Basil Williams

February 15, 2024

New York University 19 West 4th Street New York, NY 10003 basil.williams@imperial.ac.uk 212-998-8423

www.basilwilliams.org

Employment

Assistant Professor of Finance

Business School, Imperial College London

London, UK

2023 -

Assistant Professor of Economics

Department of Economics, New York University

2015 - 2023 New York, NY

Visiting Scholar Stanford GSB 2018 - 2019 Palo Alto, CA

Visiting Scholar

Federal Reserve Bank of Philadelphia

2017, 2018 Philadelphia, PA

Research

Finance theory, banking, market microstructure, incentive contracting

Education

Ph.D. Finance
Duke University

2015

Durham, NC

 $B.S.\ Mathematics,\ B.S.\ Statistics$

2009

Brigham Young University

Provo, UT

Publications

"Model Secrecy and Stress Tests" (with Yaron Leitner) (2023) The Journal of Finance 78:2, 1055-1095.

• Abstract: We study whether regulators should reveal the models they use to stress test banks. In our setting, revealing leads to gaming, but not revealing can induce banks to underinvest in socially desirable assets for fear of failing the test. We show that although the regulator can solve this underinvestment problem by making the test easier, some disclosure may still be optimal, which under some conditions takes the simple form of a cutoff rule. We characterize the optimal disclosure policy combined with test difficulty, provide comparative statics, and relate our results to recent policies. We also offer applications beyond stress tests.

"Search, Liquidity, and Retention: Screening Multidimensional Private Information" (2021) Journal of Political Economy 129:5, 1487-1507.

- Abstract: A large literature has shown that asset quality may be signaled by retention, or, in a separate literature, screened by liquidity. I present a general framework to analyze both instruments, offering conditions that characterize which instrument will be used in equilibrium. I then expand the private information to include not only asset quality but also seller patience, showing that both retention and liquidity may be used to fully separate both dimensions of private information. The expanded model offers new predictions about how price, quantity, and liquidity covary with each other and with seller private information.
- Awarded the 2014 PhD Outstanding Paper Award in Honor of Stuart I. Greenbaum, Olin Business School, Washington University in St. Louis.

Awarded the 2015 Cubist Systematic Strategies Ph.D. Candidate Award for Outstanding Research.

Working Papers

"Spoofing in Equilibrium" (with Andy Skrzypacz)

- Revise and resubmit at Journal of Finance
- Abstract: We present a model of dynamic trading with exogenous and strategic cancellation of orders. We define spoofing as the strategic placing and canceling of orders in order to move prices and trade later in the opposite direction. We show that spoofing can occur in equilibrium. It slows price discovery, raises bid-ask spreads, and raises return volatility. The prevalence of equilibrium spoofing is single-peaked in the measure of informed traders, consistent with industry anecdotes that spoofers target markets of intermediate liquidity. We consider within-market and cross-market spoofing and discuss how regulators should allocate resources towards cross-market surveillance.

"Incentivizing Autonomous Workers" (w/ Erik Madsen and Andy Skrzypacz)

- Revise and resubmit at American Economic Review
- This draft supercedes the previous circulated "Incentive Design for Talent Discovery."
- Abstract: Workers in an important category of jobs select tasks autonomously. We study the tradeoff between monetary bonuses and non-monetary prizes as tools for guiding their choices. An optimal incentive scheme prioritizes workers for prizes in return for taking on underserved tasks, and this prioritization increases as incentives power up. Bonuses may additionally be used when incentives are sufficiently high-powered, but the optimal bonus is often non-monotone in the strength of incentives. Our results have important implications for the design of worker reward programs on freelancing platforms such as Uber and Airbnb.

"Stress Tests and Bank Portfolio Choice"

• Abstract: How informative should bank stress tests be? I use Bayesian persuasion to formalize stress tests and show that regulators can reduce the likelihood of a bank run by performing tests which are only partially informative. Fully disclosing stress tests are never strictly optimal, and I find conditions under which full disclosure is worse than no disclosure. Optimal stress tests give just enough failing grades to keep passing grades credible enough to avoid runs. I find that optimal stress tests, by reducing the probability of runs, reduce the optimal level of banks' capital cushions. I also examine the impact of anticipated stress tests on banks' ex ante incentive to invest in risky versus safe assets.

Dissertation

"Revealing Asset Quality: Strategic Stress Tests and Liquidity Signaling," 2014, Duke University.

 Committee: S. Viswanathan (Chair), Adriano Rampini, Felipe Varas, and David McAdams.

Other Publications

"Pollution source direction identification: embedding dispersion models to solve an inverse problem," (with William Christensen and Shane Reese). *Environmetrics* 2011; 22: 962-974.

