HOW ECONOMIC POLICY UNCERTAINTY SPREADS ACROSS BORDERS: THE CASE OF LATIN AMERICA

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Abstract

Latin America's growth has been hindered by institutional instability and volatile economic policies, often driven by political cycles. These shifts generate uncertainty that deters investment and disrupts productivity. We analyze this phenomenon using Economic Policy Uncertainty (EPU) indices, assessing their impact on domestic macroeconomic variables via regional spillovers - spurred by regional proximity - and also considering the global transmission of EPU shocks to key trade and financial partners. To do so, we assemble a comprehensive and comparable database of EPU indices for the region: first, we construct new indices for Bolivia, Ecuador, Paraguay, Uruguay and Venezuela, and second, we update the ones available in other papers for Argentina, Brazil, Chile, Colombia, Mexico and Peru using a comparable methodology. Our results show that: (i) regional EPU shocks reduce regional GDP growth, deter capital inflows and spark exchange rate instability; (ii) Brazil and Mexico are key sources of uncertainty spillovers within the region; and (iii) EPU shocks in Latin America affect financial and real variables in major partner economies, with Spain being particularly exposed.

Keywords: economic policy uncertainty, textual analysis, Latin America, spillovers.

JEL classification: C43, D80, E32, O11.

Resumen

El crecimiento de América Latina se ha visto limitado por la inestabilidad institucional y la volatilidad de las políticas económicas, a menudo condicionadas por los ciclos políticos. Estos cambios generan incertidumbre que frena la inversión y reduce la productividad. Analizamos este fenómeno utilizando índices de incertidumbre de la política económica (EPU, por sus siglas en inglés), y evaluamos su impacto sobre las variables macroeconómicas domésticas a través de los efectos de contagio regional, impulsados por la proximidad geográfica, y considerando también la transmisión global de *shocks* de los EPU hacia los socios comerciales y financieros clave. Para ello, elaboramos una base de datos completa y comparable de los índices EPU para la región: en primer lugar, construimos nuevos índices para Bolivia, Ecuador, Paraguay, Uruguay y Venezuela; en segundo lugar, actualizamos los EPU disponibles en otros estudios para Argentina, Brasil, Chile, Colombia, México y Perú, aplicando una metodología homogénea. Nuestros resultados muestran que: i) los *shocks* regionales del EPU reducen el crecimiento del PIB, desincentivan las entradas de capital y generan inestabilidad cambiaria; ii) Brasil y México son fuentes clave de contagio de incertidumbre dentro de la región, y iii) los *shocks* de los EPU en América Latina tienen un impacto en las variables tanto financieras como reales de sus principales socios económicos, con España como uno de los países más vulnerables.

Palabras clave: incertidumbre de la política económica, análisis textual, América Latina, efecto contagio.

Códigos JEL: C43, D80, E32, O11.

1 Introduction

Latin America has long faced challenges in achieving sustained economic growth, and still lags behind other emerging regions that began from lower starting points, such as Southeast Asia or Eastern European countries. One of the foundations for generating sustained and inclusive growth is the strength of institutional arrangements in a country, at the economic, political, and legal levels (Acemoglu, Johnson, and Robinson (2001)). A substantial body of literature identifies institutional instability and economic policy volatility as central impediments to development (e.g., Midlarsky and Tanter (1967), Barro (1996), Alesina et al. (1996), Fatás and Mihov (2013), Besley and Mueller (2018), Aromí, Bermúdez, and Dabús (2022), Del Tedesco Lins (2024), Seffino and González (2025)). These factors foster an environment of uncertainty that undermines both domestic and foreign investment, while also impeding productivity and inclusive development.

Institutional instability refers to the weakness or inconsistency of political and legal institutions, including frequent leadership changes, corruption, and a lack of rule of law. This erodes trust in public institutions and discourages investment. Compounding this, Latin American countries have experienced frequent and drastic shifts in economic policy, oscillating between neoliberal reforms (e.g., privatization, deregulation, trade liberalization) and populist or protectionist measures (e.g., nationalizations, subsidies, price controls). These swings often reflect political cycles rather than long-term strategic planning.

This paper revisits these dynamics through the lens of the Economic Policy Uncertainty (EPU) index, a textual indicator based on newspaper coverage that captures uncertainty about the future course of economic policy. It was introduced by Baker, Bloom, and Davis (2016). Volatile policies, as captured by the EPU, are strongly correlated with institutional instability. Periods marked by political shifts, major reforms, or deteriorating governance tend to coincide with spikes in EPU values.

Recent research has emphasized the spatial dimension of economic policy uncertainty, showing that EPU shocks are not only transmitted through trade and financial

channels but also influenced by geographic proximity. Adjei, Tweneboah, and Owusu Junior (2025) apply spatial econometric techniques to a group of G20 emerging market economies (EMEs) and find significant spatial autocorrelation in EPU values and macroeconomic indicators. Their findings suggest that neighboring countries tend to exhibit similar levels of uncertainty, reinforcing the idea that uncertainty spillovers may be geographically patterned. This spatial perspective complements existing literature on textual EPU indices and motivates our focus on regional and cross-border transmission mechanisms.

While the literature on spillovers in EMEs is extensive, it has predominantly focused on two key dimensions. First, a large body of work examines how shocks originating in major advanced economies, particularly the United States, transmit to EMEs through monetary policy channels and global financial conditions (e.g., Kaminsky, Reinhart, and Végh (2004), Ahmed, Coulibaly, and Zlate (2017), Tillmann, Kim, and Park (2019), Akinci and Queralto (2024), Andres-Escayola et al.(2024b)). These studies underscore the vulnerability of EMEs to external shocks and highlight the role of domestic fundamentals in shaping the magnitude of spillovers. Second, within EMEs, the focus has largely been on financial market interdependencies, especially equity and bond market connectedness (e.g., Dell'Erba, Baldacci, and Poghosyan (2013), Cekin et al. (2020), Aytaç and Saraç (2022), Khalfaoui, Hammoudeh, and Rehman (2023), Zhou and Ye (2023), Lo et al. (2024), Assaf et al. (2025), Marín-Rodríguez, González-Ruíz, and Botero (2025), Llosa, Pérez-Forero, and Tuesta (2025)). In contrast, the spatial transmission of economic policy uncertainty across EMEs, particularly in Latin America and from specific EMEs to their main trade and financial partners, remains underexplored.

In this context, we examine the following questions: Do frequent policy changes affect key macro-financial variables in Latin American countries? Do uncertainty shocks in one country spill over to others in the region? And do they extend to major trade and financial partners?

To this aim, we construct new EPU indices for Bolivia, Ecuador, Paraguay, Uruguay,

and Venezuela, and update existing ones for Argentina, Brazil, Chile, Colombia, Mexico, and Peru from Ghirelli, Pérez, and Urtasun (2021) and Andres-Escayola et al. (2024a). All indices follow a harmonized methodology based on keyword searches in local, Spanish, and international English-language newspapers.

Our empirical strategy consists of three steps. First, using a structural panel Bayesian vector autoregression (BVAR), we find that regional EPU shocks are associated with higher external debt costs, currency depreciation, reduced non-resident capital inflows, a decrease in foreign direct investment (FDI), and slower GDP growth. Second, we assess intra-regional EPU spillovers. While uncertainty has been widely studied, its interconnectedness within EMEs has been studied less. We contribute to this literature by analyzing EPU spillovers across Latin American countries using directional spillover metrics. Our results show that the region exhibits strong interlinkages, with Brazil and Mexico acting as key transmitters of uncertainty. Third, we examine cross-border spillovers to major trade and financial partners: the United States, China, and Spain. Using bilateral structural BVAR specifications, we find that Latin American uncertainty shocks affect equity markets, GDP growth, bank claims, and foreign direct investment in these partner economies. Spain stands out as particularly exposed.

These results align with prior findings on the macroeconomic effects of uncertainty for selected Latin American economies and expand upon them by providing a comprehensive analysis for the region (e.g., Cekin et al. (2020), Ghirelli, Pérez, and Urtasun (2021), Aytaç and Saraç (2022), Marín-Rodríguez, González-Ruíz, and Botero (2025)).

The rest of the paper is organized as follows. Section 2 details the construction of the EPU indices. Section 3 estimates the direct macro-financial effects of uncertainty shocks on the region. In Sections 4 and 5, we analyze regional spillovers and the effects on main financial and trade partners. Section 6 provides the robustness analysis. Sections 7 and 8 conclude with policy implications and avenues for future research.

2 Construction of EPU indices

Building on the methodology of Ghirelli, Pérez, and Urtasun (2021) and Andres-Escayola et al.(2024a),we expand the coverage of EPU indicators to include Bolivia, Ecuador, Paraguay, Uruguay, and Venezuela. These indices are constructed using a harmonized keyword list and a consistent approach across countries.[1]

Articles are retrieved from the Dow Jones Factiva database, drawing from high-circulation local newspapers and international sources in Spanish and English (see Table 1). Keywords are adapted to local linguistic contexts (Spanish, Portuguese for Brazil, and English) to ensure consistency and broad media representation. Appendix A provides the full keyword lists in Spanish and Portuguese.

To ensure relevance, we filter out articles unrelated to economic or political content (e.g., sports or entertainment) and restrict attention to country-specific coverage. The keyword blocks used are detailed in Table 2.

The construction of the EPU indices follows a standard procedure. For each newspaper, we compute the monthly share of articles containing keywords, relative to the total number of articles published. For foreign sources and wire agencies, the denominator is restricted to country-specific articles by applying the region filter in Factiva.[2]

Each monthly series is standardized by its own standard deviation to normalize volatility across newspapers. We then average the standardized series across newspapers to obtain a country-level index, rescaled to a mean of 100. A regional EPU index is computed as the simple average of the 11 country indices.

Figure 1 displays the resulting indices aggregated for the Latin American region. Appendix B provides narrative validation and event analysis, confirming the indices' alignment with major episodes of economic and political uncertainty.

[1]The indices are available on Banco de España's website. Banco de España also elaborates EPU indices for Central America and the Dominican Republic, published regularly on this website.

[2]This adjustment ensures comparability across sources with varying geographic focus.

Table 1: Local and foreign newspapers

Category	Newspapers
Local press	**Argentina**: *Clarín, La Nación, Infobae* **Brasil**: *O Globo, Folha de São Paulo, O Estado de São Paulo, Correio Braziliense, Estado de Minas, Agência Brasil* **Chile**: *El Mercurio, La Tercera, El Diario Financiero, Pulso* **Colombia**: *El Espectador, El Nuevo Siglo, Portafolio* **México**: *Reforma, El Universal, La Jornada, El Financiero, El Economista, Agencia Mexicana de Noticias* **Perú**: *El Comercio, La República, Gestión, Agencia Andina* **Bolivia**: *Opinión, La Razón, Los Tiempos* **Ecuador**: *El Comercio, El Diario, Metro* **Paraguay**: *ABC Paraguay, Agencia Paraguaya de Noticias, Última Hora* **Uruguay**: *El País Uruguay, La República* **Venezuela**: *El Universal, Tal Cual, Últimas Noticias*
Foreign press	**Spanish**: *El País, El Mundo, Expansión, ABC, Cinco Días, El Economista, La Vanguardia* **English**: *Los Angeles Times, The Boston Globe, The Globe and Mail, The New York Times, The Telegraph, The Times, Chicago Tribune, The Guardian, The Wall Street Journal, The Washington Post, The Economist*
News wire agencies	**Uruguay, Paraguay and Bolivia**:*Corporación Financiera de Noticias and Reuters América Latina*

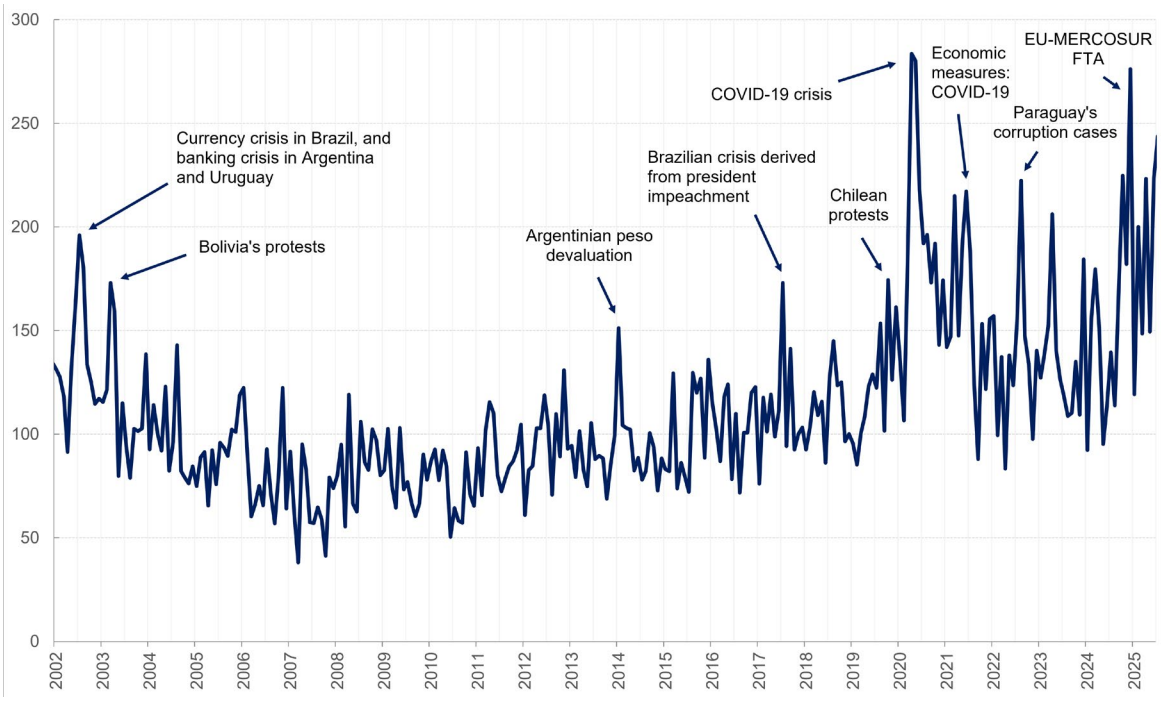
Table 2: Key Categories and Associated Terms

Category	Terms
Uncertainty	uncertain, uncertainty/uncertainties, unstable, instability/instabilities, risk(s)
Economy	economic(s), economy
Policy	*central bank name, government headquarters*, parliament, government, federal reserve, treasury, tariff(s), deficit(s), budget(s), public spending, debt ceiling, exchange rate(s), currency crash(es), sovereign debt, public debt, fiscal/monetary policy, legislation, reform(s), tax(es), regulation(s), law(s), rule(s), norm(s), overhaul

3 Domestic effects in the region as a whole

To gauge the direct effects of EPU on the region, we set up a panel version of a structural BVAR. We estimate the panel as a pool, meaning that we measure the average effects on the region by assuming that all countries are sufficiently homogeneous (Gadea Rivas and Perez-Quiros (2015)).

