Sarp Yanki Kalfa

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EDUCATION

University of California - San Diego - Rady School of Management
San Diego, CA
PhD Candidate: Finance — *Expected June 2025*

- Committee: Allan Timmermann (chair), James Hamilton, Rossen Valkanov, Gerardo Perez-Cavazos
- Research: Heterogeneity in Industry Profits and Returns
- Field of Interest: Machine Learning/Deep Learning and Financial Econometrics
- Teaching Assistant: ML for Finance, Investment Analysis, Business Forecasting, Corporate Finance
- Awards: ICPM Best Paper Award

Johns Hopkins University- SAIS
Washington, DC
MA International Economics and Finance

Pennsylvania State University - Schreyer Honors College
University Park, PA
BA International Politics, Graduated Phi Beta Kappa

PROFESSIONAL EXPERIENCE

Unlimited Funds
July 2023 – September 2023
Intern — *New York City, NY*

- Modelled Venture Capital returns leveraging publicly available data (CRSP; Bloomberg), creating an ETF to achieve firms annual AUM goals.
- Partnered with senior executives to define the vision for investment products.
- Participated in private asset data acquisition sessions with third party vendors.

International Monetary Fund
June 2018 – July 2020
Research Analyst — *Washington, DC*

- Created a quarterly GDP, and monthly inflation forecast models for the Uganda team
- Participated in the Article IV Mission to the DRC, in charge of the Real sector file.
- Managing, adjusting, and troubleshooting the Forecast and Policy Analysis System (FPAS) for the Uganda team.
- Special assignment on nowcasting GDP for Sub-Saharan African countries using night lights data and other high frequency leading indicators.
- Forecasted exchange rates, inflation, GDP growth, and mining production

BOOKS

Vector Autoregressions
December 2023 - Present
Author: James D. Hamilton — *La Jolla, CA*

- Generate Python code to accompany the book.
- Create teaching material linking Python code and lecture notes.
- Topics include: VARs, Local Projections, Granular IV, Large Datasets

Forecasting
June 2023 - Present
Author: Allan Timmermann — *La Jolla, CA*

- Lead a team of graduate students in the empirical work undertaken
- Supervise team members in estimation and python script generation
- Topics include: linear and non-linear machine learning methods, forecasts of equity risk premium, evaluation of survey forecasts

Title: Forecasting FOMC Forecasts   Published: 2021
Authors: S. Yanki Kalfa & Jaime Marquez

- Citation: Kalfa, S. Y., and Jaime Marquez. 2021."Forecasting FOMC Forecasts" Econometrics 9, no. 3: 34. https://doi.org/10.3390/econometrics9030034
- This paper assembled FOMC projections from 1992 to 2017, and examined their statistical properties. We postulated models to predict FOMC projections and estimated their parameters. We argued that these equations are the ones that the public could use to forecast FOMC forecasts and to anticipate interest rate decisions

Title: FOMC Forecasts: Are They Useful for Understanding Monetary Policy?   Published: 2018
Authors: S. Yanki Kalfa & Jaime Marquez

- Citation: "FOMC Forecasts: Are They Useful for Understanding Monetary Policy?" J. Risk and Financial Management. 2019, 12, 133. https://doi.org/10.3390/jrfm12030133
- The three golden rules of econometrics are "test, test, and test". The current paper applies that approach to model the forecasts of the Federal Open Market Committee over 1992–2019 and to forecast those forecasts themselves. Monetary policy is forward-looking, and as part of the FOMC's effort toward transparency, the FOMC publishes its (forward-looking) economic projections.

WORKING PAPERS

Title: Scale Economies, Bargaining Power, and Investment Performance: Evidence from Pension Plans
With: Tjeerd deVries, Allan Timmermann, and Russ Wermers

- Citation: de Vries, Tjeerd and Kalfa, Sarp Yanki and Timmermann, Allan and Wermers, Russell R., Scale Economies, Bargaining Power, and Investment Performance: Evidence from Pension Plans (November 15, 2023).Available at SSRN
- Winner of the 2023 ICPM Research Award
- Abstract: We explore the relation between the size of a defined benefit pension plan and its choice of active vs. passive management, internal vs. external management, and public vs. private markets. We find positive scale economies in pension plan investments; large plans have stronger bargaining power over their external managers in negotiating fees as well as having access to higher (pre-fee)-performing funds, relative to small plans. Using matching estimators, we find that internal management is associated with significantly lower costs than external management, reinforcing the enhanced bargaining power of large pension plans that have fixed-cost advantages in setting up internal management.

Title: Forecasting the Equity Risk Premium with Machine Learning
With: Allan Timmermann, and Terri van der Zwan

- Abstract: This study examines the predictive power of machine learning (ML) models on the US equity risk premium across over 6000 firms, with an emphasis on the impact of hyperparameter tuning on model performance. We assess a range of ML methods, including the elastic net, random forest, extreme gradient boosting, and neural networks. Our findings reveal that elastic net performs well, as well as shallow tree-based methods, and neural nets with node penalization, highlighting the importance of hyperparameter optimization in preventing overfitting and enhancing out-of-sample (OoS) performance. Notably, a linear model with modest l1 regularization is identified as the most steadfast option, as alternative models suffer from notable performance drops without precise tuning, posing substantial downside risk with limited upside potential. Nonetheless, proper validation techniques can serve as a safeguard. This research offers insights into the balance between model complexity and forecasting accuracy, serving as a guide for ML applications in financial market predictions.

Title: On the Application of Forecast Reconciliation of Fed Forecasts
With: Jaime Marquez

- Abstract: Policy making institutions generate projections to make decisions. Many institutions generate projections at the yearly, quarterly, and monthly frequencies. Yearly forecasts predominantly contain information about the trend, whereas monthly forecast contain information about the seasonality of the variable of interest. We provide an application of forecast reconciliation to improve on the forecast accuracy of yearly, quarterly, and monthly forecasts.

ADDITIONAL INFORMATION

Languages: English, French, Turkish
Technical Skills: Python, R, MATLAB, STATA, EViews, OxMetrics, Latex
Interests: Golf (Turkish National Team Player), Music (Recording and Mixing)