Seminar Talks

Essex, Micro Theory Stockholm School of Economics, Finance (scheduled)

Princeton, Civitas Finance (scheduled)	2023
UW-Madison, Finance BYU, Finance Boston Questrom, Finance Finance Theory Webinar Imperial College London, Finance Toulouse School of Economics, Finance LSE, Finance Yale SOM, Finance Princeton, Micro Theory Queen Mary, Micro Theory Stony Brook, Micro Theory Stony Brook, Micro Theory Amsterdam, Finance Penn State, Micro Theory St. Louis Fed Brown Bag Indiana Kelley, Finance NY Fed Brown Bag UBC Sauder, Finance Michigan Ross, Finance (scheduled) CU Boulder Leeds, Finance (scheduled) UNC Kenan-Flager, Finance (scheduled)	2022
Finance Theory Webinar Rice Finance CU Boulder Finance Florida State Econ Ashoka Econ Stanford GSB Eddie Lunch* CEMFI* University of Houston* Asia Online Theory Seminar* Duke/UNC Econ Theory* Paris School of Economics* Collegio Alberto*	2021
Tilburg Finance Virtual Finance Theory Seminar*	2020
Penn State Macro Office of Financial Research* Yeshiva University*	2019
Federal Reserve Board New York Federal Reserve UNC-Chapel Hill Bar Ilan University* Boston Federal Reserve*	2018
New York Federal Reserve	2017
Princeton Economics, Civitas Finance Georgetown Economics	2016

Philadelphia Federal Reserve Stanford GSB, Finance

	Wharton University of Illinois, Urbana-Champaign UNC-Chapel Hill Michigan State University University of Chicago University of Rochester University of Maryland New York University, Economics London Business School Brigham Young University	2015
Conference Talks	Oxford Financial Intermediation Theory Adam Smith Juniors	2023
	Finance Theory Group CSEF-RCFS Conference on Finance, Labor and Inequality Western Finance Association Society for Economic Dynamics Society for the Advancement of Economic Theory Stony Brook Game Theory Econometric Society, European European Finance Association	2022
	Financial Intermediation Research Society Relational Contracting Conference	2021
	European Finance Association NBER Org Econ Meeting* Econometric Society World Congress*	2020
	Tsinghua Theory and Finance Workshop* Econometric Society Asian Meeting*	2019
	Midwest Macro Meetings Financial Intermediation Research Society (FIRS) Einaudi Junior Finance Conference Society of Economic Dynamics (SED) CEPR Regulatory Forbearance Workshop Federal Reserve Stress Testing Conference Lisbon Meetings in Game Theory and Applications	2018
	Macro Marrakech—Fourth Workshop in Macroeconomics	2017
	Society of Economic Dynamics (SED) Financial Intermediation Research Society (FIRS)	2016
	Econometric Society World Congress Western Finance Association (WFA) Annual Meeting FIRS Conference (invited) Wash U. St. Louis Corporate Finance Conference (poster)	2015

* Indicates presentation by coauthor.

Discussions

(2022) Midwest Finance Association; (2019) Yale Junior Finance Conference; (2018) SFS Cavalcade; (2016) FIRS, Federal Reserve Stress Testing Conference; (2015) Tel Aviv University Finance Conference, Oxford Financial Intermediation Theory (Ox-FIT), Financial Intermediation Research Society (FIRS); (2014) INFINITI Conference

Professional Association

Finance Theory Group (FTG)

2016-

Referee Service

American Economic Review; Econometrica; Review of Economic Studies; Journal of Finance; Review of Financial Studies; Journal of Financial Economics; Journal of Political Economy—Microeconomics; Games and Economic Behavior; International Economic Review; Management Science; American Economic Journal - Macro; International Journal of Game Theory; Journal of Economic Theory; Journal of Money, Credit, and Banking.

Awards

PhD Outstanding Paper Award in Honor of Stuart I. Greenbaum 2014 Olin Business School, Washington University in St. Louis St. Louis, MO

Cubist Systematic Strategies Ph.D. Candidate Award for Oustanding Research

2015

Western Finance Association Annual Meeting

Seattle, WA

Teaching

Investments and Portfolio Management

2023 -

(MSc, Risk Management and Financial Engineering)

Finance Department, Imperial College Business School

London, UK

• Portfolio choice, CAPM, Arbitrage Pricing Theory, market efficiency, behavioral finance, bond pricing, interest rate risk, futures, commodities, options.

Intermediate Microeconomics (Undergraduate)

2016-

Economics Department, New York University New York, NY • Preferences and utility, comparative statics, revealed preferences, choice under

uncertainty, intertemporal choice, firm supply, equilibrium, externalities.

Corporate Finance Theory (PhD)

2015-

Economics Department, New York University

New York, NY

• Costly state verification, moral hazard, dynamic financing, bank runs, stress tests, IPO underpricing, limited enforcement, debt overhang.

Third Year Paper Workshop (PhD)) Economics Department, New York University 2017-2018

New York, NY

Teaching Assistant, Corporate Finance (MMS)

2013-2014

Finance Department, Duke University

Durham, NC

• Discounted cash flow, financial distress costs, adjusted present value, real options, capital budgeting.

Teaching Assistant, Advanced Corporate Finance (MBA)

2011-2013

Finance Department, Duke University

Durham, NC

• Valuation under short-term financing, valuation for large projects, valuation during a financial crisis, repurchase financing, cash accumulation, international capital budgeting.

 $\begin{tabular}{ll} Teaching Assistant, Capital Markets (MMS) \\ Finance Department, Duke University \\ \end{tabular}$

 $\begin{array}{c} 2011\text{-}2012 \\ \text{Durham, NC} \end{array}$

• Portfolio optimization, CAPM, and factor models.