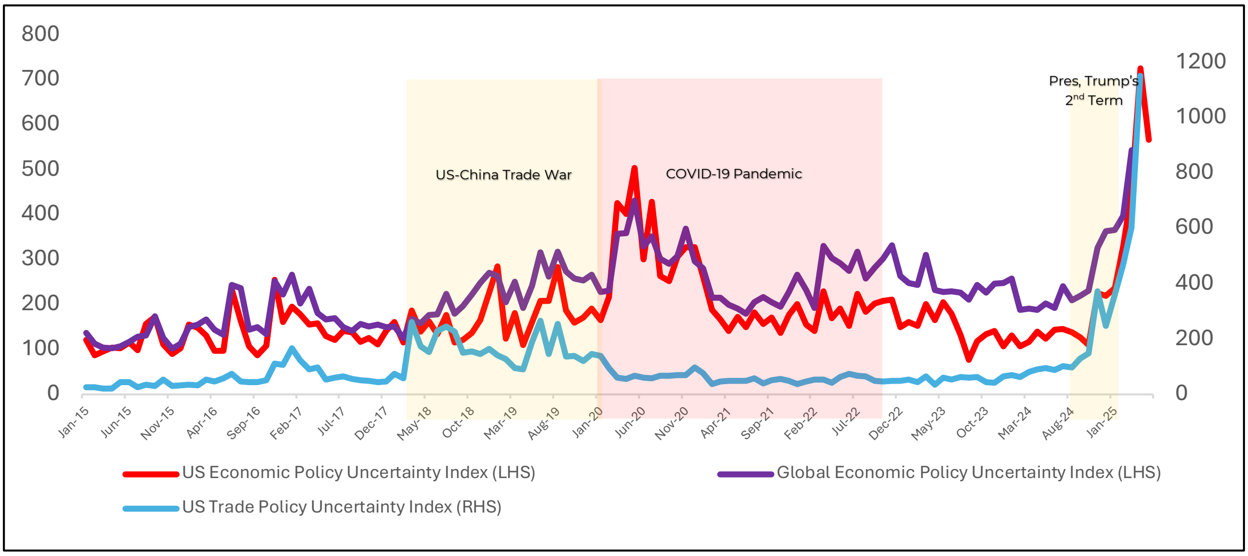
Box Article 3:

Implications of Global Uncertainty for the Philippine Economy[1]

Uncertainty has emerged at the forefront of the global economic landscape following the announcement of new tariff measures by the United States (US) and countermeasures from its trading partners. Although a 90-day tariff pause and prospects of bilateral negotiations provided partial relief to global financial markets, this relief may only be temporary. Ongoing geopolitical tensions in the Middle East are also seen to increase global uncertainty further. As shown in *Figure 1*, record-high levels of economic and trade policy uncertainty in the US, as well as global economic policy uncertainty, were observed starting in late 2024.

Figure 1

Monthly News-Based Uncertainty Indicators



Sources: Caldara et al. (2020); Baker et al. (2016)

LHS – left-hand side
RHS – right-hand side

For small open economies like the Philippines, this heightened environment of uncertainty—primarily driven by international trade tensions and geopolitical instability—poses significant challenges to monetary policy formulation and macroeconomic management. Increased uncertainty can dampen investment, disrupt consumption, and tighten financial conditions (Dees & Güntner, 2014; Kang et al., 2017), making it more difficult for central banks to calibrate policy responses to achieve their primary mandates.

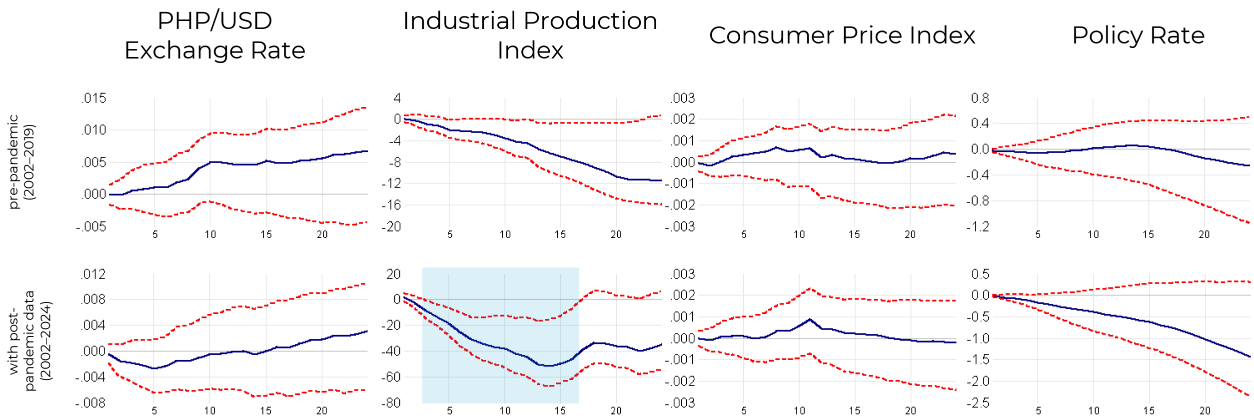
This article examines the response of domestic macroeconomic variables to external sources of uncertainty, quantified through survey-based indicators (i.e., dispersion in professional forecasts for US economic output and prices) and news-based indices (i.e., count of keywords related to uncertainty in foreign news articles). The analysis employs structural vector autoregression (SVAR) and factor-augmented vector autoregression (FAVAR) models, utilizing monthly data spanning the period 2002–2024.

