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Office Contact Information

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Undergraduate Studies:

B.S. in Engineering Science, Tufts University, *magna cum laude*, 2011

Graduate Studies:

MS. in Economics, Tufts University, 2013
Thesis Title: "*A Spatial Investigation of Urban Labor Markets" (Linda Datcher Loury Award for Best Thesis)*

Brown University, 2013 to present
Ph.D. Candidate in Economics
Thesis Title: "*Estimating Conditional Asset Pricing Models: Efficiency and Robustness"*
Expected Completion Date: June 2019

References:

Professor Eric Renault
Brown University, Department of Economics
ERIC_RENAULT@BROWN.EDU
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Professor Susanne Schennach
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Professor Gauti Eggertsson
Brown University, Department of Economics
GAUTI_EGGERTSSON@BROWN.EDU
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Research and Teaching Fields:

Primary fields: Financial Econometrics, Econometric Theory
Secondary fields: Macroeconomics, Monetary Economics

Teaching Experience:

Fall, 2017-2018	Advanced Topics in Econometric Theory, Brown University, Teaching Assistant (TA) for Prof. Susanne Schennach
Spring, 2017-2018	Mathematical Finance, Brown University, TA for Prof. Eric Renault
Spring and Fall, 2016	Intermediate Macroeconomics, Brown University, TA for Prof. Stelios Michalopoulos and Prof. Pascal Michaillat

Fall 2015	Intermediate Macroeconomics, Brown University, Teaching Fellow
Fall 2014	Economic Growth, Brown University, TA for Prof. David Weil
Fall 2011-Spring 2013	Introduction to Statistics, Tufts University, TA for Prof. Thomas Downes and Prof. Joseph Swingle

Research Experience:

Summer 2015-2016	Brown University, Research Assistant for Prof. Gauti Eggertsson
Spring 2015-Fall 2016	Brown University, Research Assistant for Prof. Andriy Norets
Summer 2013-2014	Brown University, Research Assistant for Prof. Vernon Henderson and Prof. David Weil
Summer 2013	Tufts University, Research Assistant for Prof. Yannis Ioannides
Summer 2012	Tufts University, Research Assistant for Prof. Grant Garven

Honors, Scholarships, and Fellowships:

2019	Brown University Dissertation Fellowship (Spring 2019)
2018	Brown University Dept. of Economics Teaching Award for 2017-2018
2014	Brown University Dept. of Economics Third Year Paper Prize
2013	Tufts University Linda Datcher Loury Award for Best Master's Thesis
2012	Tufts University Graduate Economics Thesis Research Scholarship

Conferences and Seminars:

June 2017	Seminar at the Society of Financial Econometrics (SoFiE) Summer School in Brussels
November 2015	Central Bank of Chile's Nineteenth (19th) Annual Conference: *Monetary Policy through Asset Markets: Lessons from Unconventional Measures and Implications for an Integrated World* in Santiago

Professional Activities:

2018	Referee, *Journal of Econometrics*

Publications:

Antoine, Bertille, Kevin Proulx, and Eric Renault. (2018). Pseudo-true SDFs in Conditional Asset Pricing Models. *Journal of Financial Econometrics,* (Online with comments forthcoming by: Lars Hansen, Sydney Ludvigson, Patrick Gagliardini, Cesare Robotti and Raymond Kan).

Eggertsson, Gauti and Kevin Proulx. (2016). Bernanke's No-Arbitrage Argument Revisited: Can Open Market Operations in Real Assets Eliminate the Liquidity Trap? In *Monetary Policy through Asset Markets: Lessons from Unconventional Measures and Implications for an Integrated World*, edited by M. Woodford, 63-104. Santiago: Central Bank of Chile.

Job Market Paper:

"*Estimating Conditional Asset Pricing Models: Efficiency and Robustness*" (Job Market Paper)

This paper revisits the efficient estimation of conditional beta pricing models with constant betas and traded risk factors. Using the theory of redundant moments of Breusch, Qian, Schmidt, and Wyhowski (1999), we prove that contemporaneous conditional homoskedasticity of returns given the risk factors is sufficient for equilibrium pricing conditions to be redundant in the sense that they do not improve the semi-parametric efficiency bound for beta. With jointly elliptical returns and risk factors, we prove that conditional homoskedasticity is also a necessary condition for redundancy. Our theory allows us to show that, under joint ellipticity, the optimal tuning parameter for the generalized Principal Components Analysis loadings estimator of Lettau and Pelger (2018) is the multivariate excess kurtosis coefficient of the joint distribution of the returns and risk factors. This explains their finding that the optimal tuning parameter is zero when factors are strong and regression errors are normally distributed. A caveat for assuming the constancy of betas is the non-trivial risk of model misspecification. Motivated by Nagel and Singleton (2011), we proceed to evaluate the trade off between constant and state-dependent risk price models with an objective function that balances the level of unconditional pricing errors and the volatility of conditional pricing errors. We use it to estimate various conditional and unconditional Fama and French (1993) three factor models. Our results suggest that state-dependent risk prices help to deliver substantial reductions in both the level and volatility of conditional pricing errors, with nonparametric specifications delivering the best pricing performance.