

Yuki Sato

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Research Interest

Asset Pricing, Determinants and Impacts of Commodity Prices, Machine Learning

Education

Goethe University, Germany

PhD candidate in Economics

Oct 2019 -

Funded by Japan-IMF Scholarship Program

University of Sussex, UK

MSc. Development Economics with Distinction

Sep 2017 - Jan 2019

Funded by Keio University Global Fellowship

Keio University, Japan

BA. Economics with Upper Second Class Honours (2:1)

Apr 2013 - Mar 2017

Funded by Tsutsumi Scholarship Foundation

University of Leipzig, Germany

Exchange Program in MSc. Economics

Sep 2015 - Sep 2016

Funded by JASSO and by Saitama Global Scholarship

Research

The Role of Financial Traders for Price Responses to Shocks in the Commodity Futures Markets

Job Market Paper

- Estimated a structural form consisting of simultaneous linear equations based on hedging pressure theory with selected spot price shocks, specifically to address simultaneous biases between the prices and traders' demands.

Predicting the past: Imputation of missing financial data

- Applied a graph neural network model to impute missing financial data, uncovering unintended selection bias in the construction of long-short equity portfolios within asset pricing analysis using big data.

Impacts of Commodity Terms of Trade on Economics Growth of Emerging and Low Income Countries

With Ryan Wu, IMF internship project

- Applied quantile regression to investigate the first and second moments of the impact of commodity terms of trade on medium-term economic growth in emerging and low-income countries.

Drivers of Post-pandemic Currency Movement: Recurring impacts of sovereign risks and oil prices

With Yuki Masujima, RIETI Discussion Paper No. 2024 24-E-054

- Investigated the driving factors of FX rates, focusing on the roles of sovereign credit risks and energy prices in the post-pandemic period, finding that the Japanese yen's safe-haven status has weakened.

Professional Experience

Graduate Research Assistant

Chair of Derivatives and Financial Engineering, Goethe University

March 2021 -

Frankfurt, Germany

Intern

Research Centre, German Bundesbank

July 2024 - January 2025

Frankfurt, Germany

- Created a user-friendly system to generate long-short (brown-minus-green) equity portfolios for the US, Germany, and UK by sorting firms according to their carbon footprints, while significantly reducing the calculation time from several hours to just a few minutes.

Fund Internship Program

Concessional Lending Division in the SPR department, IMF

June 2023 - Sep 2023

Washington, DC, USA

Data Analyst

Global Data department, Bloomberg

Apr 2019 - Sep 2019

Tokyo, Japan

- Created automated systems to maintain and update Japanese economic indicators, assisting a Bloomberg economist.

Intern

Economic Research department, Standard Life Aberdeen Investments

Jun 2018 - Aug 2018

Edinburgh, UK

- Applied Bayesian VAR to predict the transmission of the impact of a FED rate increase on emerging markets. This internship was part of my Master's degree.

Teaching Experience

Machine Learning in Finance - Modern Methods in Cross-Sectional Asset Pricing 2023-2024
Ph.D. course at Goethe University *Teaching Assistant*

Presentations at Conferences, Seminars, and Workshops

8th Commodity Markets Winter Workshop 2025

Brown Bag Seminars in Bundesbank, Goethe University, and Münster University 2024

Service

Discussion 2024

"Time Series Reversal: A Payment Cycle Friction" by Giuliano Graziani at Nova Finance PhD Final Countdown

Student Representative, GSEFM cohort 2019/20 2020-2024

IT Skills

Python, Stata, Matlab, Latex & MS-Office: Proficient, R: Basic

Language ability

Japanese: Native, English: Proficient, German: Basic

References

Christian Schlag
Professor of Finance at Goethe University
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Maik Schmeling
Professor of Finance at Goethe University
schmeling@finance.uni-frankfurt.de

Christoph Meinerding
Senior Economist at Research Centre, German Bundesbank
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October 27, 2024