

RESEARCH INTERESTS

Climate Finance, Asset Pricing, Public Finance, Political Economy, Real Estate

EMPLOYMENT

Assistant Professor of Finance, C.T. Bauer College of Business, University of Houston 2023-

EDUCATION

Ph.D. in Economics, Columbia University, NY, USA 2023

en route: M.A. in Economics . M.Phil. in Economics

M.B.A., Indian Institute of Management, Ahmedabad, India. 2014–16

B.Tech. Chemical Engineering, Indian Institute of Technology, Roorkee, India. 2008–12

RESEARCH PAPERS

WORKING PAPERS

- **Hurricanes, Mitigation and Capital Formation**

Abstract: A number of recent papers have investigated the impact of hurricanes on economic growth. However, there is limited understanding of the investment component of local growth after hurricanes. Using hand collected and web-scraped statutory property tax rate data in the U.S., I find that local governments respond to hurricane impact by raising tax rates. I find the hike in tax rates is persistent for 3-4 years after hurricane impact. The response is four times larger for major hurricanes compared to minor hurricanes. However, the increase in tax rates is not expected to be large enough to cause significant out-migration after the average hurricane. I supplement these findings with a novel data set of firm facility-level hurricane impact. I find that firms initially decrease investment in the quarter following hurricane impact and increase it in the final quarters of the second year after impact. Taken together, my paper presents a novel set of stylized facts on government and firm mitigation investment response that can be interpreted in light of recent general equilibrium models with disaster risk.

- **Local Government Debt Valuation**, with Oliver Giesecke and Marcelo Sena. *NASDAQ Award for Best Paper in Asset Pricing at the Western Finance Association 2023.*

Abstract: We construct a novel data set on the fiscal position of municipalities in the United States and document a secular decline in their financial health. Our data combines financial data from the Annual Comprehensive Financial Reports (ACFRs) of municipalities along with Census data of their revenue and expenditure cash flows. We find that a large share of municipalities operate with a negative net position—akin to a negative book equity position in the corporate context. We find that most of the decline originates from the accumulation of legacy obligations, i.e., pensions and other post-employment benefits (OPEBs); this is recognized by municipal bond markets through higher credit spreads. While accounting values from the ACFRs are informative, they are based on book valuations which potentially convey limited information about the economic value of assets and liabilities. Thus, we turn to the market valuation of local governments' equity by estimating an SDF that matches the valuation of a wide range of assets in the economy to prices future tax and expenditure claims. Using market prices for tax and expenditure claims, and market valuations of liability positions we find that the market values of equity are highly correlated with the book values. The negative equity position—in terms of book and market values—for some local governments suggests the presence of implicit insurance by the state and federal governments.

- **Local Governments' Response to Fiscal Shocks: Evidence from Connecticut**, with Oliver Giesecke. *Best Student Paper (Honorable Mention) at the 15th North American Meeting of the Urban Economics Association 2021.*

Abstract: The deteriorating fiscal position of municipalities across the United States raises the question which adjustment mechanisms municipalities have at their disposal and what their effects are. We utilize quasi-experimental variation in the year of property tax assessments in the state of Connecticut to provide causal evidence of the fiscal adjustment following a large decline in property values after the Great Financial Crisis. We find that local governments adjust tax rates to maintain stable tax revenues; there is no change in public employment levels and limited adjustments of public services. Our micro data on people's location further allows us to causally estimate the migration elasticity to a change in property tax rates. We find evidence of inter-state migration in response to an increase in property tax rates; and no statistically significant response of intra-state migration. Detailed property and location choice data reveal the elasticity of migration with regard to the property tax bill. An increase in the property tax bill by ten percent leads to an average increase in the migration propensity by about 1.5%.

- **Income Contingent Loans as an Unemployment Benefit**, with Joseph E. Stiglitz and Jungyoll Yun, NBER Working Paper 29198.

Abstract: Imperfections in risk and capital markets imply that individuals who lose jobs suffer from imperfect smoothing of consumption across states and times. Compared to the first best, there will be too little search. Optimal unemployment programs, which balance the marginal benefit of consumption smoothing vs. the marginal cost of the insurance externality, increase welfare and may even increase GDP. Our analytical results suggest that welfare is higher if the unemployment benefits program includes income-contingent unemployment loans (ICL), where the amount repaid depends on the individual's future income. Such loans can be financed by a risk premium imposed on the unemployed who avail themselves of the loans, and partially substitute for unemployment insurance (UI) benefits. Optimal unemployment benefits programs (UB) with ICL do a better job of smoothing consumption across states and time, and in particular total benefits when unemployed increase. We analyze how changes in key parameters, such as the degree of risk aversion and the nature of post-employment work, affect the design of the optimal UB program and the magnitude of the incremental benefits from including income-contingent loans.