Figure 1: EPU indices for the aggregate of the 11 Latin American countries



Note: EPU indices are based on local, Spanish, and Anglophone press; Bolivia, Paraguay, and Uruguay also include news wire agencies. The Latin American aggregate is a simple average of the 11 indices.

Each country $i = 1, ..., N$ has a set of endogenous variables $k = 1, ..., K$ for each period $t = 1, ..., T$, denoted $y_{i,k,t}$. To simplify notation, we stack the endogenous variables in a $K \times 1$ vector for each country and period as $y_{i,t}$. Additionally, we include a $M \times 1$ vector of exogenous control variables x_t that are common to all countries. The p-th lagged panel BVAR is then:

$$B_{i,0}y_{i,t} = \sum_{s=1}^{N}\sum_{j=1}^{p} B_{i,s,j}y_{s,t-j} + D_i x_t + \eta_{i,t}, \quad \eta_{i,t} \sim \mathcal{N}(0, \Omega_i). \tag{1}$$

The matrices $B_{i,0}, \{B_{i,s,j}\}_{j=1}^{p}, D_i$ englobe the coefficients with appropriate dimensions. $\eta_{i,t}$ are the zero-mean reduced-form errors with covariance matrix Ω_i. In our case, the pooled panel estimation simplifies the model significantly. It implies that there is no country indexation in the coefficient matrices as they are homogeneous across units. Further, the coefficient matrices become diagonal matrices as each country is only determined by its own variables and is independent of the other units. The same applies to the structure of the errors and the corresponding covariance matrix.

In essence, it is as if we are running individual BVAR models with a dataset coming from multiple countries. In this way, the result can be interpreted as the effects for a "representative country". Under this assumption, the model becomes a system of country-specific BVARs:

$$\begin{aligned} B_{1,0}y_{1,t} &= \sum_{j=1}^{p} B_{1,j}y_{1,t-j} + D_1 x_t + \eta_{1,t}, \\ B_{2,0}y_{2,t} &= \sum_{j=1}^{p} B_{2,j}y_{2,t-j} + D_2 x_t + \eta_{2,t}, \\ &\vdots \\ B_{N,0}y_{N,t} &= \sum_{j=1}^{p} B_{N,j}y_{N,t-j} + D_N x_t + \eta_{N,t}. \end{aligned} \tag{2}$$

We identify an uncertainty shock by imposing short-term exclusion restrictions on the contemporaneous matrix B_0, where we order the EPU first in the system. Following the literature, we focus solely on the impact of an uncertainty shock proxied by the EPU on other variables, without making assumptions about a causal chain within the imposed recursive ordering of Cholesky's factorization. The model includes 4 lags, and the prior is a standard Normal-Wishart prior commonly used in the literature.[3]

We include several domestic variables to estimate the effects of uncertainty shocks. Our variables of interest are non-residential and residential portfolio capital flows, bilateral exchange rates vis-à-vis the USD, the EMBI as a measure of sovereign risk and the cost of external debt, FDI, and real GDP. We also add 4 global variables to control for external factors, namely, the VIX to proxy volatility in global financial markets, a commodity price index, and industrial production from the U.S. and China, given their strong trade links with the region. Accordingly, for each country i, we would have a corresponding equation from the system 2 with $y_{i,t} = [EPU_{i,t}, PCFNR_{i,t}, FX_{i,t}, EMBI_{i,t}, PCFR_{i,t}, FDI_{i,t}, GDP_{i,t}]'$ and common global variables $x_t = [VIX_t, COM_t, IPUS_t, IPCN_t]'$. We provide a summary of the variables used for the model in Table 3, and further details in Appendix C.

[3] This version of the panel VAR is standard and we refer to Canova and Ciccarelli (2013) for details on the specification and Bayesian estimation procedure.

Table 3: Model variables for Latin American panel BVAR

Type	Mnemonic	Short description	Unit
Control	VIX	S&P500 equity volatility index	Level
Control	COM	Commodity price index	Level
Control	IPUS	Industrial production for USA	QoQ%
Control	IPCN	Industrial production for CHN	QoQ%
Impulse	EPU	Economic policy uncertainty	Level
Response	PCFNR	Non-residential portfolio capital flows	% of GDP
Response	FX	Bilateral exchange rate wrt USD	QoQ%
Response	EMBI	Emerging markets bond index	Index
Response	PCFR	Residential portfolio capital flows	% of GDP
Response	FDI	Foreign direct invesment	% of GDP
Response	GDP	Real GDP	QoQ%

Using the described panel model, we estimate impulse response functions (IRFs) for each relevant domestic variable to uncertainty shocks in the region using quarterly data ranging from 2000Q1[4] to 2024Q1. The estimated dynamic effects are presented in Figure 2.

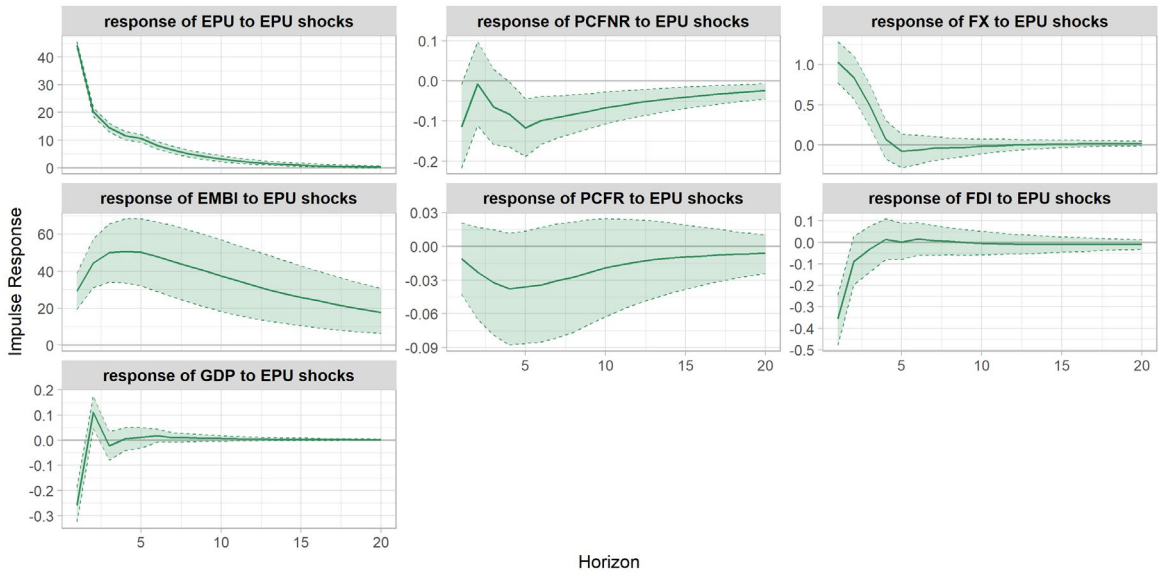
A 1 standard deviation uncertainty shock[5] leads to non-residential portfolio capital outflows of around 0.1 percentage points (pp) after 1 year.[6] Furthermore, the exchange rate shows a sharp depreciation against the USD (1 pp on impact) and external financing conditions, proxied by the sovereign spread (i.e., EMBI), tighten with an increase of 30–50 basis points after a few quarters. We also observe that foreign direct investment declines on impact up to 0.36 pp. Finally, uncertainty shocks have a toll on real activity, marked by a decrease in growth of up to 0.26 pp on impact. These baseline empirical estimates are aligned with the expected economic rationale. Higher instability in the region leads to stronger risk aversion in financial markets and foreign investors, who rebalance their portfolio investments. Local currency depreciates, consequently, and there is a higher perception of sovereign risk. These circumstances also deter longer-term investment and business in the region, which ultimately slows

[4]Besides having the EPU indices since 1997, we start our estimation sample in 2000 due to restricted data availability of macrofinancial variables in some Latin American countries. This also implies that for the panel estimates, we exclude Bolivia, Paraguay, and Venezuela.

[5]The 1 standard deviation translates to a change of 44 EPU index points. Such an increase corresponds to medium-scale changes in uncertainty, as larger fluctuations that relate to historical episodes in the region tend to be of 50 points or larger (see Figure 1).

[6]We do not find any significant effect on portfolio capital flows of residents. That is, whilst the response is negative, which could tentatively indicate an episode of capital flight, the effects are not statistically significant.

Figure 2: IRFs of Latin American macrofinancial variables to regional uncertainty shocks



Note: The panel of charts show the impulse response functions of each variable to a one standard deviation uncertainty shock proxied by the EPU index. The effects are estimated with a panel BVAR using quarterly data (2000Q1-2024Q1). The model variables are described in Table 3. Credible bands are reported at 68%–32% and horizon refers to quarters.

growth.

4 Spillovers within the region

We turn to estimating regional EPU spillovers in Latin America. We start with computing total and directional spillover metrics using only the EPU indices.

For that, we estimate a monthly VAR with the 11 EPU indices[7] and compute the generalized forecast error variance shares (FEVD) as in Diebold and Yilmaz (2012). The p-th lagged reduced-form VAR model[8] is defined as:

$$z_t = \sum_{j=1}^{p} A_j z_{t-j} + u_t, \quad u_t \sim \mathcal{N}(0, \Sigma). \tag{3}$$

$z_t = [EPU_{ARG,t}, EPU_{BRA,t}, ..., EPU_{VEN,t}]'$ denotes the $N \times 1$ vector of EPU indices

[7]Since we only use the EPU indices, we can exploit the full time sample between January 1997 and October 2025.

[8]We first-difference the EPU indices to make the model covariance stationary, include 12 lags based on Akaike's information criterion, and estimate the model with classical methods.

with corresponding autoregressive coefficients in matrices $\{A_j\}_{j=1}^{p}$. The error term u_t is an $N \times 1$ zero-mean Gaussian random variable with Σ error covariance matrix. Next, we follow Diebold and Yilmaz (2012) and construct the H-step-ahead FEVD, which is based on the IRFs of the estimated model 3. For each EPU index, we can decompose its forecast error variance into contributions of own disturbances (country i) and the effects from other EPUs (country s, with $i \neq s$). In this way, we can assess the extent to which other countries' EPUs affect the EPU forecast error volatility of a particular country, therefore, capturing how uncertainty is transmitted within the region. The authors argue that the estimated FEVD is a measure of directional spillovers, and it is defined as:

$$\theta_{i,s}(H) = \frac{\frac{1}{\sigma_{i,i}} \sum_{h=0}^{H-1} (e_i' A_h \Sigma e_s)^2}{\sum_{h=0}^{H-1} (e_i' A_h \Sigma A_h')},$$
$$\tilde{\theta}_{i,s(H)} = \frac{\theta_{i,s}(H)}{\sum_{s=1}^{N} \theta_{i,s}(H)}. \tag{4}$$

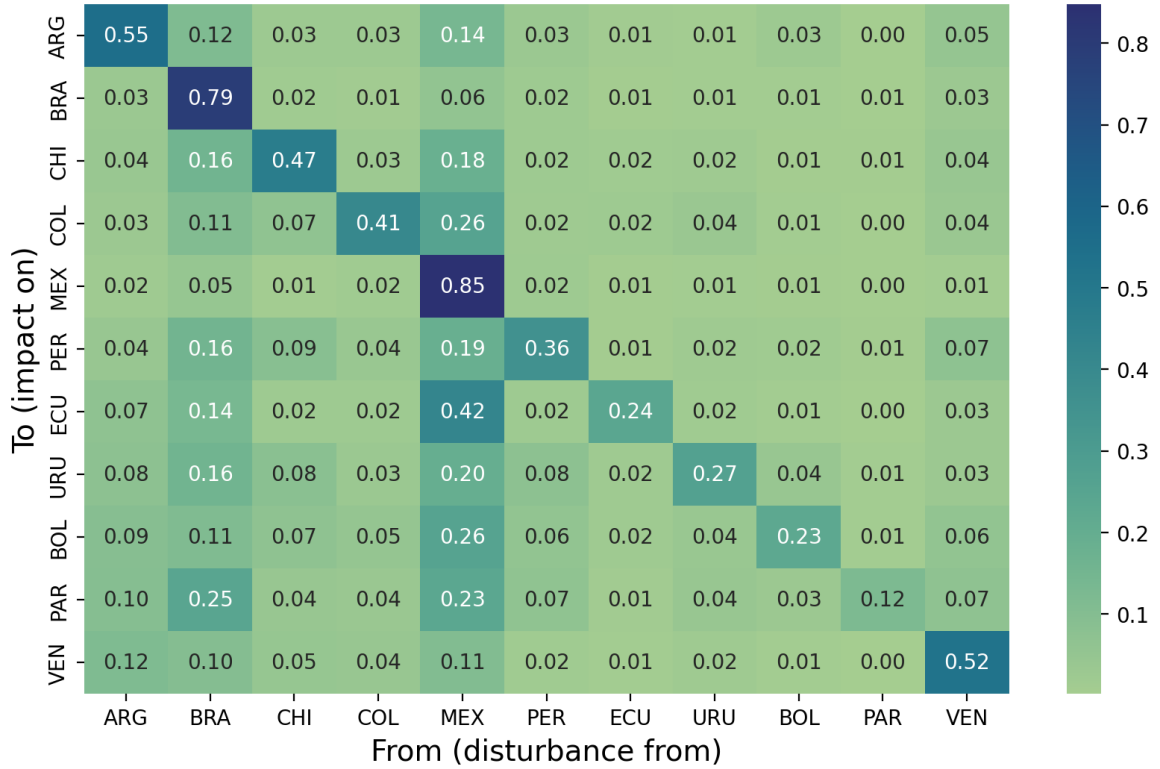
Σ is the covariance matrix of the error term in the VAR model and $\sigma_{i,i}$ is the standard deviation of the error term for country i. e_i is a selection vector with a 1 in the i-th element and zero otherwise. The second expression is the normalized version of the FEVD such that the shares sum up to 1.[9]

The estimation results of these spillovers are summarized in a heatmap in Figure 3. By reading the heatmap from the bottom up and to the left, we can trace the direction of spillover effects. The diagonal values correspond to the FEVD share of own disturbances, and the off-diagonal values to the spillovers from other countries. For example, Mexico, which appears darker in the heatmap, significantly influences other countries. The last row of Mexico's column shows that 11% of Venezuela's EPU forecast error variance is driven by Mexico's EPU. Similarly, by summing over the columns of a particular row, one can disentangle the contributions of the FEVD for that country (i.e., it sums up to 1). Upon inspection, Mexico and Brazil exert the

[9] Given this methodology is well established, we refer to Diebold and Yilmaz (2012) for further details.

strongest influence on the EPU variance of other countries in the region, as indicated by the darker green shades in their respective columns.

