

**AHMED MOHAMED ABDELRAHMAN AHMED**

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**Office Contact Information**

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**Current Employment:**

2022- Assistant Professor of Finance, Babson College

**Education:**

2022 Ph.D. in Economics, The University of Chicago  
2022 Master of Arts in Economics, The University of Chicago  
2014 Master in Finance, Massachusetts Institute of Technology  
2013 Master of Mathematics in Actuarial Science, University of Waterloo  
2012 Bachelor of Science, Actuarial Science, The American University in Cairo

**Professional Designation:**

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

**Teaching Experience:**

**Lecturer:**

2025- Risk Management (BA & MBA), Babson College  
2023- Principles of Finance (BA), Babson College  
2018 Introduction to Finance (BA), University of Chicago

**Teaching Assistant:**

2020-2021 Money & Banking (BA), University of Chicago  
2020 International Economics (BA), University of Chicago  
2019 Development Economics (PhD), University of Chicago  
Econometrics (BA), University of Chicago  
2018 Intermediate Macroeconomics (BA)  
2012-2013 Financial Statistics (BA), University of Waterloo  
2011 Life Contingencies II (BA), The American University in Cairo  
Derivatives Pricing I & II (BA), The American University in Cairo  
2010 Financial Mathematics, The American University in Cairo (BA)

**Research Experience and Other Employment:**

2025-	DHCB, Economic Advisor
2022-	United Nations Development Programme, Economic Advisor
2021-	Bank for International Settlements, Technical Advisor
2024	Asset Liability Management Expert Trainer, EFG Hermes
2022	Bank of England, PhD Intern
2019-2020	Bank for International Settlements, Senior Associate
2016-2017	ETH Zurich Financial Crisis and Real Estate Observatories, Researcher
2014-2015	Goldman Sachs, London, Senior Quantitative Analyst
2014	BlackRock, San Francisco, Risk Modeling Winter Intern MIT Centre of Finance and Policy, Researcher 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:**

2026	Undergraduate Professor of the Year, Babson College
2025	Top 50 Undergraduate Business Professor, Poets & Quants Undergraduate Professor of the Year, Babson College Deans' Award for Excellence in Service, Babson College Career Champion, The Hoffman Family Undergraduate Center for Career Development, Babson College Fund for Innovation in Development Grant (€1,500,000) for "Estimating the social costs of Debtor Prisons"
2024	JPAL MENA/Egypt Impact Lab Grant (\$74,353) for "Estimating the social costs of Debtor Prisons" (Pilot)
2023-2024	Research Fellowship, Bank for International Settlements, Switzerland
2022-2023	Babson College Research Fund Grant (\$9255)
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, Switzerland
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

**College Service:**

2025-	Faculty Representative, Student Success Strategic Plan Working Group
	Faculty Representative, MLK Committee
2023-	Faculty Mentor, Global Scholars Program
2023-	Affiliated Faculty, KMH Center for Health Innovation and Entrepreneurship
2022-	Faculty Mentor for Muslim Students, Glavin Chapel
2025	Finance Division Liaison, Undergraduate Academic Policy Committee
2025	Faculty Representative, Undergraduate Award Committee
2022-2024	Finance Seminar Organizer, Finance Division

**Publications:**

**Firms Subjective Political Uncertainty: Survey Evidence of Egypt's Arab Spring,** *Applied Economics Letters*, 2025, pp. 1–10.

*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.

**Fiscal Stimulus and Pension Contributions: Evidence from the TCJA,** with Anna Zabai (UBS), *Journal of Pension Economics and Finance*, 2025, 24(2), pp. 209–234.

*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.

**Comparing ask and transaction prices in the Swiss housing market,** with Diego Ardila (ETHZ) and Didier Sornette (ETHZ), *Quantitative Finance and Economics*, 2021, 5 (1), pp. 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.

## **Working Papers:**

### **The Hedging Cost Channel of Monetary Policy Transmission: Evidence from Cross-Border Bond Flows**, with Boris Hofmann (BIS) and Martin Schmitz (ECB). BIS Working Papers #1153.

*Abstract:* This paper uses unique security-level data from euro area investment funds to analyze how foreign investors adjust their portfolios in response to changes in US monetary policy. When US policy tightens, euro area funds, in particular those with FX hedging mandates, respond in two ways: they (1) cut their overall exposure to US dollar bonds and (2) shift their remaining holdings toward higher-yielding, lower-rated securities. These findings are consistent with a conceptual framework for cross-border portfolio allocation in the presence of hedging costs. The mechanism operates through the use of rolling short-term hedging contracts, which erode the hedged yield on US dollar bonds when US rates rise. This hedging channel of monetary transmission stands in sharp contrast to the classical risktaking channel, in which monetary tightening dampens investors' reach for yield. Finally, we show that the resulting yield-driven purchases by euro area funds with FX hedging mandates have economically meaningful price effects that influence conditions in US dollar credit markets.

