

Prediction Errors of Macroeconomic Indicators and Economic Shocks for ASEAN Member States, 1990–2021*

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Abstract

We analyse economic shocks on six selected ASEAN Member States (Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam) in three dimensions: global, domestic, and uncertainty. We collect 1990–2021 macroeconomic indicators and calculate macroeconomic shocks based on prediction errors of the real GDP growth rates. We first demonstrate that the countries were, on average, significantly subjected to unforeseen negative economic shocks. Second, we show high synchronisation of economic fluctuations and shocks within the countries as well as with the world. Third, by conducting regression analyses separately for each country, we derive (i) positive association between variations of the global real GDP growth rates and countries' economic shocks; (ii) different quantitative significance of the previous estimates amongst the countries; (iii) country-specific, domestic shocks; and (iv) correlation of global and country-level uncertainty indices with negative economic shocks in the Philippines and Singapore, respectively. The calculation points to the relative importance of global, domestic, and uncertainty shocks in the AMS as 56.9%, 40.1%, and 3.0%, respectively. Finally, based on this dataset, we also review the effect of the COVID-19 pandemic on these countries.

JEL Classification: E32; F44; N15

Keywords: Prediction error; Economic shock; Uncertainty; Business cycle synchronisation

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