Rayhan Momin

561-827-3677 | $\underline{rayhan.momin@gmail.com}$ | New York, NY | $\underline{LinkedIn}$ | $\underline{Website}$ | U.S. Citizen

Education

University of Chicago Booth School of Business

PhD in Finance MBA

Columbia University

BA in Economics-Mathematics

DISSERTATION COMMITTEE

Raghuram Rajan (Co-Chair), Zhiguo He (Co-Chair), Stefan Nagel, Quentin Vandeweyer, and Fabrice Tourre

Research Interests

Asset Pricing, Banking, International Finance, Macro-Finance, Monetary Policy

WORKING PAPERS

1. "The Causal Effect of the Fed's Corporate Credit Facilities on Eligible Issuer Bonds" The Federal Reserve's Corporate Credit Facilities (CCFs) were launched in early 2020 amid significant volatility in the U.S. corporate bond market. The CCFs promised both direct support to firms via cash bond purchases, as well as indirect support via purchases of exchange-traded funds (ETFs). In this paper, we provide estimates of the treatment effect on corporate bond spreads from direct cash bond support by the CCFs. To do so, we introduce a novel identification strategy that exploits the ratings heterogeneity of corporate bonds across firms. We estimate that the initial announcement on March 23, 2020 of the CCFs led to a 96 bps decline in eligible issuers' spreads. To estimate the effect of the announced expansion of the facilities on April 9, 2020, we exploit a quasi-natural experiment. Fallen Angel issuers were initially eligible for the CCFs and fell out of eligibility but then had their eligibility reinstated at the same time as the expansion announcement. We compare these issues with a comparable control group and find that the treatment effect for the expanded size of the facilities is -126 bps. Using a novel causal machine learning approach, we estimate the counterfactual treatment effect for ineligible issuers had they received direct cash bond support (and additional indirect support via ETFs) on March 23, 2020 to be around -500 bps. While large, this estimate appears plausible considering that the spreads of Fallen Angel issuers tightened around 300 bps on April 9, 2020 when their eligibility was restored.

2. "Heterogeneous Treatment Effects and Counterfactual Policy Targeting Using Deep Neural Networks: An Application to Central Bank Corporate Credit Facilities"

I present a novel two-step semi-parametric difference-in-differences (DiD) estimator for computing dynamic (heterogeneous) treatment effects and policy counterfactuals. In the first step, deep neural networks are used to compute non-parametric terms in a setting with high-dimensional controls. These are inputs into the estimator evaluated in the second step. The estimator is applied to study the effects of the Federal Reserve's Corporate Credit Facilities (CCFs) on the dynamics of firm cash holdings, leverage, payout, and investment. I show that the proposed estimator delivers comparable results to static (homogeneous) treatment effects obtained from DiD panel regressions and dynamic (homogeneous) treatment effects from event study regressions with two-way fixed effects, though with important differences attributable to selection bias and heterogeneity. Firms generally increased cash holdings and leverage, while payout and investment initially fell. Firms eligible for the CCFs accumulated less cash and began deleveraging in 2021, relative to ineligible firms. Eligible firms exhibit relatively larger payouts, while they do not invest more, suggesting that the CCFs failed to meet their objective of boosting real effects. Counterfactual treatment effects provide mixed to inconclusive evidence that expanding eligibility of direct cash bond support from the CCFs would have improved investment outcomes while providing stronger evidence that firms would have increased leverage and payouts.

Chicago, IL, USA 2025 2023 New York, NY, USA 2012

3. "Central Bank Corporate Bond Purchase Programs: Commitment Matters"

Over the past decade, the European Central Bank (ECB) and the Federal Reserve expanded the limits of unconventional monetary policy to directly provide firms with financing through corporate bond purchases. Empirical research has found that these programs led to increased leverage for directly targeted firms, as well as relatively higher payouts to shareholders but no relative increase in investment, contrary to the central banks' stated objectives. This paper makes the novel observation that both the ECB and Fed engaged in de facto unsecured debt intervention in financially unconstrained firms. I show that the stated stylized empirical facts arise in a dynamic capital structure model with investment where firms lack commitment to an ex ante debt issuance policy. Unsecured debt intervention accelerates debt issuance to such an extent that higher potential debt prices are completely offset by increased leverage. Moreover, rather than being used for investment, the proceeds are distributed to shareholders. In contrast, secured debt intervention results in more favorable credit and investment dynamics, even among financially unconstrained firms. Secured debt issuance is disciplined by the collateral constraint, which induces commitment, thus allowing firms to benefit from intervention.

TEACHING EXPERIENCE

International Corporate Finance TA for Raghuram Rajan	2020, 2021
Fixed Income Asset Pricing TA for John Heaton	2021
Cases in Financial Management TA for Mark Mitchell	2021
Research Experience and Other Employment	
Federal Deposit Insurance Corporation Research Economist Trainee (Remote)	Washington D.C., USA 2022
Federal Reserve Bank of Boston Dissertation Fellow (Remote)	Boston, Massachusetts 2022
Board of Governors of the Federal Reserve Sr. Research Assistant, Advanced Foreign Economies Section, International Finance Division	Washington D.C., USA 2015 to 2017
J.P. Morgan Analyst, Country Risk Management and Sovereign Advisory, Corporate and Investment Bank	New York, NY, USA 2012 to 2015
Miscellaneous	

Computing: EViews, FAME, Git/Github, Julia, MATLAB, Mathematica, Python, R, Stata, Unix

Hobbies: Chess, Cycling, Improv, Meditation, Reading

CITIZENSHIP

United States of America