

CONTACT INFORMATION London Business School
Regent's Park, London
NW1 4SA, United Kingdom
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ACADEMIC POSITIONS **London Business School**
Assistant Professor of Finance, August 2018–now

Stanford Graduate School of Business
Assistant Professor of Finance, September 2015 – July 2018

EDUCATION **London School of Economics and Political Science, UK**
Ph.D. in Economics, 2015.
MRes in Economics, 2011. *Distinction*

International College of Economics and Finance
National Research University Higher School of Economics, Russia
MSc in Financial Economics, 2009. *Distinction*

National Research University Higher School of Economics, Russia
BA in Economics (Mathematics), 2007. *Distinction*

RESEARCH INTERESTS Empirical Asset Pricing, Capital Markets, Financial Econometrics

WORKING PAPERS **“Spurious Factors in Linear Asset Pricing Models”**,
R&R at Review of Financial Studies

When a risk factor has small covariance with asset returns, risk premia in the linear asset pricing models are no longer identified. Weak factors, similar to weak instruments, make the usual estimation techniques unreliable. When included in the model, they generate spuriously high significance levels of their own risk premia estimates, overall measures of fit and may crowd out the impact of the true sources of risk. I develop a new approach to the estimation of cross-sectional asset pricing models that: a) provides simultaneous model diagnostics and parameter estimates; b) automatically removes the effect of spurious factors; c) restores consistency and asymptotic normality of the parameter estimates, as well as the accuracy of standard measures of fit; d) performs well in both small and large samples. I provide new insights on the pricing ability of various factors proposed in the literature. In particular, I identify a set of robust factors (e.g. Fama-French ones, but not only), and those that suffer from severe identification problems that render the standard assessment of their pricing performance unreliable (e.g. consumption growth, human capital proxies and others).

“Consumption”, with Christian Julliard

Using information in returns we identify the stochastic process of consumption – the crucial ingredient of most macro-finance models. We find that aggregate consumption reacts over multiple quarters to innovations spanned by financial markets, and this persistent component accounts for 26% of the consumption variation. These innovations drive most of the time series variation of equity returns and are priced in the cross-sections of both bonds and stocks. The data rejects the hypothesis that the stochastic volatility of consumption is proportional to market volatility, and that either of them is priced, posing a novel challenge for consumption-based asset pricing models.

“Forest through the Trees: Building Cross-Sections of Asset Returns”, with Markus Pelger and Jason Zhu
Best Paper in Asset Pricing, SFS Cavalcade

We build cross-sections of asset returns for a given set of characteristics, that is, managed portfolios that serve as test assets for asset pricing models and building blocks for new risk factors. We use decision trees to endogenously group similar stocks together by selecting optimal portfolio splits to span the Stochastic Discount Factor. Our portfolios are interpretable, and reflect many characteristics and their interactions. Compared to combinations of traditional sorts and Machine Learning prediction-based portfolios, our cross-sections have up to three times higher out-of-sample Sharpe ratios and pricing errors, and do not suffer from excessive repackaging/duplication of the original stocks.

“Bayesian Solutions for the Factor Zoo: We Just Ran Two Quadrillion Models”,
with Jiantao Huang and Christian Julliard,
Conditionally Accepted at Journal of Finance

We propose a novel framework for analyzing linear asset pricing models: simple, robust, and applicable to high dimensional problems. For a (potentially misspecified) standalone model, it provides reliable risk premia estimates of both tradable and non-tradable factors, and detects those weakly identified. For competing factors and (possibly non-nested) models, the method automatically selects the best specification – if a dominant one exists – or provides a model averaging, if there is no clear winner given the data. We analyze 2.25 quadrillion models generated by a large set of existing factors, and gain novel insights on the empirical drivers of asset returns.

WORK IN PROGRESS **“Asset Pricing with Missing Data”** (with Martin Lettau, Sven Lerner, Markus Pelger)

“Adversarial Estimation of Asset Pricing Models” (with Sven Lerner, Markus Pelger)

“Feasible Out-of-Sample Tests” (with Ashish Sahay)

“Bayesian Fama-MacBeth Regressions” (with Christian Julliard, Jiantao Huang)

TEACHING EXPERIENCE

London Business School

Finance I (core course for Master in Management): 2020

Asset Management (core course for Master in Financial Analysis): 2019, 2020, 2021

