

**KEVIN B. PROULX, Ph.D.**

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**EMPLOYMENT**

2022-Present Amazon Web Services  
Economist (L5)

2019-2022 Analysis Group, Inc.  
Associate, September 2019 – December 2021  
Manager, January 2022 – March 2022

**EDUCATION**

2019 Ph.D. Economics, Brown University  
*Research Fields: Financial Econometrics, Asset Pricing, Monetary Policy*

2013 M.S. Economics, Tufts University

2011 B.S. Engineering Science & Quantitative Economics, Tufts University, *magna cum laude*

**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.)

Eggertson, 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.

**CONFERENCES AND SEMINARS**

2018 Simon Fraser University

2017 Society of Financial Econometrics (SoFiE) Summer School in Brussels

2015 Central Bank of Chile’s 19<sup>th</sup> Annual Conference: *Monetary Policy Through Asset Markets: Lessons from Unconventional Measures and Implications for an Integrated World*

**PROFESSIONAL ACTIVITIES**

2018 Referee, *Journal of Econometrics*

**HONORS AND FELLOWSHIPS**

2019 Brown University, Dissertation Fellowship

2018 Brown University, Department of Economics Teaching Award

2014 Brown University, Department of Economics Third Year Paper Prize

2013 Tufts University, Linda Datcher Lounsbury Award for Best Master’s Thesis

2013 Tufts University, Graduate Economics Thesis Research Scholarship

**SKILLS**

Python, R, MATLAB, Stata, Excel

## **JOB MARKET PAPER**

### Estimating Conditional Asset Pricing Models: Efficiency and Robustness

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.