Figure 3: EPU spillover heatmap



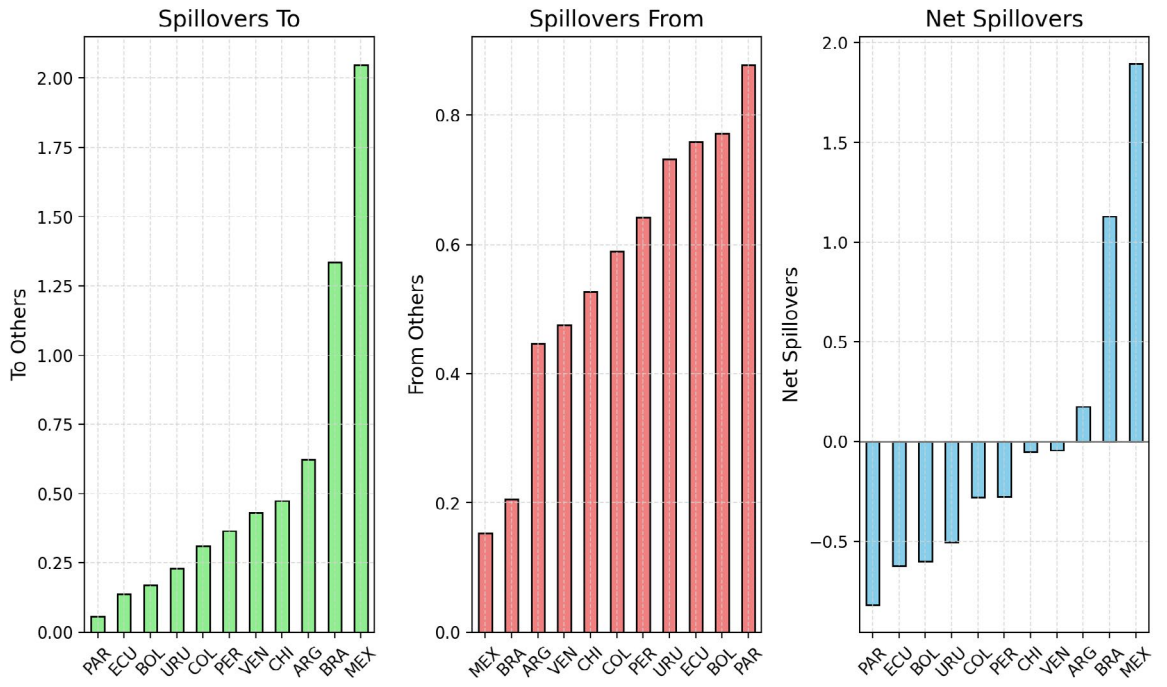
Note: The heatmap shows the FEVD contributions of EPUs in Latin America. Darker-colored cells indicate higher spillover effects in terms of explaining a larger share of the EPU's forecast error variance. For each country, row values indicate by how much the forecast error variance of the index is explained by EPU disturbances from countries in the columns. Hence, diagonal cells represent the effects of a country's own EPU disturbance, whilst off-diagonal cells capture the spillover effects from other countries.

To further single out the effects, we present the same results as bar charts in Figure 4. The green bars rank countries by the total spillovers they transmit to others, calculated by summing up their column values from the heatmap (excluding the diagonal elements). The red bars capture the total spillover effects a country receives from others; that is, we sum up the row values (excluding the diagonal). Lastly, the blue bars represent the difference between the previous two, indicating whether a country is a net transmitter or receiver of spillovers. The exact values for each country are shown in Table 4. Once again, Mexico and Brazil emerge as the primary sources of EPU spillovers, followed to a minor extent by Argentina. Conversely, Paraguay and

Bolivia are the most affected by external EPU disturbances. Notice that these metrics are measures of interconnectedness and do not correspond to effects from identified structural uncertainty shocks. They provide a descriptive overview of how related EPUs are in the region and which countries drive the volatility of such uncertainty.

As an overall summary of interconnectedness, we compute the total spillover index as in Diebold and Yilmaz (2012). Calculated at nearly 60%, it highlights a strong interdependence of EPUs across the region. This value suggests that a significant portion of the EPUs' variance is influenced by cross-country linkages rather than being purely explained by own disturbances.

Figure 4: EPU spillovers by country



Note: The 3 barplots depict the country-specific directional EPU spillovers. The first graph describe the spillovers generated by each country to third countries. In turn, the second chart shows the received spillovers from other countries. The last chart computes the difference between the preceding bars to indicate if a country is a net generator or receiver of EPU spillovers.

Table 4: Spillovers table

Country	**ARG**	**BRA**	**CHI**	**COL**	**MEX**	**PER**	**ECU**	**URU**	**BOL**	**PAR**	**VEN**
To	0.62	1.33	0.47	0.31	2.05	0.36	0.14	0.23	0.17	0.06	0.43
From	0.45	0.21	0.53	0.59	0.15	0.64	0.76	0.73	0.77	0.88	0.48
Net	0.18	1.13	-0.05	-0.28	1.90	-0.28	-0.62	-0.50	-0.60	-0.82	-0.04

Given that Brazil and Mexico stand out as the countries that generate the most spillovers within the region, we expand the analysis for these countries. To this end, we estimate structural BVAR models that include the EPU of Brazil or Mexico as the impulse variable, and the EPU and real GDP of the rest of the countries in the region as the response variables. Additionally, to control for other confounding factors between countries in the region, we include the same 4 global variables of the panel specification, and exchange rates and FDI as country-specific controls. So we are estimating again a quarterly BVAR model including macro-financial variables, and we adopt the same identification strategy for structural uncertainty shocks.[10] As commonly done in the literature for time-series BVARs, we specify a Minnesota-type prior with standard hyperparameters. The exercise consists of running the model for Brazil or Mexico, where we interchange the other Latin American countries receiving the spillovers. For example, we would estimate a BVAR model with the Brazilian EPU as the impulse, the EPU and real GDP from Argentina as response variables, as well as the other corresponding controls. In particular, taking one of the BVAR representations from the system 2, we would have $y_{q,s,t} = [EPU_{q,t}, EPU_{s,t}, FX_{s,t}, FDI_{s,t}, GDP_{s,t}]'$ with $q \in \{BRA, MEX\}$ and s being any of the other Latin American countries with $q \neq s$, and global variables $x_t = [VIX_t, COM_t, IPUS_t, IPCN_t]'$. We then repeat the procedure for the rest of the countries, and the model variables are described in Table 5.

Table 5: Model variables for Brazilian/Mexican spillovers BVAR

Type	Mnemonic	Short description	Unit
Control	VIX	S&P500 equity volatility index	Level
Control	COM	Commodity price index	Level
Control	IPUS	Industrial production for USA	QoQ%
Control	IPCN	Industrial production for CHN	QoQ%
Control	FX_RLAT	Bilateral exchange rate wrt USD for rest of LATAM	QoQ%
Control	FDI_RLAT	Foreign direct invesment for rest of LATAM	% of GDP
Impulse	EPU_BRA/MEX	Economic policy uncertainty for Brazil or Mexico	Level
Response	EPU_RLAT	Economic policy uncertainty for rest of LATAM	Level
Response	GDP_RLAT	Real GDP for rest of LATAM	QoQ%

We summarize the results by directly comparing the IRFs of EPU and GDP growth to uncertainty shocks in Brazil and Mexico in Figure 5–6. The EPU IRFs of the rest

[10] Since we turn to a quarterly specification with macro-financial variables, the estimation period is again 2000Q1–2024Q1 with 4 lags.

of Latin American countries are more pronounced for EPU shocks of Brazil, with the majority of contemporaneous impact effects ranging from 5–10 index points, and Paraguay exerting more pronounced effects. This latter effect aligns with the findings from the previous analysis, where Paraguay also emerged as the economy receiving the highest net directional spillovers in terms of FEVD, likely due to both countries' membership in Mercosur, and to the latter being a commodity exporter and a small open economy. For the case of Mexico, the EPU responses range lower between 2.5–5 index points.[11] For the case of GDP growth, the responses are mostly negative and similar in size (between 0.2 pp–0.6 pp), irrespective of the spillovers stemming from Brazil or Mexico.

The findings indicate that EPUs in Latin America are highly interlinked, with Brazil and Mexico playing central roles. When uncertainty rises in either country, it tends to increase EPU levels across the region and hinder economic growth.

5 Spillovers on main trade and financial partners

Periods of acute or persistent regional uncertainty can exert adverse effects on the economic variables of the region itself, as well as on those nations with significant economic exposure to the region. We study the effects of uncertainty shocks of Latin America on the main trade and financial partners of Latin America, namely, the U.S., China, and Spain. Since Spain is among the most exposed economies to the region, we provide a special focus on that economy for the sake of brevity, as results might likely be more clear-cut. [12]

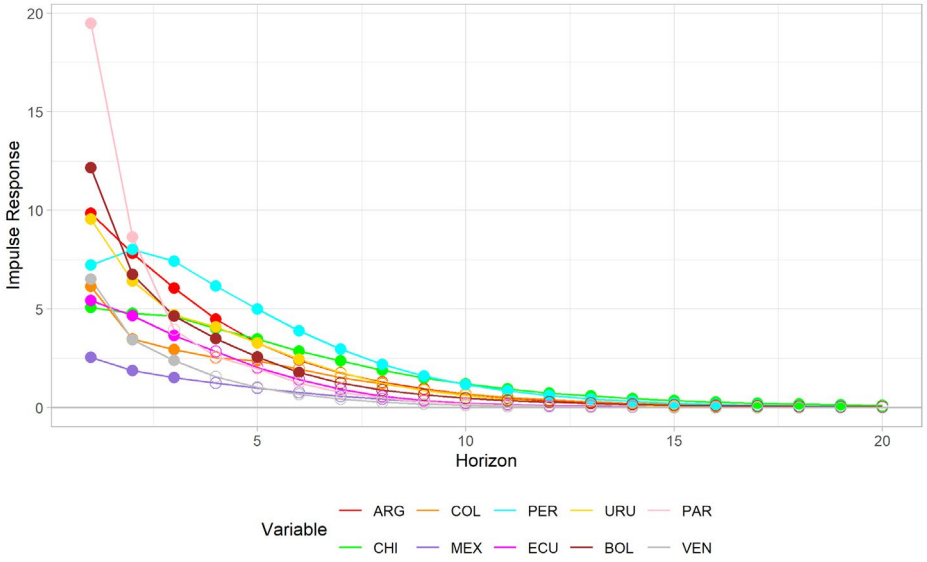
We capture spillover effects to third countries using a structural BVAR model with bilateral variables. Since we are interested in estimating the uncertainty shock effects of the entire Latin American region, we aggregate individual EPU indices to a single average measure for the region. The bilateral specification is in terms of having

[11] For Chile and Ecuador, the effects appear to be negative but only statistically significant for a few periods.

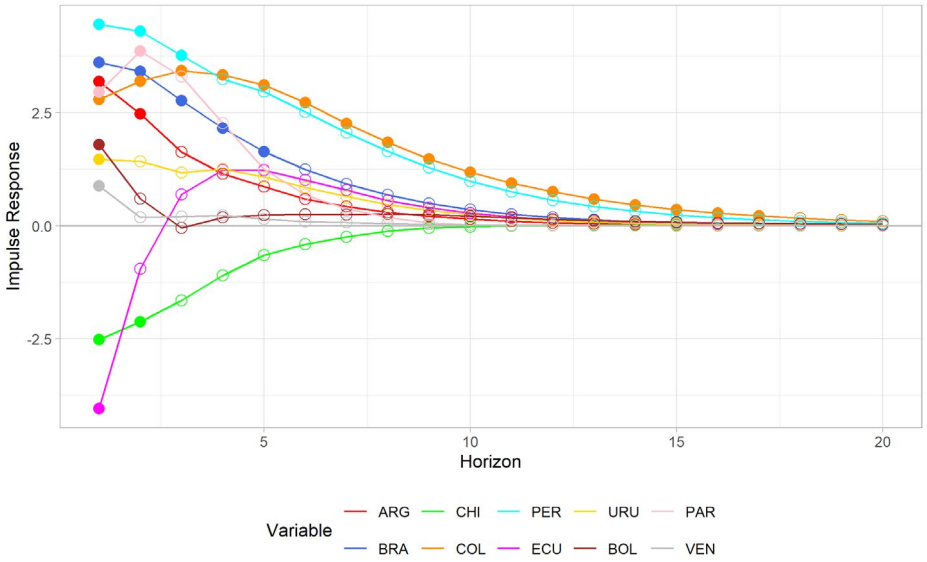
[12] See Andres-Escayola et al. (2023) for the significant exposure of the Spanish economy to the economies of Latin America.

Figure 5: Spillovers of uncertainty shocks in Brazil/Mexico on EPU of other Latin American countries

(a) Brazil



(b) Mexico



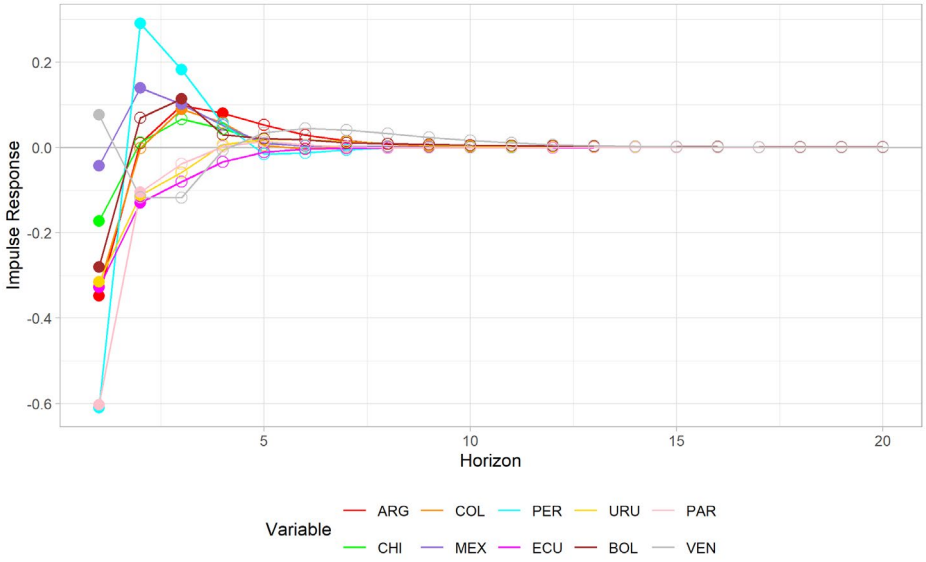
Note: The panel of charts show the impulse response functions of each variable to a one standard deviation uncertainty shock proxied by the EPU index. The effects are estimated with a BVAR using quarterly data (2000Q1-2024Q1). The model variables are described in Table 5. Credible bands are reported at 68%–32% and filled circles indicate statistical significance for the specific horizon. Horizon refers to quarters.

variables for Latin America and variables corresponding to the country receiving the spillovers (i.e., Spain, the U.S., or China).

