Tuomas Tomunen

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Education

Ph.D. in Finance and Economics, **Columbia Business School**, 2020 (expected).

M.Phil. in Finance and Economics, **Columbia Business School**, 2018.

M.Sc. in Economics and Business Administration, **Aalto University**, Finland, 2015.

B.Sc. in Economics and Business Administration, **Aalto University**, Finland, 2013.

Fields of Research Interest

Asset Pricing, Financial Intermediaries, Insurance, Climate Finance

Research

Job Market Paper

Failure to Share Natural Disaster Risk

I test whether asset prices reflect the preferences of financial intermediaries in a setting that is well suited to tackling concerns about omitted risk factors. I analyze catastrophe bonds whose cash flows are linked to the occurrence of natural disasters and find that 71% of the variation in their expected returns can be explained by a theoretically-motivated measure of financial intermediaries' marginal rate of substitution. Assuming that natural disasters are independent of aggregate wealth, this pricing result is inconsistent any explanation based on macroeconomic risk factors. However, this result is consistent with intermediary asset pricing models suggesting that financial intermediaries are marginal investors in capital markets. I also show that the premium on natural disaster risk has decreased significantly in recent years and has become less responsive to the occurrence of disasters, suggesting that intermediaries' access to outside capital has improved over time.

Publications

Taking the Cochrane-Piazzesi Term Structure Model Out of Sample: More Data, Additional Currencies, and FX Implications, with Robert J. Hodrick, *Critical Finance Review* (Forthcoming).

We examine the statistical term structure model of Cochrane and Piazzesi (2005) and its affine counterpart, developed in Cochrane and Piazzesi (2008), in several out-of-sample analyzes. The model's one-factor forecasting structure characterizes the term structures of additional currencies in samples ending in 2003. In post-2003 data one-factor structures again characterize each currency's term structure, but we reject equality of the coefficients across the two samples. We derive some implications of

the affine model for the predictability of cross-currency investments, but we find little support for these predictions in either pre-2004 or post-2003 data. The models' forecasts fail to beat historical average return forecasts of excess rates of return for bonds and currencies in recursive out-of-sample analyses.

Beta Bubbles, with Petri Jylhä and Matti Suominen, *The Review of Asset Pricing Studies*, 2018, vol. 8 (1), 1-35. Editor's choice. Winner of Best Paper Award.

We show that an increase in a stock's breadth of institutional ownership or turnover is followed by a significant but temporary increase in its CAPM beta estimate and a decrease in its CAPM alpha. The increasing effect of breadth of ownership on beta estimates strengthens if we classify institutional investors by their historical trading horizon and look at the effect of changes in the ownership breadth of short-horizon institutional investors. These transitory, trading activity-driven components of beta estimates that we find contribute to the empirical failure of the CAPM and the large returns to long-short portfolios that bet against beta. In addition, the relations between ownership breadth, turnover and betas that we document help explain the puzzling fact that on average betas increase after seasoned equity offerings and stock splits, and decrease after stock repurchases.

Work in Progress

Fundamental Risk, with Lars A. Lochstoer, Paul C. Tetlock, and Renxuan Wang.

Prospect Theory and Macro-finance

I study the behavior of asset prices in a standard consumption-based framework where the investors draw utility from Prospect Theory value function, and where their reference-point is defined as a weighted average of past expectations on today's consumption. My model predicts occasional large jumps in asset prices when investors' perception on whether they are winning or losing changes. While maintaining investor rationality, the model predicts that the probability of stock market crash is elevated when the prices are above their long-term averages. Moreover, the model is able to generate risk-premium that matches its historical average, but it also generates counterfactually high risk-free rate volatility.

Honors, Awards, and Fellowships

Arora-Naldi Doctoral Fellowship for Best 4th Year Paper, 2019.

Best 4th Year PhD Paper in Finance, Columbia Business School, 2019.

Review of Asset Pricing Studies Best Paper Award (with Petri Jylhä and Matti Suominen), 2019.

AFA Student Travel Grant, 2019.

Best 3rd Year PhD Paper in Finance, Columbia Business School, 2018.

Foundation for the Development of Finnish Securities Markets Scholarship, 2017.

Finlandia Foundation National Scholarship, 2017.

Paul and Sandra Montrone Doctoral Fellowship for High Potential PhD Student at Columbia Business School, 2016, 2018.

Yrjö Jahnsson Foundation PhD Grant, 2015.

Columbia Business School PhD Scholarship, 2015-2019.

Professional Activities

Referee for *The Review of Financial Studies*.

Seminar Presentations at Columbia Business School Finance Free Lunch (2019), NYU Finance PhD Seminar (2019), Transatlantic Doctoral Conference at London Business School (2019), Columbia University Financial Economics Colloquium (2018, 2019), Columbia Finance PhD Program Admit Day (2019), Columbia Business School Finance PhD Seminar (2018), Aalto University (2017).

Discussant at Transatlantic Doctoral Conference at London Business School (2019).

MSFE Program Admissions Committee Member, Columbia Business School (2018, 2019).

Relevant Positions

Teaching Assistant (Capital Markets) for Kent Daniel, Columbia Business School, 2017.

Teaching Assistant (Capital Markets) for Paul Tetlock, Columbia Business School, 2017.

Consultant Intern at McKinsey & Company, Inc. Finland, 2014.

Teaching Assistant (Introduction to Finance) for Peter Nyberg, Aalto University, 2014.

Research Assistant for Matti Keloharju, Aalto University, 2013.

Research Assistant for Matti Suominen, Aalto University, 2012.

Skills

Programming

Python, MATLAB, Stata, LaTeX.

Languages

English (fluent), Finnish (native).

Other Activities

2nd Lieutenant, Finnish Navy.

Valedictorian of Naval Academy Reserve Officer Class, 2010.

Finnish National High School Competition in Mathematics for 2nd year students: 6th place, 2007.

References

Paul C. Tetlock
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