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Personal Information: DOB: 2nd of August 1992

Employment:
Babson College, Assistant Professor of Finance, 2022 - Present

Education

Ph.D. in Economics, The University of Chicago, 2022
Dissertation committee: Amir Sufi (chair), Ralph Koijen, Manasi Deshpande, Eric Zwick

Master of Arts in Economics, The University of Chicago, 2022
Master in Finance, Massachusetts Institute of Technology, 2014
Master of Mathematics in Actuarial Science, University of Waterloo, 2013
B.Sc., Actuarial Science, The American University in Cairo, Summa cum Laude, 2012

Teaching and Research Fields:
Primary fields: Finance
Secondary fields: Intermediary Asset Pricing, International Finance, Development Finance, Public Finance

Teaching Experience:

2020-2021	Money & Banking (BA), University of Chicago, TA
Winter, 2020	International Economics (BA), University of Chicago, Half-Time TA
Winter, 2019	Development Economics (PhD), University of Chicago, TA
Winter, 2019	Econometrics (BA), University of Chicago, Half-Time TA
Fall, 2018	Introduction to Finance (BA), University of Chicago, Lecturer
Spring 2018	Intermediate Macroeconomics (BA), University of Chicago, TA
2012-2013	Financial Statistics (BA), University of Waterloo, TA
2011	Life Contingencies II and Derivatives Pricing I&II (BA), The American University in Cairo, TA
2010	Financial Mathematics, The American University in Cairo (BA), TA

Research Experience and Other Employment:

2021	Bank for International Settlements, Technical Advisor
2019-2020	Bank for International Settlements, Senior Associate
2016-2017	ETH Zurich Financial Crisis and Real Estate Observatories, PhD Researcher
2014-2015	Goldman Sachs, London, Senior Quantitative Analyst
2014	BlackRock, San Francisco, Risk Modeling Winter Intern

	MIT Centre of Finance and Policy, Research Assistant for Professor Deborah Lucas
	Harvard Law School, Researcher in the Islamic Finance Project
2012	EBRD, London, Market Research Intern
2011-2012	Egyptian Takaful Life Insurance, Cairo, Actuarial Intern

Honors, Scholarships, and Fellowships:

2017-2022	Social Science Division Scholarship, University of Chicago
2017-2022	International House Graduate Fellowship, University of Chicago
2019-2020	PhD Fellowship, Bank for International Settlements
2019	The Department of Economics Data Award, University of Chicago
2017-2018	Sherwin Rosen Fellowship, The University of Chicago
2015-2020	James C. Hickman Scholar, The Society of Actuaries
2015	Distinguished Alumni Award, The American University in Cairo
2015	Most Promising Global Actuaries, The Society of Actuaries
2013-2014	Office of Dean of Graduate Education Fellowship, MIT
2013	Statistics and Actuarial Science Chair's Award, University of Waterloo
2012-2013	Mathematics Graduate prize and International Student Award, University of Waterloo
2012	President's Cup and Mohamed M. El-Beleidy Award, The American University in Cairo
2011	The Exemplary Student, The American University in Cairo
2011	The John Wooddy Scholarship, The Actuarial Foundation, USA
2009-2012	Academic Merit Scholarship, The American University in Cairo

Professional Designation:

CFA Charterholder since December 2020 (Passed the three exams since June 2015)
Fellow of the Society of Actuaries (FSA) since March 2015
Associate of the Society of Actuaries (ASA) since July 2012

Working Papers:

Foreign institutional Investors, U.S. Monetary Policy, and Reaching for Yield, with Boris Hofmann (BIS) and Martin Schmitz (ECB). Most recent version: April 2022

Abstract: This paper uses a unique security-level data set to demonstrate that foreign institutional investors shift their USD bond portfolios toward bonds with higher credit spreads when U.S. monetary policy tightens, which reflects institutional factors related to nominal return targets and foreign exchange hedging. Foreign institutional investors in low-yielding jurisdictions are unable to meet their return target by only investing in their home bond market. To close this return gap, they increase their exposure to the higher yielding USD-denominated bonds. However, due to regulatory requirements and internal risk management, they hedge against the foreign exchange risk. To take advantage of the yield differential, they invest in long-term USD bonds while hedging the foreign exchange risk through short-term swaps on rolling basis. This makes the shape of the USD yield curve the key factor for the hedged return on their USD-denominated bonds, especially given the persistent premium to access the USD in the swap market since 2008. When U.S. monetary policy tightens, the USD yield curve flattens, erasing all the yield differential once the cost of hedging is applied. As a result, to improve returns on USD-denominated bonds, foreign institutional investors need to take more credit risk. This behavior has meaningful effects on corporate bond prices and issuances.

