## Journal of Emerging Market Finance

# Exchange Rate Volatility and Financial Stress: Evidence from Developing Asia

Daitri Tiwary , Khanindra Ch. Das , Jagdish Shettigar, Pooja Misra

First Published March 6, 2022 | Research Article https://doi.org/10.1177/09726527221078634

#### Article Information

Article first published online: March 6, 2022

Daitri Tiwary<sup>1</sup>, D Khanindra Ch. Das<sup>1</sup>, Jagdish Shettigar<sup>1</sup>, D Pooja Misra<sup>1</sup> Birla Institute of Management Technology, Greater Noida, Uttar Pradesh, India

Corresponding Author:

Daitri Tiwary, Birla Institute of Management Technology, Plot No. 5, Knowledge Park II, Greater Noida, Uttar Pradesh 201306, India. E-mail: daitri.tiwary\_fpm19@bimtech.ac.in

#### Abstract

The study investigates the role of financial stress in triggering exchange rate volatility in developing Asia, where instability in financial markets contributes to the extent of exogenous shocks. We investigate volatility clustering in nominal exchange rate (NER) of dollar-denominated domestic currencies of developing Asia. Using country-level monthly time series data from 2006 to 2019 of NER and financial stress for seven representative economies of developing Asia, namely, Philippines, Indonesia, Malaysia, India, Republic of Korea, Singapore, and Thailand, we construct conditional volatility of returns. With volatility clustering in dollar-denominated exchange rates, we find significant bi-directional and predictive causality in exchange rate volatility and financial stress using vector autoregressive model and test for Granger's causality. Our findings corroborate with the third-generation model of currency crises in the context of emerging economies. For developing Asian nations, our study implicates the strength of the financial system impacting the level and spread of stress, inducing exchange rate volatility. Our empirical model propounds that though stress is driven by multiple factors, management of exchange rate volatility in emerging economies will need to address problems not only in the foreign exchange market, but also in other financial sectors.

JEL Codes: G01, F31, C58

#### **Keywords**

Financial stress, exchange rate volatility, developing Asia

### 1. Introduction

a