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# Does Policy Uncertainty Affect Economic Globalisation? An Empirical Investigation

Jianchun Fang Zhejiang University, China Email: <u>fangjianchun@zju.edu.cn</u>

Giray Gozgor (Corresponding Author) Istanbul Medeniyet University, Istanbul, Turkey Email: giray.gozgor@medeniyet.edu.tr

> **Chi Keung Marco Lau** Teesside University, the UK Email: <u>c.lau@tees.ac.uk</u>

**Neelu Seetaram** Leeds Beckett University, the UK Email: <u>N.Seetaram@leedsbeckett.ac.uk</u>

# Abstract

This paper investigates the role of policy uncertainty on indices of economic globalisation from 1996 to 2016 in the panel dataset of 142 countries. For this purpose, we use the nine measures of the Revisited KOF Economic Globalisation Indices and two new measures of uncertainty: The World Uncertainty Index (WUI) and the Trade Policy Uncertainty Index (TPUI). The findings indicate that both the WUI and the TPUI are negatively associated with the overall index of economic globalisation. The benchmark results remain consistent under various model specifications, econometric estimation techniques, and countries at different income levels.

**Keywords:** economic integration; trade globalisation; financial globalisation; economic policy uncertainty; trade policy uncertainty

**JEL Codes:** F15; F14; F36

# **1. Introduction**

One of the most desirable consequences of globalisation has been the significant decline in barriers to international trade capital flows and foreign direct investments (FDI), which have contributed to the growth and development of many countries, including a few of the least developed in the world. However, in recent years, uncertainties that have arisen due to the phenomenon such as the Global Financial Crisis (henceforth GFC) of 2008–9, the Brexit process, and the increase in protectionism in the United States have started to affect the level of economic integration negatively. This issue is referred to as the "deglobalisation process" (Van Bergeijk, 2019). The issues, including the unequal distribution of income and opportunities resulting from globalisation, have meant that the "sustainability" of globalisation is being questioned. This is becoming of the most major economic and political challenges of the 2020s.

As uncertainties continue to increase and affect the behaviour of economic agents and their decision making, the academic literature on the issues states that it will potentially affect the process of globalisation. Several authors have demonstrated that uncertainty has a significant negative effect on globalisation measured by the volume of trade, portfolio and FDI flows. For instance, according to Bems et al. (2011 and 2013), Carballo et al. (2018), and Kee et al. (2013), the GFC of 2008–9 is negatively related to the volume of world trade. Debaere et al. (2015) introduce a theoretical model to explain why uncertainty shocks reduce international trade size.<sup>1</sup> Novy and Taylor (2020) also show that a rise in the level of uncertainty shocks leads to a loss of welfare through the decline in the volume of international trade flows.

A rise in uncertainty is expected to reduce consumers' and producers' confidence levels and harm the business environment. These issues can also result in irrational economic,

<sup>&</sup>lt;sup>1</sup> There are several theoretical frameworks, both with a macro and a micro perspective, about the main mechanisms through which uncertainty could affect economic globalisation (see, e.g., Crowley et al., 2019; Dominguez and Shapiro, 2013; Douch and Edwards 2021; Graziano et al., 2021; Limao and Maggi, 2015; Pierce and Schott, 2016).

financial, and political decisions by policymakers favouring short term gains at the expense of long term ones. An increase in uncertainty can directly affect the degree of economic globalisation (globalisation outcome) since it also affects the FDI and portfolio flows. It is common knowledge that policy uncertainty is harmful to economic activity, including trade and FDI, thereby de facto globalisation measures. However, de jure globalisation is negatively correlated to policy uncertainty is vital. Specifically, uncertainty can cause restrictions (globalisation policy) on international trade, investments, and capital flows since governments may support protectionism measures (Van Bergeijk, 2019). Overall, we expect economic uncertainty to be more substantially correlated with de facto and de jure measures of globalisation.

In this paper, a more comprehensive econometric model is developed to assess the role of uncertainty on economic globalisation. The paper improves the literature by using the Revisited KOF Economic Globalisation dataset from Gygli et al. (2019), which goes beyond three traditional measures (trade, FDI and portfolio flows). Instead, it provides nine indicators of globalisation in addition to two new measures of uncertainty, so-called the World Uncertainty Index (henceforth WUI) and the Trade Policy Uncertainty Index (henceforth TPUI) of Ahir et al. (2018 and 2019).