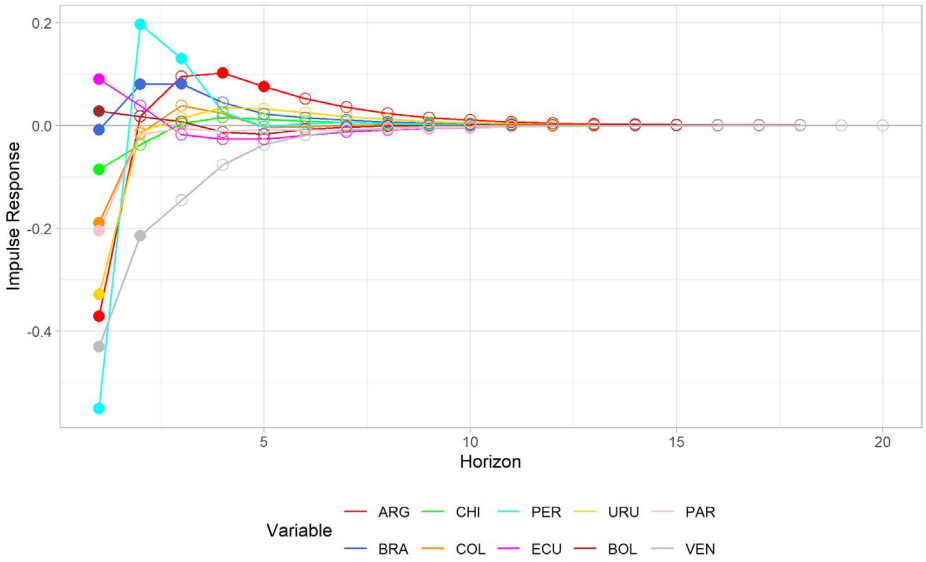
The model setup is similar to the BVARs from before in terms of structural identifi-

Figure 6: Spillovers of uncertainty shocks in Brazil/Mexico on GDP of other Latin American countries

(a) Brazil



(b) Mexico



Note: The panel of charts show the impulse response functions of each variable to a one standard deviation uncertainty shock proxied by the EPU index. The effects are estimated with a BVAR using quarterly data (2000Q1-2024Q1). The model variables are described in Table 5. Credible bands are reported at 68%–32% and filled circles indicate statistical significance for the specific horizon. Horizon refers to quarters.

cation and specification,[13] yet we now have some response variables that correspond to bilateral relations and which are interchanged each time. We again introduce a series of global controls, in this case the VIX, a commodity price index, and a global activity

[13]We have quarterly data between 2000Q1–2024Q1, 4 lags, and standard Minnesota priors.

index stacked in $x_t = [VIX_t, COM_t, ACT_t]'$. Then, we have Latin American variables that are aggregated, such as the EPU index that we use to identify the uncertainty shock, and a weighted average of real GDP as a control. We also include controls of the country receiver of spillovers, such as a regional equity index, the country's EPU index, a measure of long-term bond yields or sovereign risk, consumer prices and real GDP. We also add the exchange rate of the Latin American aggregate, weighted by each country's share in the total exports and imports of the spillover recipient.

Lastly, we define a set of response variables used to measure spillover effects and exchanged in each case. These variables include equity prices, used as an indicator of financial spillovers, real GDP serving as control and response, cross-border bank claims of national banks in Latin American countries, and bilateral foreign direct investment flows between the spillover-receiving country and Latin America, capturing potential investment deterrence. Accordingly, the vector of endogenous variables is $y_{l,m,t} = [w'_{l,t}, v'_{m,t}, c'_{l,m,t}]'$, with l denoting the index for the Latin American region and $m \in \{ESP, USA, CHN\}$. Further, $w_{l,t} = [EPU_{l,t}, GDP_{l,t}]'$ collects the impulse and Latin American control, $v_{m,t} = [EQT\_REG_{m,t}, EPU_{m,t}, SPR_{m,t}, INF_{m,t}, GDP_{m,t}, FX_{m,t}]'$ is the set of control variables for country m, and $c_{l,m,t} = [EQT_{m,t}, BCL_{m,t}, FDI_{l,t}, FDI_{m,t}]'$ are the bilateral response variables that are interchanged.[14]

Unfortunately, China's inclusion is limited to the specifications with the equity prices and real GDP, as data for the other specifications is incomplete for a robust empirical analysis. A summary of the variables for Spain is in Table 6, whilst the list of variables for the U.S. and China, as well as details on data sources, are described in Appendix C.

The spillover effects to Spain are presented in Figure 7, and we discuss the cross-border impact on each variable. First, a surge in uncertainty of 1 standard deviation in Latin America[15] triggers a sell-off in equity markets in Spain. Both the Latibex,

[14] Notice the difference in the subscript for FDI variables, which refers to the bilateral flows. This means that $FDI_{l,t}$ corresponds to FDI flows from Latin America to the partner and $FDI_{m,t}$ the opposite.

[15] 1 standard deviation of the aggregated regional EPU corresponds to 20 index points. Most of

Table 6: Model variables for Spanish spillovers BVAR

Type	Mnemonic	Short description	Unit
Control	VIX_GLO	S&P500 equity volatility index	Level
Control	COM_GLO	Commodity price index	Level
Control	ACT_GLO	Activity index	QoQ%
Control	EQT_REG_EUR	Eurostoxx50 equity index	QoQ%
Control	GDP_LAT	Real GDP for LATAM countries	QoQ%
Control	EPU_ESP	Economic policy uncertainty for Spain	Level
Control	SPR_ESP	Spread between 10y Spanish and German bond yields	Percentage points
Control	FXESP_LAT	Bilateral exchange rate between LATAM countries and Spain	QoQ%
Control	INF_ESP	CPI for Spain	QoQ%
Impulse	EPU_LAT	Economic policy uncertainty for LATAM countries	Level
Response	EQTLAT_ESP	Latibex equity index	QoQ%
Response	EQT_ESP	Ibex35 equity index	QoQ%
Response/Control	GDP_ESP	Real GDP for Spain	QoQ%
Response	BCL_ESP	Domestic bank claims of Spain on LATAM countries	% of GDP
Response	FDILAT_ESP	Foreign direct investment from LATAM to Spain	% of GDP
Response	FDIESP_LAT	Foreign direct investment from Spain to LATAM countries	% of GDP

the only international market for Latin American securities (traded in euros), and the Spanish benchmark equity price index drop significantly. The effects are more pronounced in the former (–4 pp on impact) than in the latter, which includes both Spanish firms with interest in the region and others companies (–2 pp on impact).

Then, it appears that the effects on financial variables pass on to real activity in Spain, where real GDP growth decreases by up to 0.5 pp for a short time. This result suggests that foreign uncertainty shocks can have ripple effects on the real side of the economy whenever the surge in uncertainty stems from relevant trade and financial partners.

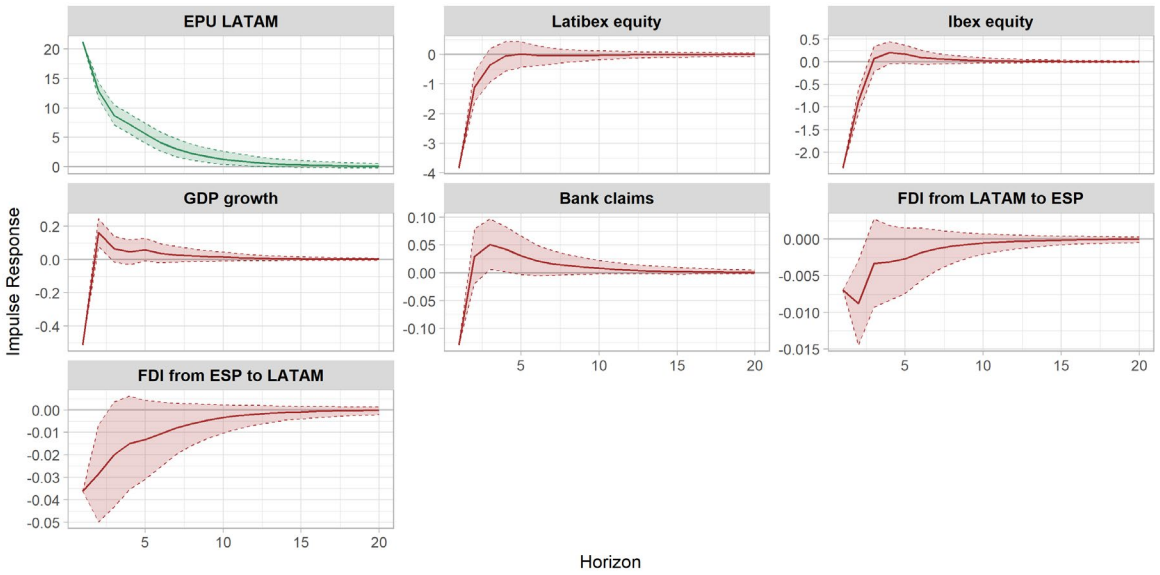
We further highlight spillover effects between countries with close financial ties by looking into consolidated total bank claims of Spanish banks with residents in Latin America. This includes loans granted by Spanish international banks to firms, households and the public sector in the region.[16] Latin American uncertainty shocks lead to a pronounced decline in Spanish bank claims, amounting to 0.11 pp.

Finally, we examine bilateral FDI flows between Spain and Latin America. Latin American investments into Spain decline in response to heightened regional uncertainty, though the magnitude of the effect is somewhat smaller than the effects of Spanish FDI into Latin America (decreases of around 0.01 pp vs 0.04 pp, respectively).

the historical events highlighted in Figure 1 correspond to a spike in the EPU of this magnitude or higher.

[16] This variable does not include domestic positions, that is, the operation of Spanish banks' subsidiaries in the region, such as Santander Brazil.

Figure 7: IRFs of Spanish macrofinancial variables to uncertainty shocks in Latin America



Note: The panel of charts show the impulse response functions of each variable to a one standard deviation uncertainty shock proxied by the EPU index. The effects are estimated with a BVAR using quarterly data (2000Q1-2024Q1). The model variables are described in Table C.3. Credible bands are reported at 68%–32% and horizon refers to quarters.

This could be interpreted as a retrenchment effect, where domestic investors offset the reduced inflow of FDI following an increase in economic uncertainty. Another explanation might be that increased economic uncertainty discourages FDI outflows from the region, potentially due to factors such as capital control regulations, expropriation risks, or similar constraints.

We carry out similar exercises for the U.S. and China shown in Figure 8. The qualitative effects are broadly similar to the ones discussed above for Spain, but the magnitudes differ. In particular, in all cases, the estimated spillovers on Spain are more pronounced. For instance, the impact on the Spanish equity index is between 4 to 6 times higher than the effect observed in the U.S. Meanwhile, the effect on Chinese stocks is even smaller as it barely surpasses –0.2 pp on impact. The effects on real activity are also more negative for Spain than the other two countries (–0.5 pp). The effect on the U.S. is around half in magnitude, and the effect on China is negligible. Such differences in equity and activity reflect Spain's deep financial ties to the Latin American region, as well as the smaller size of its economy compared to China and

the U.S.

When looking more specifically at variables directly linking Latin America to the spillover receiver, we observe again that Spanish loans to the region fall by almost 5 times more than U.S. bank claims. In terms of direct investment, FDI from Latin America to Spain decreases much more than to the U.S. Similarly, Spanish FDI to Latin America decreases much more than FDI flows from the U.S. when facing the same uncertainty shock.

This higher sensitivity could be explained by the depth of Spain's financial and economic ties with the region. Looking at aggregate numbers in 2024 and according to IMF, BIS and national statistics, Latin America accounts for 22% of total Spanish outward FDI, –4.2% for the U.S.; Spanish inward FDI from the region represents 3%, –0.9% for the U.S.; 27% of total international claims of Spanish banks, –5.6% in the U.S. Only in the field of international trade Spain falls behind the U.S. and China, with 5% of exports and imports directed to or originating from the region, compared to 20% for the U.S. and 8% for China.

6 Robustness analysis

We conduct a battery of robustness checks based on modelling choices for the different empirical results. For the panel estimates of the EPU shocks on the Latin American region as a whole, we change the lag order of the quarterly BVAR model from 4 lags to 1 lag or 8 lags. Results are documented in Figure D.1 and they show that the lag order choice does not affect the effects. Only the EMBI response for the model with 8 lags shows a more contained effect than in the baseline. Another check we do is changing the estimation sample. We either start in 2005 (instead of 2000) or end the estimation before the Covid-19 pandemic (i.e., 2019Q4). As shown in Figure D.2, the responses are broadly the same as in the baseline case. Interestingly, when excluding the Covid-19 period, the effects for non-residential portfolio capital flows and for the EMBI are relatively more pronounced.

Further, we do these two modelling changes for the directional spillover estimations. That is, we rerun the monthly VAR model with the Latin American EPUs for the FEVD using fewer and more lags than the baseline (12 lags) and a shorter time sample than the baseline (1997–2025). Figure D.3 compares the lag choice of 6 and 24 lags, and Figure D.4 compares the estimation sample starting in 2005 or excluding the Covid-19 period. In all the alternative choices, the message remains the same: Mexico and Brazil generate the most net spillovers, and the effects are substantially higher than in any other Latin American country. It is worth mentioning that, depending on some of the specifications, Brazil ranks higher than Mexico, and vice versa.

Lastly, we adapt the quarterly BVAR spillover model used to estimate the EPU shock effects in Latin America on Spain, as it is our benchmark trade and financial partner for the region. We restrict our discussion to the responses to equity prices and GDP growth. As before, we conduct the estimations with different lags and sample periods. These are in Figures D.5–D.6, and the results are very similar to the baseline. Additionally, we also try different priors, such as using the Normal-Wishart distribution and being more agnostic by using a Normal-diffuse prior. Figure D.7 confirms that the prior choice does not influence the results. As a final check, we also run the model without any control, meaning we would only include the impulse and corresponding response variable shown in Table 6. In that case, the results are still similar to the baseline (Figure D.8).