The overall framework of this study is reflected in the SVAR's Cholesky ordering. Meanwhile, the FAVAR framework incorporates a broader set of observed and latent factors to better capture the complex interactions among the variables.[2]

Following Ha et al. (2024), this study employs a Cholesky ordering of endogenous variables, where US economic output and prices determine the level of external policy uncertainty, which, in turn, influences the outturns for Philippine macro variables. Alternative ordering schemes, where uncertainty drives US economic output and inflation, were also checked for robustness.

Figure 2 displays the response of key domestic macroeconomic variables to shocks in global economic policy uncertainty during both pre- and post-COVID-19 periods. Based on the estimated SVAR model, news-driven surges in global economic policy uncertainty led to a decline in the Philippine industrial production index over a 13-month horizon. The impact is more substantial when the COVID-19 pandemic period is included in the sample. A similar decline in economic activity is observed when the Purchasing Managers' Index (PMI) is used as a proxy for domestic output.

Figure 2
Impulse Response of Philippine Macroeconomic Variables to Global Economic Policy Uncertainty Using Structural Vector Autoregression[3]



Source: Bangko Sentral ng Pilipinas staff estimates

The impulse response functions show the responses of the macroeconomic variables above to a 1.0-percent shock in uncertainty. The blue shade denotes statistically significant periods.

In contrast, bilateral exchange rate, domestic prices, and monetary policy exhibit muted responses to global economic policy uncertainty shocks, with the confidence bands of their respective impulse response functions (IRFs) encompassing the baseline or zero level throughout the horizon.

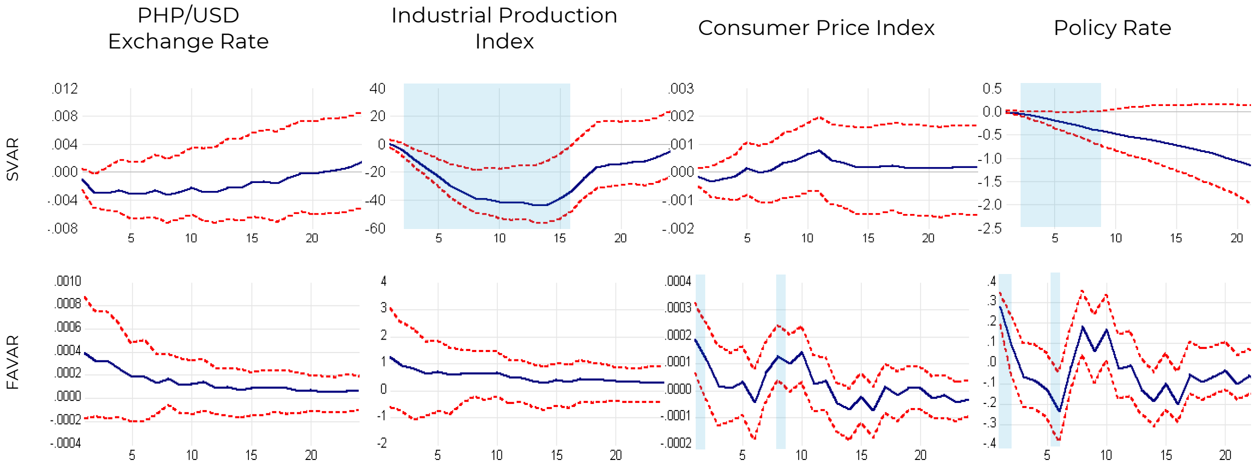
Figure 3 illustrates the response of domestic macroeconomic variables to shocks related to US economic policy uncertainty, using both SVAR and FAVAR models, with data spanning 2002–2024. The PHP/USD exchange rate continues to exhibit no statistically significant response to shocks in US economic policy uncertainty.

Meanwhile, similar to the effect of global policy uncertainty, US economic policy uncertainty poses a significant and negative impact on the Philippine industrial production and PMI. This response is observed in both pre- and post-pandemic periods but is less pronounced in the FAVAR model.