To the best of our knowledge, there are no empirical findings for analysing the impact of these new measures of uncertainty on the revisited indices of economic globalisation in the light of the recent developments in the world economy. This issue improves the current literature, mostly used volumes of trade, portfolio flows, and FDI as the focal point, providing a more comprehensive and complete picture of the effect of uncertainty on globalisation. Additionally, our paper aims to enhance the previous findings by using a large panel dataset of 142 countries over 1996–2016. The results are further decomposed to analyse the effect on lowincome economies compared to Organisation for Economic Co-operation and Development (OECD) countries. We observe that both the WUI and the TPUI are negatively associated with the overall index of economic globalisation

The rest of the paper is organised as follows. Section 2 reviews the previous empirical literature. Section 3 explains the empirical models, data, and estimation procedures. Section 4 provides the empirical findings. Section 5 discusses the robustness of the results. Section 6 concludes the paper.

#### 2. Literature Review

From an empirical perspective, Baker et al. (2016), Bloom (2009), Bloom et al. (2007 and 2018), Gozgor (2019), and Novy and Taylor (2020) indicate that a higher level of uncertainty in economic policies reduces the level of economic globalisation for through three channels. The first effect is the "demand-side effect," that is, a higher uncertainty leads to a decline in demand for products primarily in the short run, where the demand is elastic. The second effect is the "supply-side effect," which is the "wait-and-see" behaviour of firms concerning their investment decisions during times of higher uncertainty. The third effect is the "delaying effect," when individuals postpone buying or selling durable consumer goods, such as cars, houses and other major consumption items. This issue also affects the buy and sell decisions of firms. The above eventually affect the demand and supply of foreign products and, therefore, the trade volume, leading to 'remedial' changes in stakeholders' policies, including the government.

Several studies have explored the relationship between uncertainty and measures of economic globalisation. However, most of the papers have used the index of economic policy uncertainty (EPU) introduced by Baker et al. (2016) and have focused on one primary indicator of economic globalisation (e.g., the trade, FDI, and portfolio flows). For instance, using the data over the period 1962–2012, Novy and Taylor (2020) use the stock market volatility in the

United States as a benchmark indicator of uncertainty to examine the impact of uncertainty on the trade flows. The authors find that uncertainty shocks significantly reduce the volume of international trade. Handley (2014) illustrates the negative effects of trade policy uncertainty on the Australian imports (measured by the product level) over 1993–2001. Another novel evidence from Handley (2014) is that the trade policy uncertainty has declined since 1996 due to the World Trade Organisation establishment this year. According to Handley and Limão (2015), a higher number of trade agreements, which indicate a lower level of uncertainties, boosted the firms' export performance in Portugal and Spain over 1981–1990. In a further study, Handley and Limão (2017) used the data for the Chinese exports to the United States over 2000–2005. The authors show that the adverse effects of the policy uncertainty and trade policy uncertainty on export performance are economically and statistically significant.

There are also several papers to use the EPU indices as potential drivers of international trade indicators. For example, using the fixed-effects estimations, Constantinescu et al. (2017) investigate the impact of the EPU on the growth of international trade volume in the panel data of 16 countries over 1995–2015. The authors observe that a higher level of the EPU leads to a significant decline in the volume of international trade. Similarly, Tam (2018) finds that the rises in both the EPU and the TPUI in the United States significantly decrease the global trade flows. Graziano et al. (2021) indicate that uncertainty due to the probability of Brexit as an indicator of trade policy uncertainty reduces the European Union (EU)–the United Kingdom (UK) bilateral export values. The adverse impact of an uncertainty shock is higher in the EU exporters than the UK exporters.

Our study differs from the ones above in that it uses a comprehensive panel dataset, which includes trade policy uncertainty and policy uncertainty in 142 countries. Our paper covers the period from 1996 to 2016, and the starting date is in line with most of the previous studies. The paper's novelty is to use the Revisited KOF Economic Globalisation dataset (nine

indicators), which captures trade, portfolio, and FDI flows. Multiple policy dimensions of economic globalisation, making the study more comprehensive and result more reliable. These indicators represent "outcome" and "policy" measures of trade and financial globalisation since the indicators have been divided into *de jure* and *de facto* measures of economic globalisation.<sup>2</sup> Finally, various model specifications, econometric techniques, and the countries at different income levels are considered. Potential endogeneity issues and omitted variable bias are also addressed, excluding the outliers to ensure the robustness of the findings. The findings support those of the literature, which show a significant negative impact of uncertainty shocks on the level of economic globalisation.