Fiscal Stimulus and Pension Contributions: Evidence from the TCJA, with Anna Zabai (BIS). Most recent version: December 2020

Abstract: We evaluate the impact of the 2017 Tax Cut & Jobs Act (TCJA) pension tax break on sponsor contributions to defined-benefit retirement plans. We exploit cross-sectional variation in ex-ante exposure to the tax break. We find that the tax break induced an extra $2.8 billion of sponsor contributions to medium- and large-scale plans in 2017. However, we find strong evidence of reversal, both in terms of sponsor contributions and plan funding ratios by 2018. Our contributions model indicates that this reversal is consistent with more binding financial constraints in 2018 relative to 2019. Our results suggest that the TCJA did not have a long-lasting impact on corporate defined-benefit pension funds.

Firms Subjective Political Uncertainty: Survey Evidence of Egypt's Arab Spring. Most recent version: January 2021

Abstract: We provide evidence of firms' perceived political uncertainty. We exploit a new survey question in the Egyptian Enterprise Survey to develop a representative panel data set of firms' subjective beliefs, characteristics and performance for the Egyptian private sector. We then document how subjective political uncertainty varies in the time series as well as in the cross section of firms. Our main result is that perception of political uncertainty reflects change. Firms perceive political uncertainty more when they realize change, either good or bad. To explain this empirical result, we present a stylized two-period Bayesian updating model where firms receive signals about the impact of the political uncertainty on their business situations.

Work In Progress:

The Impact of the TCJA Pension Tax Break on Treasury Yield Curve

Abstract: Using the 2017 TCJA pension tax break as exogenous shock to their funding ratios, we study how corporate pension funds adjust their bond portfolios as their funding ratios change. We show that as funding ratios improve, pension funds tilt their portfolios toward safer bonds, mainly long-term Treasury bonds. This is consistent with the idea that pension funds take into consideration future volatility of funding gaps as well as the level of the funding gaps. We document a strong effect of the 2017 TCJA pension contribution tax break on the long end of the Treasury yield curve. Using stripped long-term Treasuries as a proxy of corporate pension funds' Treasury bonds holdings, the yield spread between 30-year and 10-year government bond yields touched its lowest level around the tax break deadline, suggesting that preferred-habitat demand by the pension sector for long-dated assets drives the long end of the yield curve. After the expiry of the tax break the Pension demand for the long term Treasury securities fell and the yield spread between 30-year and 10-year government bond yields increased to the pre-tax break level. Our results suggest that improving pension plans funding levels can lead to de-risking strategies which can have a very strong impact on the long end of the Treasury yield curve.

Optimal Monetary-Fiscal Policy with Constrained Institutional Investors: The Case of COVID-19 Shock, with Cristina Manea (Deutsche Bundesbank)

Abstract: Euro Area economies are currently facing (i) a decline in long-run interest rates, (ii) growing retirement sectors (life-insurers and pension funds) as a percentage of GDP, (iii) large budget deficits which are pushing them to their fiscal limit. Against this background, our proposed project takes the three ongoing structural trends as given, and asks how they jointly affect the optimal policy response to business cycle fluctuations. Given the policy-relevance of the COVID-19 shock at the moment, we focus on the case of a demand preference shock which drives the economy at the ZLB. But it did not study how the behavior of institutional investors might change the character of optimal policy at the ZLB, and how these effects may vary as demographic changes lead to larger pension funds as share of GDP and approach economies to their fiscal limits.

Debtors' Prisons, with Kareem Haggag (UCLA) and Adam Osman (UIUC)

Abstract: A third of the Egyptian prison population is incarcerated for the sole offense of failing to repay privately-held debt (El Sherif 2018). The practice of penalizing unpaid checks and loans with imprisonment is rooted in the French penal code adopted by Egypt in 1935. Though France abolished the criminalization of default in 1972, the institution remains in Egypt and other countries across MENA. Our innovation is to generate causal estimates of the costs and benefits (relative to a modern alternative) of this policy. We suspect that policy-makers overestimate the benefits (i.e. decreased default rates) relative to its potentially large social costs. Through a suite of randomized experiments -- in collaboration with lenders and a local non-profit that releases prisoners -- we hope to build an evidence base to move the policy debate past its current stalemate.

Publications:

Comparing ask and transaction prices in the Swiss housing market, with Diego Ardila (ETHZ) and Didier Sornette (ETHZ), *Quantitative Finance and Economics*, Vol. 5.2021, 1, p. 67-93.

Abstract: We analyze the relationship between ask and transaction prices in the Swiss residential real estate market over the 2005-2015 period. First, we present strong evidence that ask and transaction prices are co-integrated across different market segments, but they do not Granger-cause one another. Second, we analyze the cross-sectional distributions of ask and transaction prices/per living space and conclude that they do not follow the same distribution, with the distribution of transaction prices close to a log normal distribution and the distribution of ask prices exhibiting slightly fatter tails. Finally, we show significant evidence that transaction prices tend to exceed ask prices during protracted booms and bubble regimes. We discuss these empirical patterns in light of theoretical housing search models, and provide support for the hypothesis that the 2005-2015 Swiss market has been dominated by an auction like dynamics. Hence, although ask prices constitute a suitable proxy to follow the development of the Switzerland's real estate market, especially given the sparsity of available transaction data, they might be prone to underestimate the extent of price increases when the market is booming, and the magnitude of the correction when the market enters the bust phase of the housing cycle.