7 Policy implications

The findings from this study, together with spatial evidence from Adjei, Tweneboah, and Owusu Junior (2025), suggest that economic policy uncertainty is not only a domestic phenomenon but also spatially interconnected across EMEs. We provide empirical evidence for the case of Latin America and this has implications for both national and regional policy frameworks.

Regional interdependence implies that spatial autocorrelation can transmit EPU

shocks across borders, particularly among countries with strong trade or financial linkages. In such settings, policymakers may benefit from closely monitoring developments in partner economies in order to anticipate and mitigate indirect effects.

Clear and timely communication of policy decisions also plays a critical role in limiting uncertainty spillovers. Although full policy coordination may be unrealistic, informal channels for dialogue among regional partners could nonetheless strengthen collective resilience and reduce the propagation of uncertainty across borders.

For investors and regulators, awareness of spatial patterns in EPUs can inform strategies aimed at diversification and risk management. In particular, regions characterized by negative spatial autocorrelation may represent comparatively safer investment environments during periods of elevated uncertainty, thereby guiding both portfolio allocation and macroprudential oversight.

Finally, the heterogeneity observed across countries and regions underscores the need for tailored policy responses to uncertainty shocks. Effective management of uncertainty requires careful consideration of local economic structures, institutional capacities, and exposure to external shocks, as uniform or standardized approaches are unlikely to produce optimal results.

These considerations underscore the importance of integrating spatial dynamics into economic policy analysis, especially in regions with high degrees of connectivity.

8 Conclusion

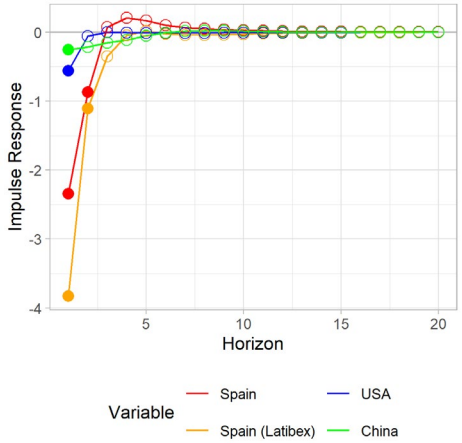
In an increasingly interconnected global economy, understanding the dynamics of economic policy uncertainty is essential for effective macroeconomic and financial policymaking. This paper provides robust evidence that uncertainty shocks in Latin America have significant domestic effects: lower GDP growth, deterring of capital inflows, and increasing external financing costs. Moreover, EPU is not confined within national borders: Brazil and Mexico emerge as key regional transmitters of spillovers, with their uncertainty shocks driving EPUs in the rest of Latin American countries and

weighing on their GDP growth.

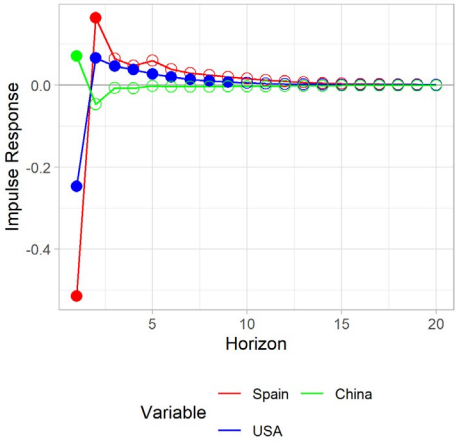
Importantly, the spillover effects extend beyond Latin America, with Spain showing particularly high sensitivity due to its deep financial and investment ties with the region. These findings underscore the need for policymakers in both Latin America and its partner economies to monitor uncertainty indicators closely and to incorporate uncertainty spillovers into their risk assessments and strategic planning.

Figure 8: Spillovers of uncertainty shocks in Latin America to Spain, the U.S., and China

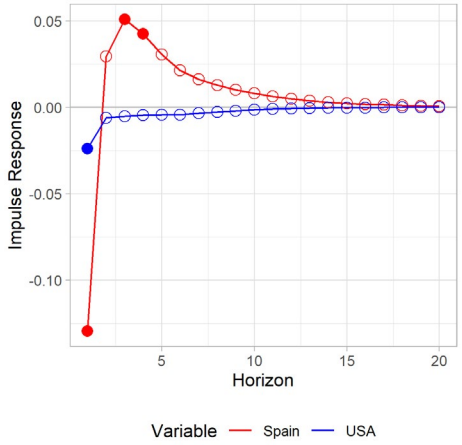
(a) Equity prices



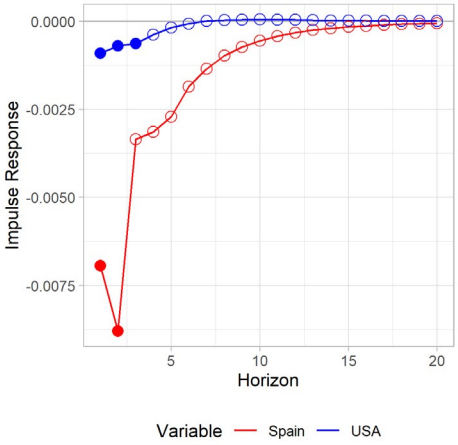
(b) GDP growth



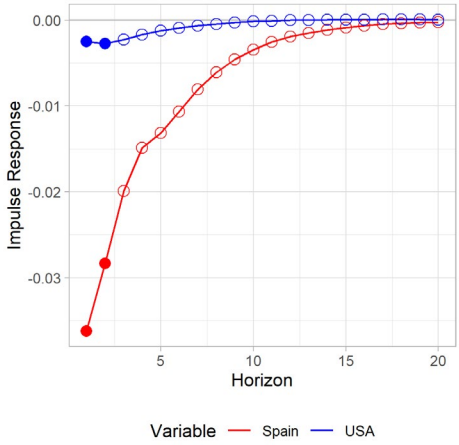
(c) Bank claims



(d) FDI from LATAM



(e) FDI to LATAM



Note: The panel of charts show the impulse response functions of each variable to a one standard deviation uncertainty shock proxied by the EPU index. The effects are estimated with a BVAR using quarterly data (2000Q1-2024Q1). The model variables are described in Tables C.3, C.4, C.5. Credible bands are reported at 68%–32% and filled circles indicate statistical significance for the specific horizon. Horizon refers to quarters.

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Appendix

A Words used to build up the EPU indices

A.1 Spanish and local press

- **Uncertainty**: incierto/a, incertidumbre, inestable, inestabilidad, inestabilidades, riesgo, riesgos.
- **Economy**: economico/a, economia.
- **Policy**: *nombre del banco central del país, nombre de la sede del gobierno*, Parlamento, Hacienda, arancel/es, tributacion/es, déficit/s, presupuesto/ario, gasto(s) publico(s), deuda(s) publica(s), techo de la deuda, tipo/s de cambio, desplome de la moneda, caida de la moneda, deuda soberana, política(s) fiscal(es), política(s) monetaria(s), impuesto/s, Legislación/es, reforma/s, norma/s, normativa/s, regulación/es, reglamento/s, ley/es.

A.2 Local press (for Brazil)

- **Uncertainty**: incerto/s, incerteza/s, instável, instabilidade/s, risco/s.
- **Economy**: econômico/s, economia.
- **Policy**: Parlamento, Banco Central do Brazil, Governo, Tesouro, Fazenda, Economia, Palacio do Planalto, tarifa/s, tributação, déficit/s, orçamento/s, gasto(s) publico(s), despesa pública, resultado primário, receitas públicas, dívida pública, teto da dívida, taxa(s) de câmbio, queda* da moeda, divida soberana, politicas fiscais, política(s) monetária(s), imposto/s, Legislação, leis, reforma/s, regra/s, normativa/s, regulamento, regulamentos.

B Narrative validation of EPU indices

In this appendix, we present the country-specific EPU indices to assess their effectiveness in capturing key policy uncertainty events. This type of narrative validation is a

widely used approach in the literature to ensure that the news-based index aligns with the country's historical context. Ideally, observed peaks—defined as values exceeding the mean by two or three standard deviations (SD)—should correspond to periods of increased domestic economic uncertainty.

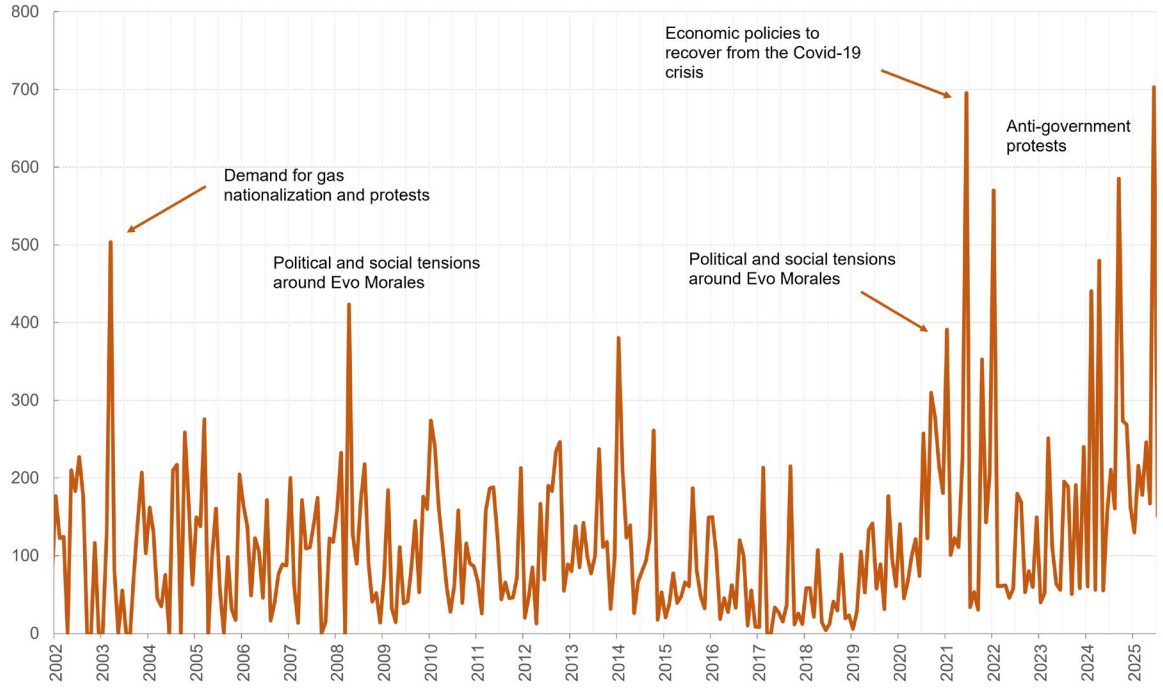
The analysis of these EPU indices for five Latin American countries confirms that major episodes of economic policy uncertainty are accurately reflected in the data. An important example is the economic policy uncertainty caused by the COVID-19 pandemic, which appears in all countries on multiple dates. Additionally, several economic crises are marked by sharp increases in the index values, such as Uruguay's banking crisis in 2002, the drop in oil prices affecting Venezuela in December 2014, and the currency crisis in Venezuela in 2018.

Political instability also contributed to economic policy uncertainty, with relevant spikes in the EPU indices coinciding with general elections, political transitions, or referendum votes. Moreover, we conclude that events that cause economic uncertainty are not limited to national borders but often spread due to regional interconnections and spillover effects. For example, Paraguay was significantly affected by Brazil's economic crisis in 2017, as well as by the depreciation of the Argentine peso in the same year. Similarly, external factors, such as the US elections in 2024 and subsequent trade policies in 2025, had a tangible impact on Uruguay and other Latin American economies with strong commercial ties to the United States.