- **Something Biased This Way Comes: The Effect of Media on Local Elections in the US**, with Dario Romero.

Abstract: We study how the introduction of a biased TV station operator affects electoral results. We use the staggered expansion of Sinclair Broadcasting Group (SBG) – a large TV station operator known for its conservative slant – from 2012 to 2017 and causally establish a set of facts. First, we find that SBG acquisition increases the likelihood of a Republican candidate winning the House of Representatives election. This is accompanied with a decrease in likelihood of a third-party candidate running in House elections. Interestingly, and on the other hand, in presidential elections, the Republican party candidate receives fewer votes, due to an increase in voting for third party candidates, after SBG acquisition. Second, when analyzing the winner's ideology in the House election, we document an ideological shift to the right for the winner. Part of this shift is mechanical due to a greater probability of the Republican candidate winning the election. However, we also find that Republican candidates have a greater likelihood of being conservative rather than moderate in SBG acquired places, suggesting an effect on the ideology of candidates winning primaries. We do not find any shifts in ideology for Democratic candidates. We also document other interesting facts, for example, that Republican candidates see an increase in PAC donations in SBG acquired places.

- **The Microstructure of the U.S. Housing Market: Evidence from Millions of Bargaining Interactions**, with Franklin Qian and Ye Zhang.

Abstract: We study the microstructure of the U.S. housing market using a novel data set comprising housing search and bargaining behavior for millions of interactions between sellers and buyers. We first establish a number of stylized facts, the most prominent being a nearly 50–50 split between houses that sold below final listing price and those that sold above final listing price. Second, we compare observed behavior with predictions from a large theoretical housing literature. Many predictions on the relationship between sales price, time on the market, listing price and atypicality are borne out in the data. However, existing models do not adequately explain the spread of the sales price around the final listing price. Using a modeling strategy that treats listing price changes as revisions of expectations about the sales price, we find sellers under-react to information shocks in estimating the sales price. Last, we find that the bargaining outcomes are influenced by previously undocumented buyers' bid characteristics, e.g., financing contingencies and escalation clauses, that signal a buyer's ability to complete or expedite the transaction. This suggests an important role for buyer bid characteristics, which are not explained by existing theories, in affecting bargaining power and surplus allocation in bilateral bargaining in housing transactions.

- **Repricing Avalanches in the Billion Prices Data**, with Laura Leal, Makoto Nirei and José A. Scheinkman, NBER Working Paper 29236.

Abstract: Nirei and Scheinkman (2021) proposed an equilibrium model of price adjustments with menu-costs with a finite number of firms and derived a “reproduction number” for repricing and a limit functional form for the distribution of the number of simultaneously price-adjusting firms. We show that the distribution of price-changes in data from the Billion Prices Project is well fitted by this functional form and exhibits a reproduction number that is close to unity, indicating that complementarity in price-changes plays a major role in repricings.

WORK IN PROGRESS

- Climate Treaties with Abatement Technology Discovery (with Prajit Dutta)
- Conflicting Clauses in Contracts

PUBLICATION FROM ENGINEERING DAYS

- **Stability of oil-in-water macro-emulsion with anionic surfactant: Effect of electrolytes and temperature**, with Partha Kundu, Akanksha Agrawal and Indra M Mishra, *Chemical Engineering Science*, 2013.

WORK EXPERIENCE

BEFORE ACADEMIA

Boston Consulting Group

Summer Intern 2015
Received offer to join as Senior Associate.

ITC Limited

Head Engineer, Primary Manufacturing Maintenance 2012 - 2014

RESEARCH GRANTS AND ACADEMIC AWARDS

RESEARCH GRANTS & FELLOWSHIPS

Angell Fellowship 2020
Columbia University
Dissertation Fellowship 2021
Department of Economics, Columbia University

AWARDS

NASDAQ Award for Best Paper in Asset Pricing 2023
Western Finance Association
Honorable Mention - Best Student Paper 2021
Urban Economics Association 15th Meeting
Dean’s Fellow (Ph.D. in Economics) 2016-2021
Columbia University
Institute Scholar (summa cum laude equivalent) 2016
Indian Institute of Management, Ahmedabad

OTHER INFORMATION

LANGUAGES

English (Native) Hindi (Native) Urdu (Native)
French (Beginner)

NATIONALITY

India