Junxiong Gao

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CONTACT INFORMATION

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EDUCATION

PhD Candidate in Finance, University of California, San Diego 2023
Committee: Rossen Valkanov (chair), Jun Liu (Co-chair), Allan Timmermann, Snehal Banerjee, James Hamilton, Alexis Toda,

References:	Rossen Valkanov	UC San Diego	rvalkanov@ucsd.edu	(858) 534-0745
	Jun Liu	UC San Diego	junliu@ucsd.edu	(858) 534-2022
	Allan Timmermann	UC San Diego	atimmermann@ucsd.edu	(858) 534-0894

M.S. in Finance, University of California, San Diego 2016
B.S. in Statistics, University of Science and Technology of China, School of gifted young, China 2015

FIELDS OF INTERESTS

Asset pricing, Macro Finance, Econometrics

TEACHING EXPERIENCE

I served as a teaching assistant for the following courses at UC San Diego.

Fall 2018-2022	Financial Econometric and Empirical Methods, for Prof. Rossen Valkanov
Winter 2018-2022	Advanced Risk Management, for Prof. Rossen Valkanov
Spring 2018-2022	Continuous-time Finance, for Prof. Jun Liu

PROFESSIONAL ACTIVITIES AND OTHER INFORMATION

Journal referee: Journal of Empirical Finance
Research assistant: Web Scrap the Google Searching Index data. Daily Data 2012-2021 for over 1,000 stock tickers. Design python code to avoid volume restriction and automatically update the latest data: reduce the manual update time from days to hours
Programming: MATLAB, Stata, SAS, R, SQL, Python (main tool, work-level, object-oriented)

HONORS AND AWARDS

2017-2022	Rady Scholarship for PhD students at UCSD
2022 Summer	Richard A. Libby Award. 10,000 sponsored on research about tail risk in asset prices.

WORKING PAPERS

"Granular Asset Pricing" (Job Market Paper).

The market capitalization distribution of US firms has a fat tail populated by the largest firms. I refer to this fat tail as granularity and quantify it by the Pareto distribution to study asset pricing implications. Granularity breaks the diversification of idiosyncratic risks assumed by factor models. The size-adjusted idiosyncratic risk explains the expected returns such that only large firms have their idiosyncratic risks un-diversified to generate positive risk premiums. This finding explains the negative relation between idiosyncratic risk and stock returns, known as the "idiosyncratic risk puzzle." The level of granularity, measured by the Pareto coefficient of firm size, explains market expected returns since it determines the under-diversification of idiosyncratic risk at the aggregate level.

"Fiscal Imbalances, Foreign Account Imbalances, and Asset Returns, " with Rossen Valkanov and Yan Xu.

We examine cross-sector returns dynamics between the private sector (US equities), the public sector (US Treasuries), and the foreign account sector (returns to foreign assets) using a framework that ties in the separate budget constraints of these three sectors. We measure the imbalance of each sector's budget constraint and find that the US Treasuries returns are not predicted by fiscal imbalance but by imbalances in equity and foreign assets. We jointly estimate the return dynamics with an aggregate budget constraint of the three sectors. Our methods capture the cross-sector predictability due to the economic channel that imbalance in the budget constraint of one sector might lead to time variation in returns in another sector.

RESEARCH IN PROGRESS

"A Mutliple-Lucas Tree Model with Production Network " .

"Estimate Conditional Correlation with Factor Structure "

This paper adds a conditional factor structure to correlation dynamics, which presents the covariance matrix by factor loadings and hence shrink the dimension of estimation. Furthermore, the factor structure allows a closed-form solution of the inverse and determinant of the covariance matrix, which simplifies the likelihood function of the dynamic conditional correlation model. Taking the realized correlation from 5-minutes data as the benchmark, the model implies a more precise correlation. In application, the model generates out-of-sample portfolios with higher information ratio and a more precise value at risk measurements.

OTHER INFORMATION

Language: Mandarin Chinese (Native), English (Fluent)
Citizenship: China