#### 3. Models, Methodology, and Data

#### 3.1 Empirical Models and Estimation Procedures

The following equations are estimated to examine the effects of economic policy uncertainty on the indices of economic globalisation:

Economic Globalisation<sub>*i*,*t*</sub> = 
$$\gamma_0 + \gamma_1$$
 Economic Globalisation<sub>*i*,*t*-1</sub> +

 $\gamma_2 \,\Delta Uncertainty_{i,t-1} + \gamma_3 \,X_{i,t} + \,\vartheta_t + \vartheta_i + \varepsilon_{i,t} \tag{1}$ 

*Economic Globalisation*<sub>*i*,*t*</sub> =  $\beta_0 + \beta_1 Economic Globalisation$ <sub>*i*,*t*-1</sub> +

$$\beta_2 \Delta Trade \ Uncertainty_{i,t-1} + \beta_3 \ X_{i,t} + \ \vartheta_t + \vartheta_i + \varepsilon_{i,t}$$
(2)

where, *Economic Globalisation*<sub>*i*,*t*</sub> and *Economic Globalisation*<sub>*i*,*t*-1</sub> are the current and the lagged indices (both are defined as levels) of economic globalisation (*de facto* and *de jure* measures of overall economic globalisation, trade globalisation, and financial globalisation) in the country *i* in times of *t* and *t*-1.  $\Delta Uncertainty_{i,t-1}$  and  $\Delta Trade Uncertainty_{i,t-1}$  are the lagged measures of uncertainty and trade uncertainty in the

<sup>&</sup>lt;sup>2</sup> For more information, visit <u>https://kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html</u>

country *i* at time *t*-1.  $X_{i,t}$  denotes the "vector of controls." Finally,  $\vartheta_t$ ,  $\vartheta_i$ , and  $\varepsilon_{i,t}$  indicate the "time fixed-effects", the "country fixed-effects", and the "error terms", respectively.

Following previous papers and satisfy the persistence in globalisation and stationarity characteristics of uncertainty and globalisation indicators are measured in index levels (Gozgor, 2018). Uncertainty indices are measured in the first differences (Tam, 2018). At this stage, following previous papers (e.g., Gozgor, 2018), the per capita gross domestic product (GDP) and the age dependency ratio as the main controls in the estimations of Eq. (1) and Eq. (2) are included. Additional controls, such as macroeconomic indicators, measures or institutional quality and income inequality, are used in the sensitivity analyses to be consistent with the existing literature.

The benchmark regressions in Eq. (1) and Eq. (2) are estimated by the system generalised method of moments (GMM) estimations proposed by Arellano and Bover (1995) and Blundell and Bond (1998) to avoid possible problems of autocorrelation and the existence of different orders of integration in the variables. The two-stage estimation method in the System GMM estimations solves potential multicollinearity problems among the explanatory variables used. Following Roodman (2009) technique, the instruments are collapsed, and robust standard errors are considered.<sup>3</sup>

The system GMM estimations are utilised to solve potential "endogeneity bias" problems and a "reverse causality problem" among controls and indices of economic globalisation by instrumenting them with their particular lagged variables. The instruments must be uncorrelated with the error terms; however, they must be correlated with the instrumented variables. Therefore, we must find a significant "first-order autocorrelation" in the residuals, but there must be no "second-order autocorrelation." To check the validity of the potential "over-identification problem," the Sargan test also runs. The "time fixed-effects" and

<sup>&</sup>lt;sup>3</sup> See xtabond2 Stata package for more details.

the "country fixed-effects" are also included in the system GMM estimations to model remaining possible heterogeneities, which can affect the indices of economic globalisation.

#### 3.2 Data

The dataset covers the period from 1996 to 2016, and the starting date and the number of countries are due to the availability of data. The frequency of the data is annual<sup>4</sup>, and the dataset includes 142 countries.<sup>5</sup> The list of countries is provided in Data Appendix I.

