;	PhD Summer Fellowship,	UT Austin,	\$3,000.
2020–2023;	Full PhD Teaching Assistantship Tuition Waiver,	UT Austin,	\$58,008.
2016;	Harry G. Steele Scholarship,	Pomona College,	\$4,000.
2013;	Flextronics Texas Scholarship,	Pomona College,	\$1,000.

Miscellaneous information

- **Programming:** Matlab, Python, Bash, SAS, FAME, (P)SQL, R, Stata, EViews, \LaTeX .
- **Web Development:** Vanilla HTML, CSS, JS; Jekyll.
- **Applications:** Emacs, Visual Studio Code, Sublime Text, Git, RStudio, Tableau, Microsoft Office.
- **Operating Systems:** Unix, Linux, Windows.
- **Languages:** Vietnamese (mother tongue), English (mother-tongue level).