BICM RESEARCH SEMINAR SERIES

BICM Research Seminar 54

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Paper details	
Title	**Optimal Exchange-Rate Pass-Through, Network Amplification, and the Cost of Equity in Bangladesh: A Dynamic General-Equilibrium Approach with Machine Learning Validation**
Authors	**Safaeduzzaman Khan** Assistant Professor Bangladesh Institute of Capital Market
	Faysal Ahmad Khan Associate Professor Bangladesh Institute of Capital Market
	Salim Afzal Shawon CFA Head of Research BRAC EPL Stock Brokerage Limited
Presentation details	
Presenter researcher	**Safaeduzzaman Khan**
Date	05 April 2026 (Sunday)
Time	03:00 – 04:00 PM
Venue	BICM Multipurpose Hall
Expected Participants	Faculty Members of BICM & Invited Guests
Discussants	**Dr. Sayema Haque Bidisha** Professor and Pro-Vice Chancellor (Administration) Department of Economics, University of Dhaka
	Md. Sarwar Hossain Executive Director Bangladesh Bank

About the Presenter
Safaeduzzaman Khan is in service as an assistant professor at BICM. His interests include economic history, international economics, and political economy.

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The paper abstract is given below. If you have any questions regarding the seminar or you wish to present a paper or invite a guest researcher, please do not hesitate to contact S. M. Kalbin Salema, Assistant Professor, BICM at kalbin@bicm.ac.bd.

Optimal Exchange-Rate Pass-Through, Network Amplification, and the Cost of Equity in Bangladesh: A Dynamic General-Equilibrium Approach with Machine Learning Validation

Safaeduzzaman Khan[1], Faysal Ahmad Khan[1] & Salim Afzal Shawon CFA[2]

Abstract

We develop a unified macro–asset-pricing framework in which exchange-rate pass-through (ERPT) is a first-order driver of the cost of equity in a small open economy such as Bangladesh. A tractable dynamic general-equilibrium model with imported inputs, nominal rigidities, and a policy reaction function yields a state-dependent ERPT. This endogenous ERPT clarifies two valuation channels: (i) discount-rate effects through inflation expectations and the domestic risk-free term structure, and (ii) cash-flow and risk-premium effects through imported-cost pressures, demand shifts, and macro risk exposure. Empirically, we estimate multi-horizon pass-through using machine-learning forecasts on monthly data spanning exchange rates, CPI components, global commodity prices, administered price adjustments, monetary and yield-curve indicators, real-activity proxies, and equity returns as augmented by sectoral import-intensity measures. Counterfactual prediction delivers time-varying marginal ERPT surfaces, while interaction-based diagnostics quantify network amplification. The framework produces scenario-consistent equity discount rates under alternative exchange-rate and external-shock paths.

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