Table B.1: Historical Economic and Political Events in Latin America

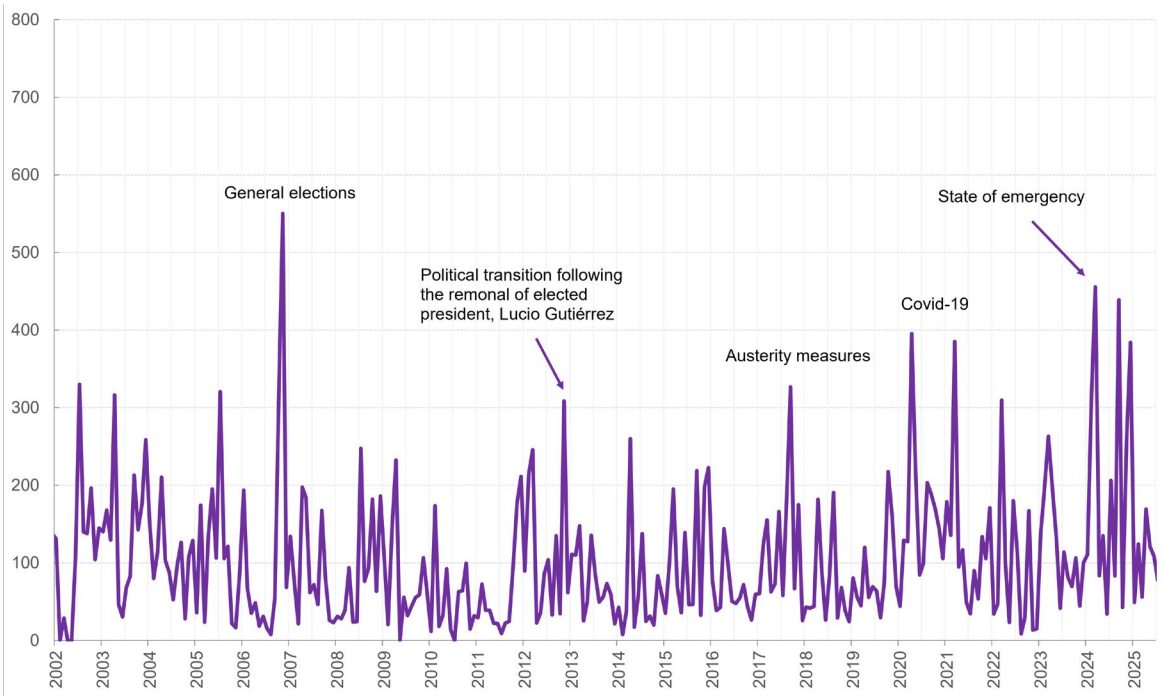
Country	Date	Event Description	3 SD	2 SD
Bolivia	01/11/2000	Anti-privatisation protests		x
	01/03/2003	Demands for gas nationalization and protests	x	x
	01/04/2008	Political and social tensions around Evo Morales; regional opposition against Morales's economic measures (nationalizations)		x
	01/01/2014	New law of health system		x
	01/01/2021	Economic transition with Luis Arce as President		x
	01/06/2021	Economic policies to recover from the Covid-19 crisis	x	x
	01/10/2021	New COVID-19 wave and activity disruptions		x
	01/01/2022	News about rising inflation in Latin America	x	x
	01/02/2024	Evo Morales' supporters protest against Luis Arce	x	x
	01/04/2024	Evo Morales' supporters protest against Luis Arce	x	x
	01/09/2024	"Marcha para salvar Bolivia" caused activities' disruptions	x	x
Ecuador	01/07/2002	The completion of an oil pipeline		x
	01/04/2003	Uncertainty related to general elections		x
	01/07/2005	Uncertainty after president Lucio Gutierrez's destitution		x
	01/10/2006	General elections: first round		x
	01/11/2006	General elections: second round	x	x
	01/11/2012	Political transition following the removal of the elected president, Lucio Gutiérrez		x
	01/09/2017	The government implements austerity measures		x
	01/04/2020	Lockdown	x	x
	01/03/2021	The COVID-19 crisis		x
	01/03/2022	Social unrest and high inflation		x
	01/02/2024	Internal armed conflict		x
	01/03/2024	State of emergency	x	x
	01/09/2024	Insecurity and curfew	x	x
Paraguay	01/01/2000	Banking crisis and persistent inflation		x
	01/09/2000	Economic crisis amid political uncertainty (strikes, protests against President Cubas)	x	x
	01/02/2001	Economic crisis: Macchi implemented increases in basic service tariffs	x	x
	01/07/2016	News on monetary policy rate cut		x
	01/07/2017	Brazilian economic crisis and Argentinian peso depreciation may affect Paraguay	x	x
	01/05/2020	Announcement of economic relief programs to mitigate the effects of the pandemic Covid-19		x
	01/06/2020	More support measures and economic contraction due to Covid-19		x
	01/07/2021	Economic contraction and unemployment reached records	x	x
	01/08/2022	Vice president resigned after being accused of corruption	x	x
	01/09/2022	Post-Pandemic recovery and high inflation		x
	01/04/2023	Pre-election campaign and general elections	x	x
	01/06/2023	Drought and global supply chain disruptions		x
	01/12/2024	Final signing of the EU-Mercosur FTA	x	x
Uruguay	01/08/2002	Banking crisis	x	x
	01/08/2004	Fifth review of the Stand-By Arrangement with the IMF		x
	01/09/2004	Government and IMF discussions on rescheduled deposits		x
	01/09/2005	Upcoming general elections		x
	01/03/2021	A worsening of the fiscal situation as a result of COVID-19	x	x
	01/12/2023	Referendum on social security reform	x	x
	01/10/2024	General elections	x	x
	01/11/2024	Trump won the US Presidential elections		x
	01/12/2024	Final signing of the EU-Mercosur FTA	x	x
	01/02/2025	New U.S. tariffs announcement		x
Venezuela	01/01/2002	Taxes hikes to offset oil losses		x
	01/06/2002	Social tensions following the "coup d'état": disruptions in oil production due to protests and strikes and hyperinflation		x
	01/12/2014	Collapse of oil prices, debt crisis and new economic sanctions from the US		x
	01/07/2018	Trump imposes economic sanctions on Venezuela, hyperinflation, shortages of basic foods		x
	01/08/2018	Currency crisis: new Bolivar Soberano		x
	01/11/2018	Currency devaluation		x
	01/12/2019	Migration crisis and hyperinflation		x
	01/04/2020	COVID-19 crisis: lockdown measures and other restrictions	x	x
	01/10/2020	New law to circunvent sanctions		x
	01/12/2020	Controversial Parliamentary elections		x
	01/08/2021	Economic crisis remains: hyperinflation, poverty and deteriorated oil sector		x
	01/09/2023	Many Venezuelans migrate to the US and Leopoldo López makes opposition from Madrid		x
	01/10/2023	Biden starts Venezuelans ' deportations and Marina Corina Machado won the primary elections as the leader of the opposition		x

Figure B.1: EPU narrative validation for Bolivia



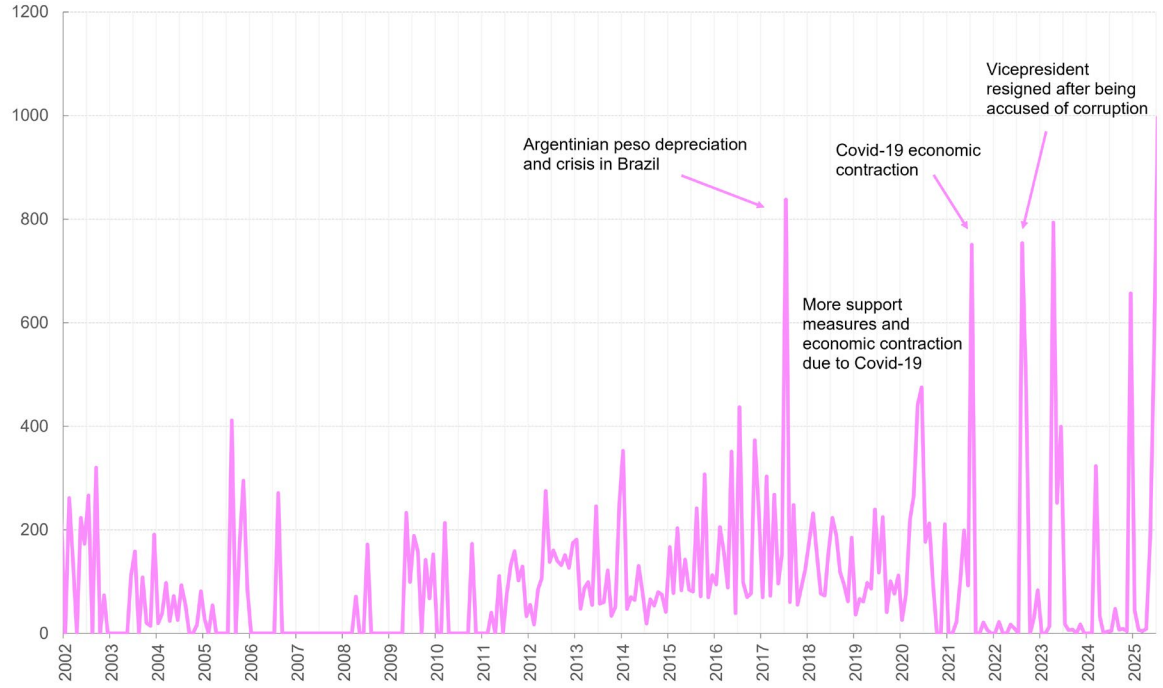
Note: The EPU index for Bolivia is validated against the narrative of events associated with increases in policy uncertainty in that country.

Figure B.2: EPU narrative validation for Ecuador



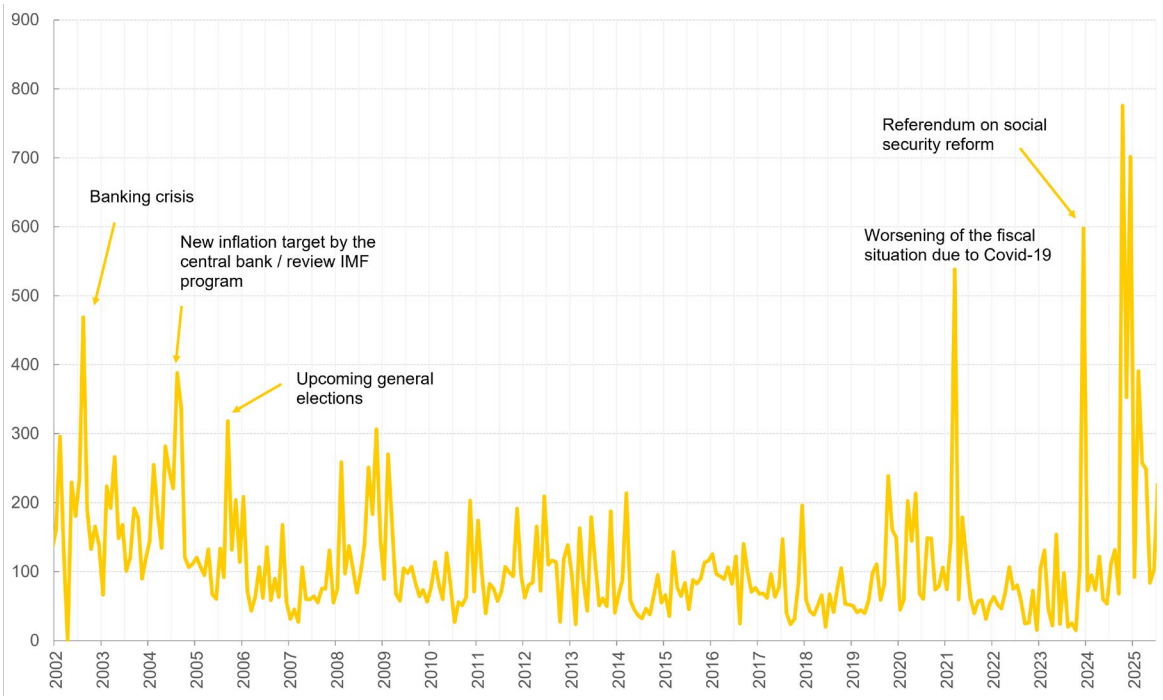
Note: The EPU index for Ecuador is validated against the narrative of events associated with increases in policy uncertainty in that country.

Figure B.3: EPU narrative validation for Paraguay



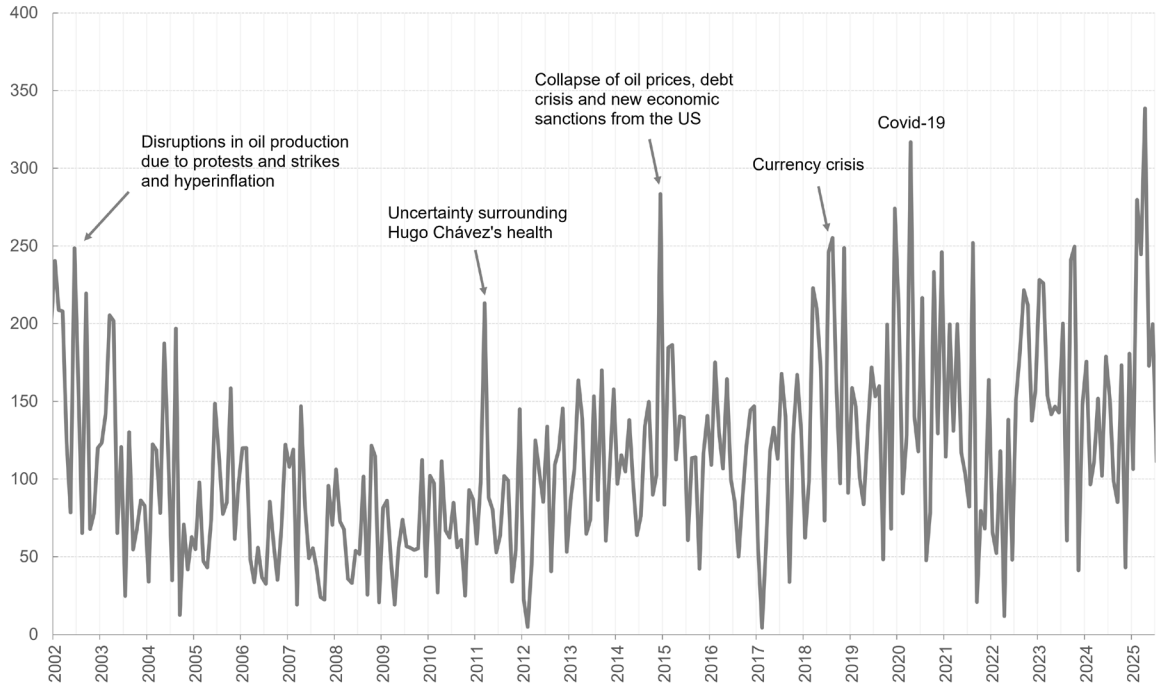
Note: The EPU index for Paraguay is validated against the narrative of events associated with increases in policy uncertainty in that country.

Figure B.4: EPU narrative validation for Uruguay



Note: The EPU index for Uruguay is validated against the narrative of events associated with increases in policy uncertainty in that country.

Figure B.5: EPU narrative validation for Venezuela



Note: The EPU index for Venezuela is validated against the narrative of events associated with increases in policy uncertainty in that country.