# 3.2.1 Economic Globalisation Indices

Nine indices of economic globalisation (overall, *de facto*, and *de jure* measures of economic globalisation, trade globalisation, and financial globalisation) are the dependent variable in the estimations of Eq. (1) and Eq. (2). These revisited *Konjunkturforschungsstelle* (KOF) indices of economic globalisation are developed by Gygli et al. (2019). The related to the database of the ETH Zurich are obtained. Compared to previous datasets<sup>6</sup>, the revisited version of the KOF globalisation dataset represents the most comprehensive outlook for trade globalisation and financial globalisation (Gygli et al., 2019). The *de jure* measures of "financial globalisation" include capital account openness, investment agreements, and investment regulations, while *de jure* measures of "trade globalisation" consider tariffs, trade regulations, trade agreements, and trade taxes. Besides, the *de facto* financial globalisation measures consist of the FDI and portfolio investments, international debt, international reserves, and global income payments.

In contrast, the *de facto* measures of "trade globalisation" measure is trade openness (calculated by both goods and services) and the trade market diversification. To the best of our knowledge, our paper is the first study in the literature investigating the determinants of the

<sup>&</sup>lt;sup>4</sup> Since the globalisation measures are defined annually, we use data at the highest frequency. We do not purify the business cycles using the annual frequency data instead of four-year or five-year average data.

<sup>&</sup>lt;sup>5</sup> We also report the results of low-income economies, whose Gross National Income (GNI) per capita is less than \$4,095 in the fiscal year of 2021.

<sup>&</sup>lt;sup>6</sup> For the details of the original KOF indices of globalisation, refer to Dreher (2006) and Gozgor (2018).

revisited KOF indices of economic globalisation. The details of the revisited measures of KOF indices of economic globalisation are retrieved from the KOF website.<sup>7</sup>

## 3.2.2 Policy Uncertainty Measures

The main variables of interest are the world uncertainty index (WUI) and the trade policy uncertainty index (TPUI), which are provided by Ahir et al. (2018 and 2019), respectively. Ahir et al. (2018 and 2019) construct the uncertainty indices, the WUI and the TPUI for 143 countries from 1996 to 2020, by using the frequencies of the words "uncertainty" and "trade policy uncertainty" (and their variants) in the Economist Intelligence Unit (EIU) country reports. The reports of the EIU comment on major economic and political issues in each state and analysis and forecasts on political and economic conditions, created by domestic analysts and the editorial board of the Economist. The values in the WUI and the TPUI are comparable across the countries since the raw counts are adjusted for each report's total number of words (Ahir et al., 2018 and 2019). The WUI is superior to other policy uncertainty measures since it firstly constructs an uncertainty index for a panel dataset of advanced and developing countries. Moreover, the WUI and the TPUI are the first uncertainty indices, which are comparable across countries. These characteristics make the WUI and the TPUI perfect measures to investigate their effects on economic globalisation indicators (Ahir et al., 2018 and 2019).

### 3.2.3 Control Variables

In this study, several control variables are used. Log per capita GDP and age dependency ratio are the main controls. Population and urban population are added in the estimations. External balance, inflation, and unemployment are included to capture the macroeconomic stance. These indicators are obtained from the World Development Indicators (WDI) database of the World Bank (2020). The government consumption and transfers and subsidies (share of GDP) are used to control the government's role in the economy since government size affects international

<sup>&</sup>lt;sup>7</sup> https://www.kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html.

trade (Rodrik, 1998). The related data are obtained from the Penn World Table (PWT) (version 9.1) of Feenstra et al. (2015) and the Economic Freedom in the World (EFW) dataset of Gwartney et al. (2020), respectively.

Besides, the institutional quality and political variables are included. According to Acemoglu et al. (2019), higher-quality institutions can decrease uncertainty on economic globalisation indicators, and formal institutions can be relevant to economic globalisation (Potrafke, 2015). Following Acemoglu et al. (2019), levels of executive constraints concept (index from 1 to 7) and the institutionalised democracy (index from 0 to 10) are included in the benchmark estimations to analyse whether the baseline results vary with these indicators. The related data are obtained from the Polity IV Annual Time Series of Marshall et al. (2019). The index of Economic Freedom is used, and the data are provided by the EFW dataset of Gwartney et al. (2020). Note that the index of Economic Freedom contains values from 0 to 10, and a higher value demonstrates greater market deregulation, thus higher economic freedom.

The index of total summed magnitudes of conflicts (index from 0 to 10) is added. The data is obtained from the Major Episodes of Political Violence Database of Marshall (2019). Following Jha and Gozgor (2019), the indices of the absolute redistribution and the market income inequality of Solt (2020) are included because a higher level of income inequality can increase uncertainty transmission to economic globalisation indicators. Finally, following Meinhard and Potrafke (2012), the role of human capital (the index is based on the PWT data) is controlled in the baseline regressions.