### **Pension De-risking and Treasury Yield Curve Flattening**, with Hui Chen (MIT)

*Abstract:* We provide causal evidence that pension funding status drives maturity-specific portfolio reallocation with material effects on Treasury yields and yield curve shape. Exploiting the Tax Cuts and Jobs Act of 2017 as a natural experiment, we show that improvements in pension funding triggered concentrated demand for ultra-long (25–30 year) Treasury STRIPS, accompanied by exits from shorter and intermediate maturities. Pension funds absorbed \$41 billion of ultra-long Treasuries, generating a pronounced flattening of the yield curve. Using instrumental variables, we find that pension demand accounts for nearly all the 52-basis point compression in the 30–10-year term spread and 155 basis points of the compression in the 30–2 spread during this period. Plan-level evidence confirms the mechanism: a 10-percentage point increase in funding raises safe-asset allocations by 1.4 percentage points, with discrete increases around the 95% funding threshold where regulatory and risk-management incentives intensify. Unlike prior work focused on falling-rate environments, we document pension de-risking in a rising-rate context, showing that institutional demand can amplify yield curve flattening and contribute to inversion even absent deteriorating fundamentals. These findings provide direct support for preferred-habitat theories and highlight how coordinated institutional rebalancing affects monetary policy transmission in deep Treasury markets.

## **Benchmark Duration Under QT: Treasury Maturity Shortening and Federal Reserve Portfolio Concentration**, with Jerome Taillard (Babson College)

*Abstract:* We study how U.S. interest-rate risk is allocated across maturity segments by combining monthly security-level Treasury outstanding data with monthly security-level Federal Reserve SOMA holdings. Since 2022, the weighted average maturity of marketable Treasury debt outstanding declines, mechanically raising rollover exposure. Over the same period, despite quantitative tightening and a decline in aggregate SOMA Treasury holdings, the Federal Reserve maintains an elevated and relatively stable footprint in the benchmark sector of the curve, with holdings concentrated around intermediate maturities and the share of the 10–15 year remaining maturity bucket held by the Federal Reserve remaining high. Although the Federal Reserve does not target a specific long-term yield, balance-sheet policies are designed to influence longer-term yields and term premia through duration removal and portfolio-balance channels. Our core empirical result is a security-level regression of Federal Reserve holding shares on remaining-maturity brackets with month fixed effects showing a discrete post-2021 increase in the coefficient for the bracket surrounding the 10-year benchmark relative to other maturity segments. These findings highlight a segmented allocation of duration risk in which Treasury maturity shortening increases refinancing frequency while the official sector remains concentrated around the maturity region most relevant for broad credit pricing.

## **When Dollar Strength Stops Widening the Basis: Regime-Dependent Hedging in the JPY–USD Swap Market**, with Oyakhilome Wallace Ibhagui (IFC and Johns Hopkins University)

*Abstract:* We show that the response of the JPY–USD cross-currency basis to U.S. dollar shocks is strongly state dependent and closely tied to the hedging behavior of Japanese holders of U.S. assets. In low-dollar regimes, unexpected dollar appreciations lead to persistent basis widening, while in high-dollar regimes the response attenuates or reverses. We develop a model in which the cross-currency basis reflects the price of net currency-hedging demand in the presence of intermediary balance sheet constraints. The key mechanism is regime-dependent asset-side hedging: when the dollar is weak, Japanese investors increase FX hedging of their large USD bond portfolios following dollar appreciations, generating sustained demand for dollar funding in swap markets; when the dollar is already strong, hedging demand responds far less. Empirically, we show that the regime asymmetry is amplified when proxies for intermediary constraints tighten, particularly at maturities associated with Japanese institutional investors. These results indicate that nonlinear basis dynamics reflect state-dependent institutional hedging flows rather than funding stress alone and highlight the central role of Japanese portfolio rebalancing in the international transmission of dollar shocks.

**Inflation Composition and Stock-Bond Correlation: Theory and Cross-Country Evidence**, with Oyakhilome Wallace Ibhagui (IFC and Johns Hopkins University) and Minqi Shu (Johns Hopkins University)

*Abstract:* We develop a model linking stock-bond co-movement to inflation regimes through the composition of inflation shocks. Inflation is decomposed into demand-driven and supply-driven components with distinct effects on asset returns: demand-driven inflation, reflecting stronger real activity, lowers stock-bond correlation, while supply-driven inflation raises it by hurting both markets. Thus, correlation depends on inflation composition, not inflation levels alone. Using threshold regressions for the United States, Eurozone, Japan, China, Switzerland, Canada, and the United Kingdom, we find that correlations are negative or weak in low-inflation regimes but turn positive above estimated thresholds, especially in the United States and Japan.

**Work In Progress:**

**Pension Funds Liquidity Management and Private Equity Investments**, with Victoria Ivashina (Harvard)

**Reverse Yankee and Hedging Costs**, with Boris Hofmann (BIS), Martin Bretschneider and (USI Lugano) and Martin Schmitz (ECB).

**Estimating the social costs of Debtor Prisons**, with Kareem Haggag (UCLA), Abdelrahman (Sawiris Foundation) Nagy and Adam Osman (UIUC)

**Credit without Banks: Lending through a Digital Commerce Platform**, with Leonardo Gambacorta (BIS) and Andrea Presbitero (IMF)