C Data description

Table C.1: Variables for Latin American panel BVAR

Type	Mnemonic	Description [Unit]	Source	Mean	Standard deviation	Median	Max	Min
Control	VIX	Measure of constant, 30-day expected volatility of the U.S. stock market derived from real-time, mid-quote prices of S&P 500 Index call and put options [level]. Proxy for global turbulences in financial markets.	CBOE/Bloomberg	20.06	7.40	17.79	51.91	10.12
Control	COM	Standard and Poors Goldman Sachs Commodity Index Commodity Total Return [USD per points].	LSEG	4090.12	1590.00	3933.04	9530.74	1515.25
Control	IPUS	U.S. industrial production index (SA) [QoQ% change].	U.S. Bureau of Economic Analysis	0.14	2.02	0.45	9.32	-12.72
Control	IPCN	China industrial production index (SA) [QoQ% change].	National Bureau of Statistics of China	2.47	3.46	2.04	11.47	-9.53
Impulse	EPU	Economic Policy Uncertainty Index [level].						
		* Argentina	Own estimations	102.16	61.76	81.85	376.13	23.30
		* Bolivia	Own estimations	108.03	74.18	96.70	500.59	0.00
		* Brazil	Own estimations	103.10	43.25	94.33	263.42	41.52
		* Chile	Own estimations	122.15	72.20	98.55	399.31	30.48
		* Colombia	Own estimations	115.91	64.03	101.22	363.81	30.82
		* Ecuador	Own estimations	99.90	56.78	89.53	311.24	18.82
		* Mexico	Own estimations	102.71	29.71	95.01	239.67	52.48
		* Paraguay	Own estimations	98.59	156.43	16.80	831.90	0.00
		* Peru	Own estimations	113.44	67.26	99.26	368.80	29.05
		* Uruguay	Own estimations	103.91	68.92	83.99	404.38	26.16
		* Venezuela	Own estimations	106.10	40.55	96.89	226.02	24.93
Response	PCFNR	Balance of payments: portfolio capital flows liabilities [% of GDP].						
		* Argentina	LSEG	-0.19	3.59	-0.37	10.12	-9.32
		* Bolivia	LSEG	0.11	1.16	0.00	11.31	-1.63
		* Brazil	LSEG	0.69	2.03	0.86	5.83	-5.22
		* Chile	LSEG	2.65	3.50	1.91	20.56	-3.35
		* Colombia	LSEG	0.44	0.62	0.37	2.32	-0.81
		* Ecuador	LSEG	0.06	5.26	0.00	11.09	-40.03
		* Mexico	LSEG	1.31	2.20	0.92	7.78	-3.55
		* Paraguay	LSEG	0.81	2.29	0.00	11.94	-2.28
		* Peru	LSEG	1.77	3.03	0.94	11.53	-4.49
		* Uruguay	LSEG	1.68	4.65	1.17	16.54	-10.14
		* Venezuela	LSEG	0.06	2.01	0.01	6.81	-7.16
Response	FX	Bilateral exchange rate vs USD [QoQ% change]. A positive sing represents a depreciation of the local currency vs the USD.						
		* Argentina	LSEG	8.14	16.52	2.85	98.24	-10.99
		* Bolivia	LSEG	0.17	0.98	0.00	2.47	-3.80
		* Brazil	LSEG	1.26	7.73	-0.09	36.87	-14.70
		* Chile	LSEG	0.71	5.19	0.34	24.10	-11.33
		* Colombia	LSEG	0.88	5.60	0.09	20.45	-9.68
		* Ecuador	LSEG	0.47	4.63	0.00	45.56	-0.30
		* Mexico	LSEG	0.71	4.86	-0.44	26.67	-8.68
		* Paraguay	LSEG	0.93	4.88	0.73	21.54	-11.61
		* Peru	LSEG	0.11	2.30	-0.20	6.67	-5.45
		* Uruguay	LSEG	1.46	6.93	0.74	52.19	-10.90
		* Venezuela	LSEG	77.24	427.55	0.00	3947.28	-35.86
Response	EMBI	Emerging Market Bond Index, sovereign spread vs USD [basis points].						
		* Argentina	LSEG/JP Morgan	1653	1670	882	6618	210
		* Bolivia	LSEG/JP Morgan	450	401	305	1947	73
		* Brazil	LSEG/JP Morgan	392	308	268	1900	148
		* Chile	LSEG/JP Morgan	150	51	145	358	57
		* Colombia	LSEG/JP Morgan	307	169	236	846	117
		* Ecuador	LSEG/JP Morgan	1129	779	840	4216	393
		* Mexico	LSEG/JP Morgan	268	98	246	590	102
		* Paraguay	LSEG/JP Morgan	251	42	240	363	186
		* Peru	LSEG/JP Morgan	255	161	188	779	111
		* Uruguay	LSEG/JP Morgan	300	247	217	1393	87
		* Venezuela	LSEG/JP Morgan	7093	12303	1130	49736	200

Table C.2: Variables for Latin American panel BVAR (cont.)

Type	Mnemonic	Description [Unit]	Source	Mean	Standard deviation	Median	Max	Min
Response	PCFR	Balance of payments: portfolio capital flows, assets [% of GDP].						
		* Argentina	LSEG	0.16	0.72	0.08	2.19	-2.85
		* Bolivia	LSEG	0.30	1.34	0.23	3.04	-3.80
		* Brazil	LSEG	0.15	0.32	0.09	1.28	-0.64
		* Chile	LSEG	3.25	3.03	3.25	9.74	-5.19
		* Colombia	LSEG	0.29	0.24	0.33	0.83	-0.30
		* Ecuador	LSEG	0.42	0.45	0.42	1.88	-0.64
		* Mexico	LSEG	0.46	0.72	0.32	3.45	-1.22
		* Paraguay	LSEG	–	–	–	–	–
		* Peru	LSEG	0.68	1.36	0.94	2.50	-5.17
		* Uruguay	LSEG	1.66	2.53	1.49	9.51	-4.09
		* Venezuela	LSEG	-0.05	1.15	-0.32	4.70	-3.32
Response	FDI	Foreign direct invesment [% of GDP].						
		* Argentina	LSEG	2.00	1.51	1.86	7.79	-3.59
		* Bolivia	LSEG	4.05	4.90	3.60	15.08	-9.56
		* Brazil	LSEG	3.72	1.62	3.48	9.38	0.78
		* Chile	LSEG	6.35	4.05	5.72	19.72	-4.20
		* Colombia	LSEG	1.41	0.82	1.26	7.24	0.31
		* Ecuador	LSEG	1.37	1.60	0.88	6.88	-2.30
		* Mexico	LSEG	2.63	1.39	2.48	8.05	0.27
		* Paraguay	LSEG	1.29	0.77	1.21	2.82	-0.88
		* Peru	LSEG	3.53	2.69	3.28	10.81	-4.52
		* Uruguay	LSEG	3.67	6.87	3.97	15.97	-47.41
		* Venezuela	LSEG	1.22	1.49	1.24	7.07	-3.44
Response	GDP	Real GDP (SA) [QoQ% change].						
		* Argentina	LSEG	0.39	2.84	0.67	10.65	-13.89
		* Bolivia	LSEG	0.91	2.94	1.15	14.15	-17.74
		* Brazil	LSEG	0.58	1.66	0.84	7.88	-8.83
		* Chile	LSEG	0.85	1.92	0.90	6.91	-12.67
		* Colombia	LSEG	0.91	2.34	0.90	10.32	-16.21
		* Ecuador	LSEG	0.88	2.28	1.06	8.35	-15.73
		* Mexico	LSEG	0.44	2.74	0.62	15.47	-18.93
		* Paraguay	LSEG	0.78	2.63	0.76	7.11	-8.41
		* Peru	LSEG	1.06	4.31	1.11	30.36	-26.15
		* Uruguay	LSEG	0.58	2.36	1.06	7.95	-11.80
		* Venezuela	LSEG	-0.70	4.72	0.07	16.69	-14.92

Table C.3: Variables for Spanish spillovers BVAR

Type	Mnemonic	Description [Unit]	Source	Mean	Standard deviation	Median	Max	Min
Control	VIX_GLO	Measure of constant, 30-day expected volatility of the U.S. stock market derived from real-time, mid-quote prices of S&P 500 Index call and put [level]. Proxy for global turbulences in financial markets.	CBOE/Bloomberg	20.06	7.40	17.79	51.91	10.12
Control	COM_GLO	Standard and Poor's Goldman Sachs Commodity Index Commodity Total Return [USD per points].	LSEG	4090.12	1590.00	3933.04	9530.74	1515.25
Control	ACT_GLO	Global activity index [QoQ% change].	Baumeister and Hamilton 2019	0.56	1.70	0.74	8.19	-6.60
Control	EQT_REG_EUR	Eurostoxx 50 equity index [QoQ% change].	LSEG	0.48	7.59	1.34	20.87	-23.82
Control	GDP_LAT	Real GDP (SA) [QoQ% change]. Aggregate based on average of 11 Latin American countries.						
		* Simple	LSEG	0.61	2.06	0.72	10.28	-14.25
		* Weighted (based on GDP shares)	LSEG	0.54	2.06	0.60	11.17	-13.96
Control	EPU_ESP	Economic Policy Uncertainty Index [level].	Own estimations	115.65	47.60	112.92	298.79	48.92
Control	SPR_ESP	Spread between Spanish and German public debt long term yields [percentage points].	LSEG	1.00	1.06	0.82	5.08	-0.02
Control	FXESP_LAT	Bilateral exchange rate of Latin American countries vs EUR weighted by total external trade of each country with Spain [QoQ% change]. A positive sign denotes an appreciation of the Euro.	LSEG and own calculations	-0.70	4.80	-0.95	9.17	-12.88
Control	INF_ESP	HICP [QoQ% change].	LSEG	0.59	0.66	0.58	2.96	-0.84
Impulse	EPU_LAT	Economic Policy Uncertainty Index [level]. Aggregate based on average of 11 Latin American countries.	Own estimations	107.28	34.88	96.27	233.72	57.77
Response	EQTLAT_ESP	Latibex equity index [QoQ% change].	LSEG	1.49	12.08	2.18	24.77	-38.82
Response	EQT_ESP	Ibex 35 equity index [QoQ% change].	LSEG	0.38	7.87	0.70	18.63	-20.48
Response/Control	GDP_ESP	Real GDP (SA) [QoQ% change].	Spanish statistical office	0.45	2.59	0.66	15.90	-17.79
Response	BCL_ESP	Banks from Spain - Consolidated total claims in all currencies with residents of 11 Latin American countries (immediate counterparty basis), all sectors, all instruments, all maturities [% of GDP].	BIS	29.08	7.87	32.25	40.50	15.36
Response	FDILAT_ESP	FDI gross investment flows from 11 Latin American countries to Spain [% of GDP].	Ministry of economy, trade and enterprise Spain	0.10	0.15	0.04	1.03	0.01
Response	FDIESP_LAT	FDI gross investment flows from Spain to 11 Latin American countries [% of GDP].	Ministry of economy, trade and enterprise Spain	0.81	0.95	0.51	7.63	0.11

Table C.4: Variables for the U.S. spillovers BVAR

Type	Mnemonic	Description [Unit]	Source	Mean	Standard deviation	Median	Max	Min
Control	VIX_GLO	Measure of constant, 30-day expected volatility of the U.S. stock market derived from real-time, mid-quote prices of S&P 500 Index call and put options [level]. Proxy for global turbulences in financial markets.	CBOE/Bloomberg	20.06	7.40	17.79	51.91	10.12
Control	COM_GLO	Standard and Poor's Goldman Sachs Commodity Index Commodity Total Return [USD per points].	LSEG	4090.12	1590.00	3933.04	9530.74	1515.25
Control	ACT_GLO	Global activity index [QoQ% change].	Baumeister and Hamilton 2019	0.56	1.69	0.72	8.21	-6.62
Control	EQT_GLO	MSCI World equity index [QoQ% change].	LSEG	1.21	6.57	2.27	13.96	-30.34
Control	GDP_LAT	Real GDP (SA) [QoQ% change]. Aggregate based on average of 11 Latin American countries.						
		* Simple	LSEG	0.61	2.06	0.72	10.28	-14.25
		* Weighted (based on GDP shares)	LSEG	0.54	2.06	0.60	11.17	-13.96
Control	EPU_USA	Economic Policy Uncertainty Index [level].	Baker, Bloom, and Davis 2016	139.23	64.01	126.63	503.96	44.78
Control	BYD_USA	United States Government Benchmark Bid Yield 10 Years [%].	LSEG	3.26	1.30	3.20	6.46	0.65
Control	FXUSA_LAT	Bilateral exchange rate of Latin American countries vs USD weighted by total external trade of each country with the U.S. [QoQ% change]. A positive sign denotes an appreciation of the U.S. Dollar.	LSEG and own calculations.	-0.54	4.14	0.15	7.61	-20.13
Control	INF_USA	CPI [QoQ% change].	LSEG	0.64	0.62	0.68	2.39	-2.29
Impulse	EPU_LAT	Economic Policy Uncertainty Index [level]. Aggregate based on average of 11 Latin American countries.	Own estimations	111.08	38.68	101.25	279.34	45.56
Response	EQT_USA	Standard and Poor's 500 equity index [QoQ% change].	LSEG	2.18	6.17	3.04	13.37	-27.40
Response/Control	GDP_USA	Real GDP (SA) [QoQ% change].	U.S. Bureau of Economic Analysis	0.54	1.28	0.61	7.83	-7.91
Response	BCL_USA	Banks from U.S., consolidated total claims in all currencies with residents of 11 Latin American countries (immediate counterparty basis), all sectors, all instruments, all maturities [% of GDP].	BIS	4.42	0.89	4.03	6.72	3.28
Response	FDIUSA_LAT	FDI gross investment flows from the U.S. to 11 Latin American countries [% of GDP].	U.S. Bureau of Economic Analysis	1.21	0.15	1.19	1.55	0.95
Response	FDILAT_USA	FDI gross investment flows from 11 Latin American countries to the U.S. [% of GDP].	U.S. Bureau of Economic Analysis	0.12	0.04	0.13	0.20	0.03

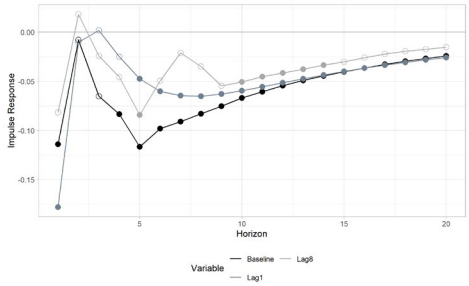
Table C.5: Variables for Chinese spillovers BVAR

Type	Mnemonic	Description [Unit]	Source	Mean	Standard deviation	Median	Max	Min
Control	VIX_GLO	Measure of constant, 30-day expected volatility of the U.S. stock market derived from real-time, mid-quote prices of S&P 500 Index call and put options [level]. Proxy for global turbulences in financial markets.	CBOE/Bloomberg	20.06	7.40	17.79	51.91	10.12
Control	COM_GLO	Standard and Poor's Goldman Sachs Commodity Index Commodity Total Return [USD per points].	LSEG	4090.12	1590.00	3933.04	9530.74	1515.25
Control	ACT_GLO	Global activity index [QoQ% change].	Baumeister and Hamilton (2019)	0.56	1.69	0.72	8.21	-6.62
Control	EQT_GLO	MSCI World equity index [QoQ% change].	LSEG	1.21	6.57	2.27	13.96	-30.34
Control	GDP_LAT	Real GDP (SA) [QoQ% change]. Aggregate based on average of 11 Latin American countries.						
		* Simple	LSEG	0.61	2.06	0.72	10.28	-14.25
		* Weighted (based on GDP shares)	LSEG	0.54	2.06	0.60	11.17	-13.96
Control	EPU_CHN	Economic Policy Uncertainty Index [level].	Baker, Bloom, and Davis (2016)	149.67	118.73	113.10	661.83	10.11
Control	FCI_CHN	Financial Conditions Index [level].	Arrigoni, Bobasu, and Venditti (2022)	-0.06	0.88	-0.13	2.46	-2.87
Control	FXCHN_LAT	Bilateral exchange rate of Latin American countries vs CNY weighted by total external trade of each country with China [QoQ% change]. A positive sign denotes an appreciation of the Yuan.	LSEG and own calculations	-0.59	5.15	-0.43	8.61	-17.85
Control	INF_CHN	CPI [QoQ% change].	LSEG	0.51	0.63	0.39	2.51	-0.97
Impulse	EPU_LAT	Economic Policy Uncertainty Index [level]. Aggregate based on average of 11 Latin American countries.	Own estimations	111.08	38.68	101.25	279.34	45.56
Response	EQT_CHN	Shanghai A Share equity index [QoQ% change].	LSEG	2.18	6.17	3.04	13.37	-27.40
Response/Control	GDP_CHN	Real GDP (SA) [QoQ% change].	National Bureau of Statistics China	1.99	1.78	1.92	12.24	-9.66