# 3.2.4 Preliminary Analysis

The descriptive statistics of the variables used are reported in Appendix Table I. The correlation matrix for the main variables in the empirical estimations is also given in Appendix Table II. All correlations among the indicators of economic globalisation are positive. Also, the correlations between economic globalisation indicators and uncertainty measures are generally

positive (except the *de jure* measure of financial globalisation). Appendix Table II also suggests that the unconditional correlation between uncertainty and economic globalisation is almost zero. There is also a positive correlation between economic globalisation and per capita GDP and a negative correlation between economic globalisation and the age-dependency ratio.

## 4. Empirical Findings

#### 4.1 System GMM Estimations

Table 1 provides the System GMM estimations results for the baseline regressions for the WUI in Eq. (1), where nine indices of economic globalisation are the dependent variables.

[Insert Table 1 around here]

Table 2 displays the findings of the System GMM estimations for the baseline regressions for the TPUI in Eq. (2), where nine indices of economic globalisation are the dependent variables.

[Insert Table 2 around here]

In so doing, possible endogeneity bias and reverse causality issues, decreasing the level of economic globalisation can increase uncertainty (e.g., it can lead to tax-regime change, thus increasing policy uncertainty). The System GMM estimators solve this potential problem if the conditions for diagnostics are fulfilled. According to the results of the Sargan test, there is no "over-identification" issue. There is a significant first-order autocorrelation, but there is no second-order autocorrelation, according to the Arellano-Bond autocorrelation tests' findings. In short, the exclusion restriction of the internal instruments is valid in the system GMM estimations in Tables 1 and 2.

It is also observed that there is a statistically significant and high-level persistence in the dependent variables. It is found that a higher level of uncertainty leads to a lower level of economic globalisation. The main controls (per capita GDP and age-dependency ratio) are

positively related to economic globalisation indices. In short, uncertainty negatively affects economic globalisation even after addressing the potential issues of endogeneity and reverse causality.

# 4.2 Countries at the Different Stages of Economic Development

The paper also investigates whether the system GMM estimations' benchmark results vary according to countries' income levels. Therefore, the paper assesses the effect on low-income economies, defined as countries where per capita GNI is less than \$4,095 in the fiscal year of 2021, following the spirit of Jha and Gozgor (2019). Low-income economies are expected to be more vulnerable to economic policy uncertainty shocks than middle-income and high-income countries. We also consider OECD countries since most countries are developed economies (Potrafke, 2017).

Tables 3 and 4 provide the results for low-income economies and OECD countries, respectively.

[Insert Table 3 around here]

The results show that the WUI is negatively related to nine economic globalisation indices in low-income and OECD countries. Besides, most of the coefficients are statistically significant at the 5% level, except the de facto financial globalisation index for the results in low-income economies.

[Insert Table 4 around here]

We also report the baseline regressions for the TPUI in low-income economies in Table 5 and OECD countries in Table 6, respectively.

[Insert Table 5 around here]

Tables 5 and 6 indicate that the TPUI is negatively associated with nine indices of economic globalisation both in the low-income economies and OECD countries. Besides, most

of the coefficients are statistically significant at the 10% level, except the de jure financial globalisation index in low-income economies.

[Insert Table 6 around here]

In short, there are significant adverse effects of uncertainty measures on the indices of economic globalisation. Additional robustness checks are performed in the next section by including additional controls and excluding outliers from the sample.

#### **5.** Robustness Checks

### 5.1 Additional Controls

Table 7 reports the system GMM estimations' results by adding a representative of regressions, including the controls one at a time. Here, three economic globalisation measures are used (indices of the overall economic globalisation, de facto economic globalisation, and de jure economic globalisation) as the dependent variables.

[Insert Table 7 around here]

Given that the baseline estimations include the per capita GDP and the age-dependency ratio, the paper addresses a potential "omitted variable bias" by adding additional controls. Firstly, subsidies and transfers are considered to account for the possibility that governments may increase their transfer expenditures as long as the level of globalisation increases (Rodrik, 1998). Similarly, the roles of macroeconomic stability and savings by using the inflation rate, unemployment rate, the external balance and the level of human capital, respectively, are assessed. Secondly, the institutional quality and political variables (i.e., economic freedom and democracy index) and the intrastate and interstate conflicts index are added. Thirdly, the income inequality index and the absolute redistribution are added because they can significantly influence the impact of uncertainty on globalisation due to the economic conditions and the political sphere (Dreher and Gaston, 2008). All results from the related robustness checks confirm the benchmark findings, which are the harmful effects of uncertainty on all economic globalisation indices, are robust, including additional controls. The coefficients of economic globalisation have negative signs as and they hold (even increase) the levels of statistical significance in each case.