Figure 3

Impulse Response of Philippine Macroeconomic Variables to United States Economic Policy Uncertainty Using Structural and Factor-Augmented Vector Autoregression[3]

2002–2024



Source: Bangko Sentral ng Pilipinas staff estimates

The impulse response functions show the responses of the macroeconomic variables above to a 1.0-percent shock in uncertainty. The blue shade denotes statistically significant periods.

Furthermore, ambiguities in the direction of US economic policy have a statistically significant negative influence on domestic price levels in the short term, reflecting the downside impact of uncertainty on aggregate demand. The policy rate also demonstrates a brief but significant downward adjustment in both SVAR and FAVAR models. This reflects the central bank's proactive response to ease monetary policy to mitigate the contractionary effects of external uncertainty.

As former Federal Reserve Chair Alan Greenspan (2003) noted, "Uncertainty is not just an important feature of the monetary policy landscape; it is the defining characteristic of that landscape." Monetary authorities must remain vigilant to global sources of risks and uncertainty that could affect domestic macroeconomic conditions.

Preliminary empirical evidence from the Philippines (*Table 1*) suggests that uncertainty shocks result in a decline in industrial production, accompanied by lower inflation and a reduction in the policy rate in the short term. This result remains robust in periods both before and after the COVID-19 pandemic, using various empirical approaches and specifications. Future research can assess the impact of global uncertainty on capital flows and investments, as well as explore potential nonlinear effects.

Table 1
Significant Reactions of Philippine Macroeconomic Variables to External Uncertainty

	Exchange Rate				Industrial Production				Inflation				Policy Rate			
	2002–2019		2002–2024		2002–2019		2002–2024		2002–2019		2002–2024		2002–2019		2002–2024	
	SVAR	FAVAR	SVAR	FAVAR	SVAR	FAVAR	SVAR	FAVAR	SVAR	FAVAR	SVAR	FAVAR	SVAR	FAVAR	SVAR	FAVAR
US Output Uncertainty						↓			↓	↓		↓		↓		↓
US Inflation Uncertainty						↓				↓		↓		↓		↓
US EPU	↓				↓		↓			↓		↓	↓			↓
Global EPU					↓		↓			↑						

Source: Bangko Sentral ng Pilipinas staff estimates

The arrows indicate the direction of the impact from uncertainty based on the impulse response functions.
SVAR – structural vector autoregression
FAVAR – factor-augmented vector autoregression
EPU –Economic Policy Uncertainty

ENDNOTES

1/ The authors of this box article are Rossvern S. Reyes, Jan Christopher G. Ocampo, and Jasmin E. Dacio of the Department of Economic Research. A full version of this study is forthcoming.

2/ In the FAVAR model, principal component analysis (PCA) is used to extract a small number of underlying factors from numerous economic time series. This enables the summarized factors to be included in the vector autoregression, capturing broader economic dynamics more effectively. The PCA employed in this study includes world commodity prices, US stock market volatility indicators, and other news-based measures of uncertainty.

3/ The IRF charts display 95.0-percent confidence bands as red dashed lines. Shaded blue areas indicate periods when response is significant to a 1.0-percent shock in uncertainty. The horizontal axis represents a 24-month horizon.

REFERENCES

Baker, S. R., Bloom, N., & Davis, S. J. (2016). Measuring economic policy uncertainty. *The Quarterly Journal of Economics, 131*(4), 1593–1636. https://doi.org/10.1093/qje/qjw024

Bernanke, B. S., Boivin, J., & Eliasz, P. (2004). *Measuring the effects of monetary policy: A factor-augmented vector autoregressive approach* [National Bureau of Economic Research Working Paper No. 10220]. https://www.nber.org/papers/w10220

Caldara, D., Iacoviello, M., Molligo, P., Prestipino, A., and Raffo, A. (2020). The economic effects of trade policy uncertainty. *Journal of Monetary Economics, 109*, 38–59. https://doi.org/10.1016/j.jmoneco.2019.11.002

Dees, S. & Güntner, J. (2014). *The international dimension of confidence shocks* [European Central Bank Working Paper No. 1667]. https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1669.pdf

Greenspan, A. (2003). Monetary policy under uncertainty [Speech]. Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming. https://www.federalreserve.gov/boarddocs/speeches/2003/20030829/default.htm

Ha, J., Islamaj, E., & Mattoo, A. (2024). *Implications of heightened global uncertainty for the East Asia and Pacific Region* [World Bank Research and Policy Briefs No. 63]. https://hdl.handle.net/10986/42090

Kang, W., Ratti, R. A., & Vespignani, J. (2017). The impact of global uncertainty on the global economy, and large developed and developing economies. [Federal Reserve Bank of Dallas Working Paper No. 303]. https://doi.org/10.24149/gwp303