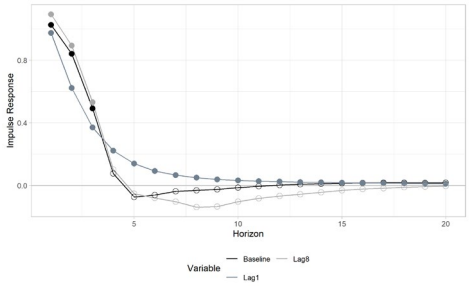
D Robustness figures

Figure D.1: Robustness of EPU shocks in Latin America as a region using different lag orders

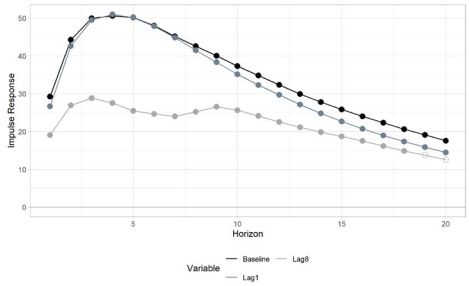
(a) Non-residential PCF



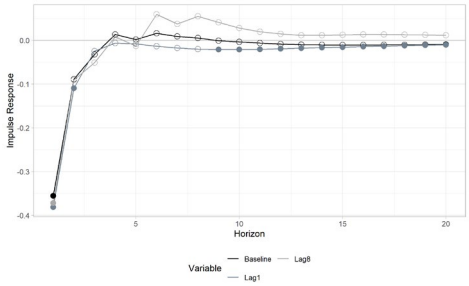
(b) Exchange rates



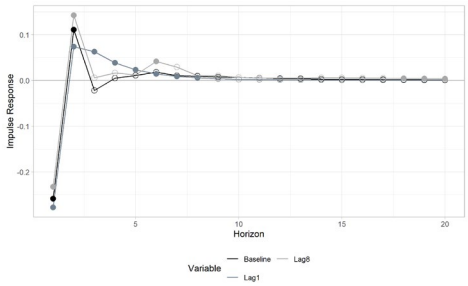
(c) EMBI



(d) FDI



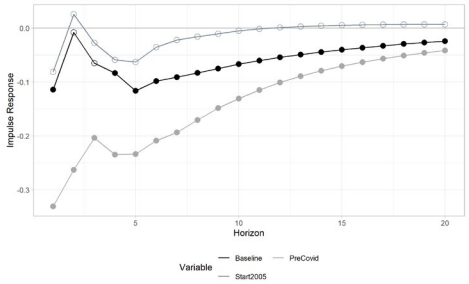
(e) GDP



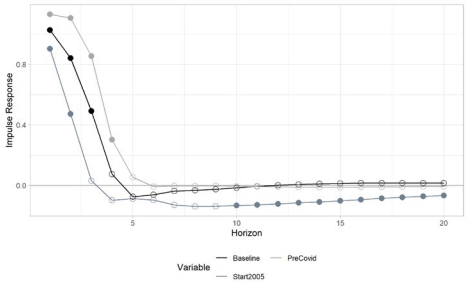
Note: The panel of charts show the impulse response functions of each variable to a one standard deviation uncertainty shock proxied by the EPU index. The effects are estimated with a BVAR using quarterly data (2000Q1-2024Q1). The model variables are described in Table 3. Credible bands are reported at 68%–32% and filled circles indicate statistical significance for the specific horizon. Horizon refers to quarters.

Figure D.2: Robustness of EPU shocks in Latin America as a region using different time samples

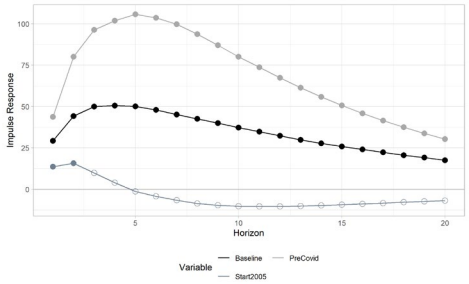
(a) Non-residential PCF



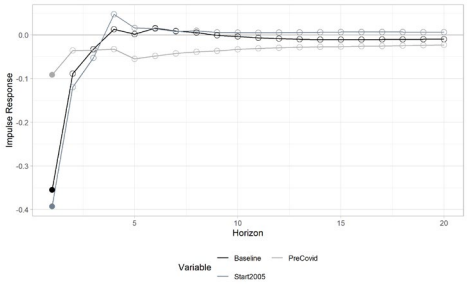
(b) Exchange rates



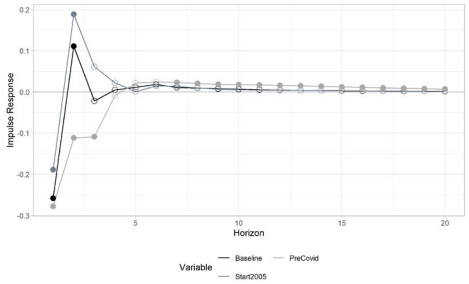
(c) EMBI



(d) FDI



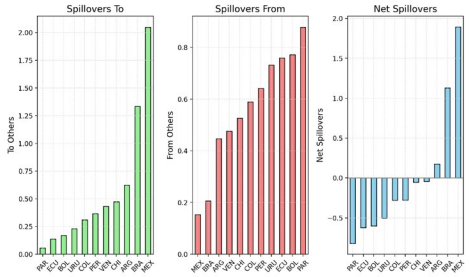
(e) GDP



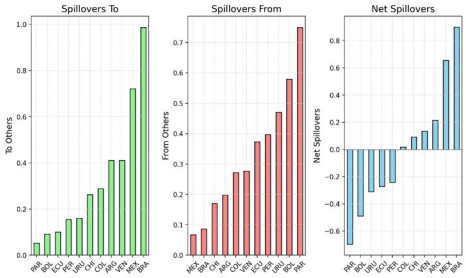
Note: The panel of charts show the impulse response functions of each variable to a one standard deviation uncertainty shock proxied by the EPU index. The effects are estimated with a BVAR using quarterly data (2000Q1-2024Q1). The model variables are described in Table 3. Credible bands are reported at 68%–32% and filled circles indicate statistical significance for the specific horizon. Horizon refers to quarters.

Figure D.3: Robustness of EPU directional spillovers by country using different lag orders

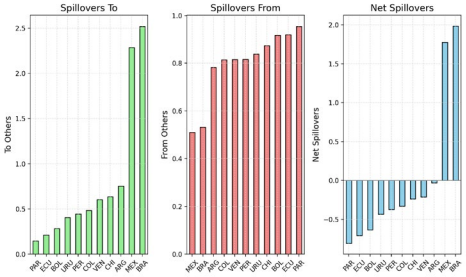
(a) Baseline (12 lags)



(b) 6 lags



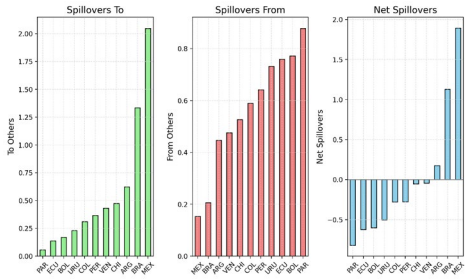
(c) 24 lags



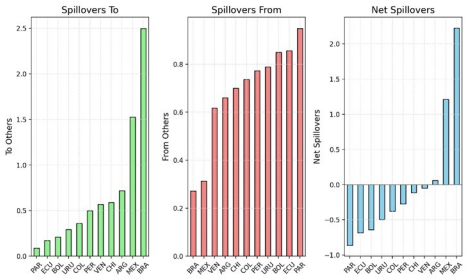
Note: The 3 barplots depict the country-specific directional EPU spillovers. The first graph describe the spillovers generated by each country to third countries. In turn, the second chart shows the received spillovers from other countries. The last chart computes the difference between the preceding bars to indicate if a country is a net generator or receiver of EPU spillovers.

Figure D.4: Robustness of EPU directional spillovers by country using different time samples

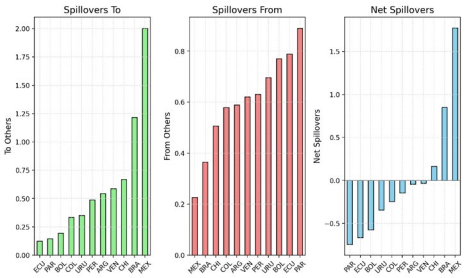
(a) Baseline (1997-2025)



(b) Start 2005



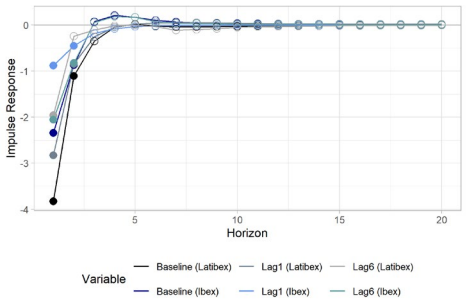
(c) End 2019 (before Covid-19)



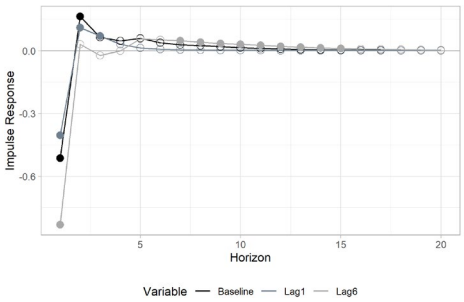
Note: The 3 barplots depict the country-specific directional EPU spillovers. The first graph describe the spillovers generated by each country to third countries. In turn, the second chart shows the received spillovers from other countries. The last chart computes the difference between the preceding bars to indicate if a country is a net generator or receiver of EPU spillovers.

Figure D.5: Robustness of EPU shocks in Latin America to Spain using different lag orders

(a) Equity



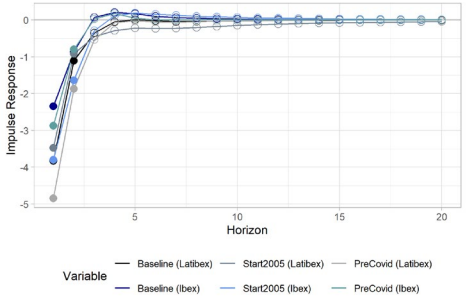
(b) GDP



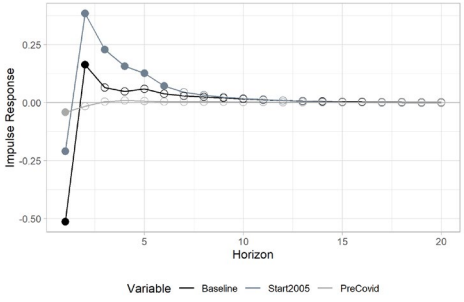
Note: The panel of charts show the impulse response functions of each variable to a one standard deviation uncertainty shock proxied by the EPU index. The effects are estimated with a BVAR using quarterly data (2000Q1-2024Q1). The model variables are described in Table C.3. Credible bands are reported at 68%–32% and filled circles indicate statistical significance for the specific horizon. Horizon refers to quarters.

Figure D.6: Robustness of EPU shocks in Latin America to Spain using different time samples

(a) Equity



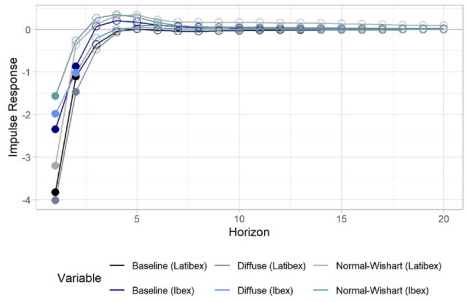
(b) GDP



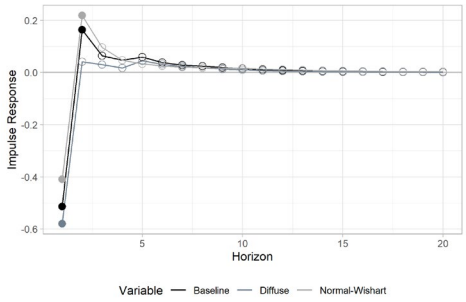
Note: The panel of charts show the impulse response functions of each variable to a one standard deviation uncertainty shock proxied by the EPU index. The effects are estimated with a BVAR using quarterly data (2000Q1-2024Q1). The model variables are described in Table C.3. Credible bands are reported at 68%–32% and filled circles indicate statistical significance for the specific horizon. Horizon refers to quarters.

Figure D.7: Robustness of EPU shocks in Latin America to Spain using different priors

(a) Equity



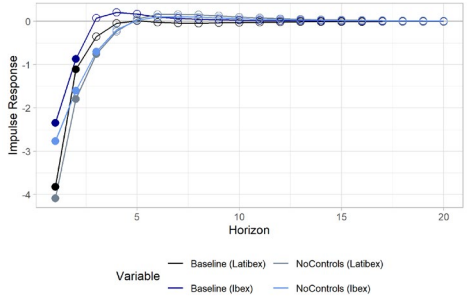
(b) GDP



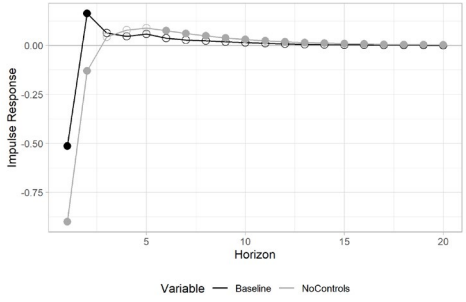
Note: The panel of charts show the impulse response functions of each variable to a one standard deviation uncertainty shock proxied by the EPU index. The effects are estimated with a BVAR using quarterly data (2000Q1-2024Q1). The model variables are described in Table C.3. Credible bands are reported at 68%–32% and filled circles indicate statistical significance for the specific horizon. Horizon refers to quarters.

Figure D.8: Robustness of EPU shocks in Latin America to Spain with no controls

(a) Equity



(b) GDP



Note: The panel of charts show the impulse response functions of each variable to a one standard deviation uncertainty shock proxied by the EPU index. The effects are estimated with a BVAR using quarterly data (2000Q1-2024Q1). The model variables are described in Table C.3. Credible bands are reported at 68%–32% and filled circles indicate statistical significance for the specific horizon. Horizon refers to quarters.

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