#### 5.2 Sensitivity Analyses

Table 8 provides the sensitivity analysis results, which exclude the outliers and the countries from the specific regions and groups. The detailed results are based on the benchmark regressions in Eq. (1) and Eq. (2) using system GMM estimations for three economic globalisation indicators as the dependent variables.

[Insert Table 8 around here]

Here outliers are excluded from the measures of uncertainty and the indices of economic globalisation. Outliers are characterised by "observations which are more than two standard deviations away" from the average following Fang et al. (2021) and Jha and Gozgor (2019). The findings in Table 8, the baseline results are robust when outliers are excluded.

This part of the analysis excludes the countries in Sub-Saharan Africa, Latin America and the Caribbean and developing East Asia and Pacific and the EU, in turn, to check the sensitivity of the baseline results. In so doing, Eq. (1) and Eq. (2) are re-estimated by excluding the observations from these countries one group at a time. The baseline results are robust to the exclusion of each group. It is observed that the baseline results are not determined by the presence of outliers or specific countries from these country groups.

The various sensitivity analyses indicate that the effects of uncertainty measures on the indices of economic globalisation are adverse, and the evidence is in line with the baseline results. The three channels discussed in the paper explain the negative coefficients of uncertainty on economic globalisation.

13

### 6. Conclusion

This paper analyses the role of policy uncertainty on various measures of economic globalisation over 1996–2016 in the panel dataset of 142 countries. Nine economic globalisation indices and two new uncertainty measures (the WUI and the TPUI) are considered to achieve the research objectives. It is observed that both the WUI and the TPUI are negatively associated with the overall index of economic globalisation. The de jure and the de facto measures of economic globalisation are considered. It is found that the TPUI has a significant negative impact on the de facto measures of economic globalisation. However, the WUI index is negatively related to the de jure measures of economic globalisation.

Furthermore, various robustness checks are used to verify that the effects of uncertainty on economic globalisation indicators are robust. Here, the analysis uses various alternative economic globalisation indicators and goes one step further and considers different uncertainty sources. The results for the countries at different income levels are also reported. Furthermore, various estimation procedures are applied to address potential "endogeneity bias" and "reverse causality issues." Different sets of controls are added to address potential "omitted variable bias." Finally, outliers are excluded. The findings of these robustness tests confirm those of the baseline estimations, thus demonstrating that the results are reliable. It is hence concluded that uncertainty is disadvantageous to sustainable globalisation.

Future papers on this subject can carry out comparative studies to assess where different countries are affected in the same way. Therefore, future papers can use the quarterly data and time-series estimation techniques to investigate the impact of policy uncertainty on globalisation indicators in large developing economies, such as Brazil, China, or India.

# References

- Acemoglu, D., Naidu, S., Restrepo, P., & Robinson, J.A. (2019). Democracy Does Cause Growth. *Journal of Political Economy*, 127(1), 47–100.
- Ahir, H., Bloom, N., & Furceri, D. (2018). *The World Uncertainty Index*. Stanford University, Stanford CA, Mimeo.
- Ahir, H., Bloom, N., & Furceri, D. (2019). *The Global Economy Hit by Higher Uncertainty*. https://voxeu.org/article/global-economy-hit-higher-uncertainty
- Arellano, M., & Bover, O. (1995). Another Look at the Instrumental Variable Estimation of Error-components Models. *Journal of Econometrics*, 68(1), 29–51.
- Baker, S.R., Bloom, N., & Davis, S.J. (2016). Measuring Economic Policy Uncertainty. *Quarterly Journal of Economics*, 131(4), 1593–1636.
- Bems, R., Johnson, R.C., & Yi, K–M. (2011). Vertical Linkages and the Collapse of Global Trade. *American Economic Review*, 101(3), 308–312.
- Bems, R., Johnson, R.C., & Yi, K-M. (2013). The Great Trade Collapse. Annual Review of Economics, 5(1), 375–400.
- Bloom, N. (2009). The Impact of Uncertainty Shocks. Econometrica, 77(3), 623-685.
- Bloom, N., Bond, S., & Van Reenen, J. (2007). Uncertainty and Investment Dynamics. *Review* of Economic Studies, 74(2), 391–415.
- Bloom, N., Floetotto, M., Jaimovich, N., Saporta–Eksten, I., & Terry, S.J. (2018). Really Uncertain Business Cycles. U.S. *Econometrica*, 86(3), 1031–1065.
- Blundell, R., & Bond, S. (1998). Initial Conditions and Moment Restrictions in Dynamic Panel Data Models. *Journal of Econometrics*, 87(1), 115–143.
- Carballo, J., Handley, K., & Limão, N. (2018). Economic and Policy Uncertainty: Export Dynamics and the Value of Agreements. *National Bureau of Economic Research* (*NBER*) Working Paper, No. 24368. Cambridge, MA: NBER.

