

KEVIN B. PROULX

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Employment:

Analysis Group, Boston, MA
Associate – September 2019 to Present

Graduate Studies:

Brown University, 2019
Ph.D. in Economics
Thesis Title: “*Estimating Conditional Asset Pricing Models: Efficiency and Robustness*”

M.S. in Economics, Tufts University, 2013

References:

Professor Eric Renault
University of Warwick, Dept. of Economics
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Professor Susanne Schennach
Brown University, Dept. of Economics
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Professor Gauti Eggertsson
Brown University, Department of Economics
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Undergraduate Studies:

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

Research Fields:

Primary Fields: Financial Econometrics, Asset Pricing
Secondary Fields: Econometric Theory, Monetary Economics

Research Experience:

Summer 2015 – 2016	Brown University, Prof. Gauti Eggertsson
Fall 2015 – Spring '16	Brown University, Prof. Andriy Norets
Summer 2013 – 2014	Brown University, Prof. Vernon Henderson and Prof. David Weil
Summer 2013	Tufts University, Prof. Yannis Ioannides
Summer 2012	Tufts University, Prof. Grant Garven

Skills:

Python, MATLAB, R, Stata, Excel.

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 Lounsbury Award for Best Master's Thesis
2012	Tufts University Graduate Economics Thesis Research Scholarship

Conferences and Seminars:

February 2018	Simon Fraser University
June 2017	Seminar at the Society of Financial Econometrics (SoFiE) Summer School in Brussels
November 2015	Central Bank of Chile's Nineteenth (19 th) Annual Conference: <i>Monetary Policy through Asset Markets: Lessons from Unconventional Measures and Implications for an Integrated World</i> in Santiago

Professional Activities:

2018	Referee, <i>Journal of Econometrics</i>
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Publications:

Antoine, Bertille, Kevin Proulx, and Eric Renault. (2020). Pseudo-true SDFs in Conditional Asset Pricing Models. *Journal of Financial Econometrics*. (With rejoinder and comments by: Lars Hansen, Sydney Ludvigson, Patrick Gagliardini and Diego Ronchetti, 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 traded risk factors. By applying the theory of redundant moments of Breusch, Qian, Schmidt, and Wyhowski (1999), I prove that 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, I extend this to a necessary and sufficient condition for redundancy. Relatedly, I also prove under joint ellipticity that 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 result explains their finding that the optimal tuning parameter is zero when factors are strong and regression errors are normally distributed. A caveat for assuming a parametric model of

conditional betas is the non-trivial risk of model misspecification. Motivated by the empirical work of Nagel and Singleton (2011), I proceed to evaluate constant and state-dependent parametric risk price models with an objective function that balances the level of unconditional pricing errors and the volatility of conditional pricing errors. As a benchmark for comparison, I also consider nonparametric state-dependent risk price specifications. An application to unconditional and conditional Fama and French (1993) three factor models suggests that state-dependence in risk prices delivers substantial reductions in the volatility of conditional pricing errors at a small expense to the level of unconditional errors.