

Updated: Dec. 4, 2021

JEREMY BEJARANO
jeremybejarano.com
Jeremiah.Bejarano@gmail.com

Employment

Research Economist, Office of Financial Research, U.S. Department of the Treasury, 2021 – present

Education

Ph.D. Economics, University of Chicago, 2021

Dissertation: *Essays in Macroeconomics and Finance*

M.A. Economics, University of Chicago, 2016

B.A. Economics, B.S. Mathematics; Brigham Young University, 2013

References:

Professor Harald Uhlig (Chair)

Univ. of Chicago, Dept. of Economics

(773) 702-3702, huhlig@uchicago.edu

Professor Ralph S. J. Koijen

Univ. of Chicago, Booth School of Business

(773) 834-4890, ralph.koijen@chicagobooth.edu

Professor Lars Peter Hansen

Univ. of Chicago, Dept. of Economics

(773) 702-3908, lhansen@uchicago.edu

Teaching and Research Fields

Primary fields: Financial Economics, Macroeconomics

Secondary fields: Asset Pricing, Computational Economics

Teaching Experience

Spring 2019 & Spring 2018 ECON 21410: Computational Methods in Economics. Univ. of Chicago. College Lecturer (undergraduate course)

Fall Quarters: 2015, 2016, 2018, 2019 FINM 36700: Portfolio Theory and Risk Management I, Univ. of Chicago, Teaching Assistant, Hendricks. (MA course)

Fall Quarters: 2015, 2016, 2017 FINM 35000: Topics in Economics, Univ. of Chicago, Teaching Assistant, Hendricks. (MA course)

Fall 2018 STAT 32940: Multivariate Data Analysis via Matrix Decomposition. Univ. of Chicago. Teaching Assistant, Lim. (MA course)

Fall Quarters: 2016, 2017, 2018 BUSF 35001: Introductory Finance, Univ. of Chicago, Booth School of Business. Teaching Assistant, Leftwich. (MBA course)

Fall 2015 BUSX 35880. Portfolio Management. Univ. of Chicago, Booth School of Business. Teaching Assistant, Chevrier. (MBA course)

Fall 2016 ECON 21000: Econometrics. Univ. of Chicago. Teaching Assistant, Hickman. (undergraduate course)

Honors, Scholarships, and Fellowships

2018-2019 Beryl W. Sprinkel Ph.D. Fellowship

2019 Undergraduate Teaching Award

Updated: Dec. 4, 2021

2016	Ph.D. Student Research Support Grant, Fama-Miller Center for Research in Finance
2013-2014	National Science Foundation Graduate Research Fellowship, Honorable Mention
2013-2018	University of Chicago, Social Sciences Fellowship

Computer Skills

Proficient: Python (Numerical and Data Science Stack), R, Git, GitHub, LaTeX, Matlab, High Performance Computing with MPI

Other: Stata, Excel, C, SQL

Work in Progress

“Characterizing the Role of Dividend Dynamics in the Term Structure of Equity Risk Premia”

I characterize the relationship between dividend dynamics and the term structure of equity risk premia. Within a class of log-linear asset pricing models, I show that the risk exposure associated with dividend futures is equal to the impulse response function of dividends and that the average slope of the term structure depends on the relationship between the permanent and transitory components of dividends. Going beyond the class of log-linear models, I then explore the consequences of adding a transitory, mean-reverting component to dividend dynamics within several classic asset pricing models, such as the extended consumption capital asset pricing model and an external habits model. Recent empirical evidence suggests that the term structure of equity may be downward sloping on average, which is at odds with the traditional specification of many common asset pricing models. I show that this potential discrepancy can be reconciled by adjusting cash flow growth dynamics in the proposed way.

“Sectoral Shifts, Production Networks, and the Term Structure of Equity”

I argue that the term structure of equity as characterized by expected holding period returns on dividend strips can be used as a diagnostic to evaluate the quantity dynamics that arise in a macroeconomic model. For instance, as shown in the first chapter, the risk exposures associated with dividend futures are equal to the impulse responses of aggregate consumption with respect to the underlying shocks. As an application, I derive the asset pricing implications of a multi-sector production network model and use this to shed light on relative importance of idiosyncratic and aggregate total factor productivity (TFP) shocks. Though aggregate TFP in the U.S. over the last 60 years has grown approximately 1.4 percent annually, these gains have been dispersed across individual sectors, with some sectors even seeing substantial declines. This dispersion is either the result of idiosyncratic sectoral shocks or aggregate shocks that shift the composition of the economy without necessarily affecting long-run aggregate output. Decomposing the contribution of each shock to this term structure of equity, I show that the shift shocks contribute to a downward sloping term structure of equity while others contribute to an upward sloping term structure. Thus, imposing a downward sloping term structure in this model amounts to putting a lower bound on the contribution of aggregate shifts relative to other shocks.

Working Papers

“A Big Data Approach to Optimal Sales Taxation”, with Christian Baker, Richard W. Evans, Kenneth L. Judd, and Kerk L. Phillips. NBER Working Paper # 20130

We characterize and demonstrate a solution method for an optimal commodity (sales) tax problem consisting of multiple goods, heterogeneous agents, and a nonconvex policy maker optimization problem. Our approach allows for more dimensions of heterogeneity than has been previously possible, incorporates potential model uncertainty and policy objective uncertainty, and relaxes some of the assumptions in the previous literature that were necessary to generate a convex optimization problem for the policy maker. Our solution technique involves creating a large database of optimal responses by different individuals for different policy parameters and using "Big Data" techniques to compute policy

Updated: Dec. 4, 2021

maker objective values over these individuals. We calibrate our model to the United States and test the effects of a differentiated optimal commodity tax versus a flat tax and the effect of exempting a broad class of goods (services) from commodity taxation. We find that only a potentially small amount of tax revenue is lost for a given societal welfare level by departing from an optimal differentiated sales tax schedule to a uniform flat tax and that there is only a small loss in revenue from exempting a class of goods such as services in the United States.