Empirical Asset Pricing (core course for Finance PhD): 2019, 2020, 2021

Stanford GSB

Corporate Finance (core course for MBA): 2017, 2018

Stanford Law School

Corporate Finance (JD/LLM), 2016, 2017, 2018

CONFERENCE AND SEMINAR PRESENTATIONS

2021: NBER Asset Pricing, Carnegie Mellon University, Cambridge Judd, University of Geneva, University of Lausanne, European Finance Association, Econometric Society (European Meeting), CEPR Advanced Forum for Financial Economics (CAFFE), Brazilian Finance Association, Berkeley Haas (scheduled), American Finance Association (scheduled), American Economic Association (scheduled)

2020: SFS Cavalcade, Princeton, Second David Backus Memorial Conference on Macro-Finance, Goethe University Frankfurt, SoFiE Online seminar, Bergen FinTech Conference, Virtual Finance Workshop, NBER-NSF Seminar on Bayesian Inference in Econometrics and Statistics, Machine Learning Day at Georgetown McDonough, Princeton, Bocconi University, SITE 2020 in Asset Pricing, Macro Finance, and Computation, Singapore Management University, Rice University, Purdue University, Stockholm University, Harvard Business School, Chicago Booth, Boston College, Fudan

2019: INSEAD, SFS Cavalcade, Lund University, Luxembourg School of Finance, Gerzensee

Asset Pricing, NBER Summer Institute Forecasting and Empirical Methods, Toulouse Financial Econometrics Conference, European Meeting of the Econometric Society (Manchester), Erasmus University Rotterdam workshop “Machine Learning for Economics and Econometrics”, Stanford MS&E, Yale Junior Finance Conference, FARFE, UCL, LSE, Imperial College, Durham, CFE, European Meeting of the Econometric Society (Manchester), The Third International Workshop in Financial Econometrics (Brazil), Chicago Booth Asset Pricing Conference

2018: University of Geneva, Vienna Graduate School of Finance, International Symposium on Financial Engineering and Risk Management (FERM 2018, Shanghai), International Conference on Econometrics and Statistics (EcoSta 2018, Hong Kong), Rome Junior Finance Conference, EIEF

2017: London Business School, FIRN Asset Pricing workshop, UIUC, Pennsylvania State University

2016: AFA, MIT Sloan, Boston University Questrom, Northwestern Kellogg S, UC Berkeley Haas, SOFIE (Hong Kong), HKU, USC Marshall, EFA (Oslo), FRB Boston, Wharton

2015: London Business School, Oxford Saïd, Groningen University, Stockholm School of Economics, Duke University, UCLA Anderson, Austin McCombs, University of Washington Foster, Stanford GSB, Michigan Ross, Bank of England, City University CASS, Princeton, Chicago Initiative in Theory and Empirics, AQR Top Finance Graduate Award at Copenhagen Business School, SIRE Asset Pricing Workshop, EFA (Vienna), The Second International Workshop in Financial Econometrics (Brazil), The Fourth International Moscow Finance Conference, European Winter Meeting of the Econometric Society (Madrid).

2014: LSE, Trans-Atlantic Doctoral Conference, Princeton EconCon, European Meeting of the Econometric Society (Toulouse), INSEAD-LSE-LBS PhD Conference, European Winter Meeting of the Econometric Society, NRU Higher School of Economics (Moscow)

2013: University of Cambridge, Bank of England, LSE

DISCUSSIONS

“Drift in Transaction-Level Asset Price Models” (W. Cao, C. Hurvich, and P. Soulier), Princeton EconCon 2014

“Structural Changes in Networks: Estimation and Evidence from Financial Institutions” (L. Liu), Princeton EconCon 2014

“Stock Market Reactions to Unconventional Monetary Policy Announcements” (J.A. Johnson and B. Paye), Second International Workshop in Financial Econometrics 2015 (Brazil)

“From Characteristics to Factors: Asset Pricing Models via Instrumented Principal Components” (B. Kelly, S. Pruitt and Y. Su), Duke Financial Econometrics Conference (2016)

“Entropy-based implied volatility and its information content” (X. Xiao and C. Zhou), MFA 2016 (Atlanta)

“Anomalies are Publicized Broadly, Institutions Trade Accordingly, and Returns Decay Correspondingly” (P. Calluzzo, F. Moneta, and S. Topaloglu), EFA 2016 (Vienna)

“Inference on Risk Premia in the Presence of Omitted Factors” (S. Giglio and D. Xiu), AFA 2017 (Chicago)

“Portfolio Choice with Model Misspecification: A Foundation for Alpha and Beta Portfolios” (R. Uppal and P. Zaffaroni), AFA 2017 (Chicago)