- Constantinescu, C., Mattoo, A., & Ruta, M. (2017). Trade Developments in 2016: Policy Uncertainty Weighs on World Trade. Washington, DC: World Bank.
- Crowley, M.A., Exton, O., & Han, L. (2019). Renegotiation of Trade Agreements and Firm Exporting Decisions: Evidence from the Impact of Brexit on UK Exports. *Centre for Economic Policy Research (CEPR) Discussion Paper*, No: 13446, London: CEPR.
- Debaere, P., Glaser, T., & Willmann, G. (2015). Choosing between Protectionism and Free Trade in an Uncertain World. *Centre for Economic Policy Research (CEPR) Discussion Paper*, No: 10625, London: CEPR.
- Dominguez, K.M., & Shapiro, M.D. (2013). Forecasting the Recovery from the Great Recession: Is this Time Different? *American Economic Review*, 103(3), 147–152.
- Douch, M., & Edwards, T.H. (2021). The Bilateral Trade Effects of Announcement Shocks: Brexit as a Natural Field Experiment. *Journal of Applied Econometrics*, forthcoming, https://doi.org/10.1002/jae.2878
- Dreher, A. (2006). Does Globalisation Affect Growth? Evidence from a New Index of Globalisation. *Applied Economics*, 38(10), 1091–1110.
- Dreher, A., & Gaston, N. (2008). Has Globalization Increased Inequality? *Review of International Economics*, 16(3), 516–536.
- Feenstra, R.C., Inklaar, R., & Timmer, M.P. (2015). The Next Generation of the Penn World Table. American Economic Review, 105(10), 3150–3182.
- Fang, J., Gozgor, G., & Yan, C. (2021). Does Globalisation Alleviate Polarisation? World Economy, 44(4), 1031–1052.
- Gozgor, G. (2018). Robustness of the KOF Index of Economic Globalisation. *World Economy*, 41(2), 414–430.

- Gozgor, G. (2019). Effects of the Agricultural Commodity and the Food Price Volatility on Economic Integration: An Empirical Assessment. *Empirical Economics*, 56(1), 173–202.
- Graziano, A., Handley, K., & Limão, N. (2021). Brexit Uncertainty and Trade Disintegration. *Economic Journal*, 131(635), 1150–1185.
- Gwartney, J., Lawson, R., & Hall, J. (2020). *Economic Freedom of the World 2020 Annual Report*. Vancouver: Fraser Institute.
- Gygli, S., Haelg, F., Potrafke, N., & Sturm, J–E. (2019). The KOF Globalisation Index Revisited. *Review of International Organizations*, 14(3), 543–574.
- Handley, K. (2014). Exporting under Trade Policy Uncertainty: Theory and Evidence. *Journal of International Economics*, 94(1), 50–66.
- Handley, K., & Limão, N. (2015). Trade and Investment under Policy Uncertainty: Theory and Firm Evidence. *American Economic Journal: Economic Policy*, 7(4), 189–222.
- Handley, K., & Limão, N. (2017). Policy Uncertainty, Trade and Welfare: Theory and Evidence for China and the United States. *American Economic Review*, 107(9), 2731–2783.
- Jha, P., & Gozgor, G. (2019). Globalisation and Taxation: Theory and Evidence. *European Journal of Political Economy*, 59, 296–315.
- Kee, H–L., Neagu, C., & Nicita, A. (2013). Is Protectionism on the Rise? Assessing National Trade Policies during the Crisis of 2008. *Review of Economics and Statistics*, 95(1), 342–346.
- Limão, N., & Maggi, G. (2015). Uncertainty and Trade Agreements. *American Economic Journal: Microeconomics*, 7(4), 1–42.
- Marshall, M.G. (2019). *Major Episodes of Political Violence (MEPV) and Conflict Regions,* 1946–2018. Vienna, VA: Centre for Systemic Peace.

