Cameron Pfiffer

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Education

2022	PhD Finance, University of Oregon
2016	MSc Corporate Finance, University of Reading
2015	BSc Southern Oregon University

Career

2022-present	**Postdoctoral Researcher**, Stanford University.
2019-present	**Core Developer**, Turing.jl. Cambridge Machine Learning Group.
2021-2022	**Visiting PhD Student**, Stanford University.
2017-2018	**Consultant/Software Engineer**, ACA Compliance Group.
2014	**Electrics Intern**, Cirque du Soleil.

Research

Publications

- Benedetti, McKeon, and Pfiffer (2021). **Blockchain Trading and Exchange**. *The Palgrave Handbook of Technological Finance*. Palgrave Macmillan, Cham. DOI: `https://doi.org/10.1007/978-3-030-65117-6_14`

Active research

- **Parameter Uncertainty, Cashflow Betas, and Earnings Announcement Premia**. Dissertation.

  Summary: I apply Bayesian methods to estimate parameters describing the relationship between firm earnings and unobserved common earnings shocks. I estimate a firm's Bayesian cashflow beta, which measures the comovement between firm earnings and a latent aggregate earnings factor. I find that firms with high parameter uncertainty about cashflow beta accrue greater earnings announcement premia and have higher abnormal returns. I derive a new measure to summarize the capacity of a firm's earnings news to convey information about macroeconomic states, and find that the most informative firms have increased earnings responses, lower earnings announcement premia, and tend to announce earlier in earnings seasons.

- **The Option Value of News**, with Greg Martin (Stanford), Zi Yang Kang (Stanford), and Shoshana Vasserman (Stanford). Work in progress.

  Summary: Traditional IO approaches to measuring consumer preferences for media have primarily relied on reports of average time use. But as switching costs for consumers decline in the online marketplace, long-run time use represents a smaller share of consumption and platforms are forced to continuously produce new content that can compete for consumers' attention. We study a canonical example of this change in industry dynamics: news. Local newspapers are specialized in producing certain types of news (e.g. accountability reporting) but the production process is by its nature stochastic. Moreover, local papers need a new business model: the number of people willing to pay for a subscription to base content is smaller than papers need to survive, but the number of people interested

in reading a subset of articles is larger than ever. Using online readership data from a group of local newspapers, we examine the extent of preference heterogeneity across different articles, and across different types of readers. We then develop a model of reading and subscription behavior, and predict the extent to which alternative bundles—in terms of content and subscription duration—might do better at providing newspapers with enough revenue to fund their reporting.

Working papers

- **Attention and size**, 2021. Working paper. Current draft.

  Summary: Economic theory suggests that attention-constrainted investors will reallocate their attention in response to macroeconomic uncertainty. I show that small and large firms differ in how they are impacted by attention allocation. The difference in weekly post-earnings announcement drift alphas between small and large firms rises by 317% in VIX crises and 118% in recessions. Curiously, this is driven more by reversals in large firm returns rather than more drift in small firm returns. Additionally, small and medium firms respond more fully to market news in crisis periods when more attention is predicted to be on common compo nents.

- **Equilibrium Futures Liquidity**, 2019. Working paper. Current draft.

  Summary: How does asymmetric information about short- and long-term news appear in commodity prices? I present a model where firms who have a schedule of endowments of a commodity choose to buy or sell futures contracts of various maturities in the presence of two trader types who are asymmetrically informed about short- and long-term price shocks. Transaction costs generally fall with contract maturity, and there is a fixed lower bound on the bid-ask spread for futures contracts with a high maturity. Futures contracts with high maturities are predictive of long-term pricing shocks. Hedgers are less affected by transaction costs when net demand is significantly positive or negative.

Teaching

- **Julia Bootcamp for Economists**, graduate students & faculty (2022), Stanford Graduate School of Business.

  Summary: I taught five four-hour workshops on the Julia language at Stanford's Graduate School of Business. The workshops informed participants on how to use Julia in economics research. Topics include Julia basics, parallelization, optimization, high-performance computing, automatic differentiation, probabilistic programming, and best practices for programming. All recordings are available here.

- **Python for Finance**, MSF/MBA level (2019-2022), University of Oregon.

  Summary: I designed this class to teach masters in finance students the basics of programming in Python, with particular focus on the data science stack (pandas, NumPy, matplotlib, etc.). Students are given applied projects in financial data analysis.

Professional activities

Organizing committee: The Microstructure Exchange (2020-present).

Summer schools: Mitsui Center Summer School on Structural Estimation in Corporate Finance (2021). Market Microstructure Summer School (2019).

Open-source software: Turing.jl (2019-present), DifferentiableStateSpaceModels.jl (2021-2022), DifferenceEquations.jl (2021-2022).

Google Summer of Code Mentor to:

- Tor Fjelde (2019), Variational Inference for Turing.jl
- Saranjeet Kaur (2020), Nested Sampling Implementations
- Michael Schneider (2021), Probabilistic PCA and Probabilistic Programming for Biology
- Carol Mak (2021), Involutive Markov Chain Monte Carlo

Referee: Journal of the Association of Environmental and Resource Economists

Additional information

Statistics: Bayesian inference, probabilistic programming, causal inference
Programming languages: Julia, R, Python, C#, Rust, SQL
Misc: Piano, banjo, rowing, cycling