“Shrinking the Cross Section” (S. Kozak, S. Nagel, and S. Santosh), NBER Asset Pricing Meeting 2017 (Chicago)

“Dissecting Characteristics Nonparametrically” (J. Freyberger, A. Neuhierl, and M. Weber), SFS Cavalcade 2017 (Nashville)

“A Diagnostic Criterion for Approximate Factor Structure” (P. Gagliardini, E. Ossola, and O. Scaillet), Third International Workshop in Financial Econometrics 2017 (Brazil)

“Which Bonds to Sell in Fire Sales? Liquidity versus Commonality of Holdings” (M. Chaderina, A. Muermann, and C. Scheuch), International Moscow Finance and Economics Conference 2017 (ICEF, Moscow)

“Competition and Banks Cost of Capital: Evidence from Relatively Exogenous Differences in Regulation” (A. N. Berger, S. El Ghouli, O. Guedhami, R. A. Roman), FIRS 2018 (Barcelona)

“p-hacking: Evidence from Two Million Trading Strategies” (T. Chordia, A. Goyal, and A. Saretto), ITAM Finance 2018 (Mexico City)

“Characteristics are Covariances: A Unified Model of Risk and Return” (B. Kelly, S. Pruitt and Y. Su), FRIC 2018 (Copenhagen)

“Picking Funds with Confidence” (N. S. Gronborg, A. Lunde, A. Timmerman, and R. Wermers), EFA 2018 (Warsaw)

“Shrinking Factor Dimension: A Reduced-Rank Approach” (D. Huang, J. Li, and G. Zhou), New Methods for the Cross Section of Returns Conference 2018 (Chicago)

“Large Sample Estimators of the Stochastic Discount Factor” (S. Kim and R. Korajczyk), AFA 2019 (Atlanta)

“Estimating The Anomaly Baserate” (A. Chincio, A. Neuhierl, and M. Weber), AQR Symposium 2019 (London)

“Asset Pricing with and without Garbage: Resurrecting Aggregate Consumption” (S. Delikouras), Northern Finance Association 2019 (Vancouver)

“Do Mutual Funds Keep Their Promises?” (S. Abis and A. Lines), American Finance Association 2020

“A New Test of Risk Factor Relevance” (A. Chincio, S. Hartzmark, A. Sussman), Western Finance Association 2020

“Diverging roads: Theory-based vs. machine learning-implied stock risk premia” (J. Grammig, C. Hanenbergh, C. Schlag, J. Sonksen), European Finance Association 2021

REFEREING

American Economic Review, Econometrica, Journal of Finance, Journal of Financial Economics, Review of Financial Studies, Journal of Econometrics, Management Science, Review of Asset Pricing Studies, Journal of Business and Economic Statistics, Journal of Financial Econometrics, Journal of Empirical Finance, Journal of Banking and Finance

HONORS, AWARDS AND FELLOWSHIPS

Best Teacher Award, Master in Financial Analytics, LBS, 2021
 Best Paper in Asset Pricing Award at SFS Cavalcade, 2020
 Best Referee Award, The Review of Asset Pricing Studies, 2020
 Distinguished Referee award, The Review of Financial Studies, 2019
 Stanford GSB Trust Faculty Scholar, 2017-2018
 Best Paper in Asset Pricing Award, Midwest Finance Association, 2016
 EFA Best Doctoral Student Conference Paper Award, 2015
 AQR Top Finance Graduate Award, 2015
 Fellow in Finance, LSE, 2014-2015
 Teaching Fellow in the Economics Department, LSE, 2011-2012

LSE Department of Economics Prize for Outstanding Performance in MRes Exams, 2011
Nomination for Best Teaching Assistant Award, LSE, 2011
LSE Department of Economics PhD Scholarship, 2009-2012
Valedictorian, MSc in Financial Economics, International College of Economics and Finance,
NRU Higher School of Economics, Moscow, 2009
Scholarship from VTB-24 Bank, International College of Economics and Finance, 2007-2009
Oxford Russia Fund Scholarship for Outstanding Academic Achievements, 2007-2008
Scholarship of The President of Russia for Outstanding Students, 2007-2008
Valedictorian, BA in Economics, NRU Higher School of Economics Nizhny Novgorod, 2007
Best Student Research Paper Award, Nizhegorodky Region, Russia, 2007
Best Student Award (“Golden Vyshka”), NRU Higher School of Economics, 2006
Potanin Fund Scholarship, 2005-2007
Scholarship of the Nizhegorodsky Region Governor for Outstanding Students, 2005-2006