

Commodity Price Shocks in Commodity-Exporting Emerging Economies and Optimal Monetary Policy^{*}

Masashige Hamano[†]

Yuki Murakami[‡]

Ruthira Naraidoo[§]

First version: November 2025.

This version: August 12, 2026.

Abstract

We study the propagation mechanism of commodity price fluctuations in commodity-exporting emerging economies using a New Keynesian small open economy model. In the model, increases in commodity prices improve export competitiveness of the economy and ease borrowing conditions in international financial markets. We highlight that, although the decline in the interest rate premium following a commodity price increase stimulates imports of final goods and exerts deflationary pressure on the domestic economy, the price of final goods does not fall sufficiently under nominal rigidities. Consequently, the expansionary effects of commodity price increases on aggregate demand and output are dampened. We characterize the optimal monetary and capital control policies and show that the optimal policy response consists of lowering the policy rate and increasing the capital control tax. We also provide preliminary empirical evidence of heterogeneous effects of commodity price shocks across countries that are consistent with the theoretical findings.

JEL Classifications: E32, E44, F41, F44

Keywords: Small open economy; emerging markets; commodity prices; optimal policy

^{*}We thank Junior Maih and participants at CEF 2026 and the seminar at Kobe University for helpful comments and discussions. This project was supported by JSPS KAKENHI Grant Number 19KK0338 and 24KJ2083, and NRF Grant Number JSPS230914149324. All remaining errors are our own.

[†]Waseda University, School of Political Science and Economics, 1-6-1 Nishiwaseda Shinjuku-ku, Tokyo 169-8050, JP, email: masashige.hamano@waseda.jp

[‡]Sophia University, Graduate School of Economics, 7-1 Kioi-cho, Chiyoda-ku, Tokyo 102-8554, JP, email: yukimurakami@sophia.ac.jp

[§]University of Pretoria, Department of Economics, Pretoria, South Africa, email: ruthira.naraidoo@up.ac.za