- Marshall, M.G., Gurr, T.R., & Jaggers, K. (2019). *Polity IV Project: Political Regime Characteristics and Transitions, 1800–2018.* Vienna, VA: Centre for Systemic Peace.
- Meinhard, S., & Potrafke, N. (2012). The Globalisation–welfare State Nexus Reconsidered. *Review of International Economics*, 20(2), 271–287.
- Novy, D., & Taylor, A.M. (2020). Trade and Uncertainty. *Review of Economics and Statistics*, 102(4), 749–765.
- Pierce, J.R., & Schott, P.K. (2016). The Surprisingly Swift Decline of US Manufacturing Employment. *American Economic Review*, 106(7), 1632–1662.
- Potrafke, N. (2015). The Evidence on Globalisation. World Economy, 38(3), 509–552.
- Potrafke, N. (2017). Partisan Politics: The Empirical Evidence from OECD Panel Studies. Journal of Comparative Economics, 45(4), 712–750.
- Rodrik, D. (1998). Why Do More Open Economies Have Bigger Governments? Journal of Political Economy, 106(5), 997–1032.
- Roodman, D. (2009). How to Do Xtabond2: An Introduction to Difference and System GMM in Stata. *Stata Journal*, 9(1), 86–136.
- Solt, F. (2020). Measuring Income Inequality across Countries and Over Time: The Standardised World Income Inequality Database. Social Science Quarterly, 101(3), 1183–1199.
- Tam, P.S. (2018). Global Trade Flows and Economic Policy Uncertainty. Applied Economics, 50(34–35), 3718–3734.
- Van Bergeijk, P.A. (2019). *DeGlobalisation 2.0: Trade and Openness During the Great Depression and the Great Recession*. Cheltenham: Edward Elgar Publishing.

World Bank (2020). World Development Indicators Dataset. Washington, D.C.: World Bank.

Regressors	Economic Globalisation (Overall)	Economic Globalisation (De Facto)	Economic Globalisation (De Jure)	Trade Globalisation (Overall)	Trade Globalisation (De Facto)	Trade Globalisation (De Jure)	Financial Globalisation (Overall)	Financial Globalisation (De Facto)	Financial Globalisation (De Jure)
Lagged Measures of Economic Globalisation	0.870*** (0.010)	0.909*** (0.008)	0.944*** (0.005)	0.903*** (0.011)	0.921*** (0.008)	0.902*** (0.009)	0.845*** (0.010)	0.860*** (0.006)	0.906*** (0.007)
Lagged $\Delta$ World Uncertainty Index	-2.087*** (0.320)	-0.306 (0.410)	-3.284*** (0.420)	-1.847*** (0.390)	-1.345*** (0.320)	-2.267*** (0.417)	-2.595*** (0.495)	-0.278 (0.398)	-5.117*** (0.611)
Log Real GDP per Capita	1.185*** (0.109)	0.738*** (0.091)	0.558*** (0.069)	0.658*** (0.097)	0.351*** (0.102)	1.028*** (0.110)	1.750*** (0.144)	1.728*** (0.117)	0.966*** (0.088)
Age Dependency Ratio	0.018*** (0.005)	0.004 (0.004)	0.018*** (0.002)	0.033*** (0.008)	0.012 (0.008)	0.050*** (0.006)	0.004 (0.006)	0.021*** (0.005)	0.012** (0.005)
Constant	-1.081 (0.876)	-0.450 (0.784)	-0.045 (0.425)	2.221** (1.002)	2.247 (1.411)	0.750 (0.720)	-5.578*** (1.132)	-6.989*** (1.101)	-1.881** (0.750)
Observations	2,547	2,547	2,514	2,528	2,547	2,490	2,547	2,547	2,547
Number of Countries	140	140	138	139	140	136	140	140	140
Sargan Test	0.45 [0.503]	1.21 [0.271]	0.27 [0.607]	0.09 [0.764]	1.08 [0.299]	0.19 [0.663]	0.06 [0.813]	0.32 [0.572]	2.83 [0.152]
AR(1)	-8.96 [0.000]	-7.52 [0.000]	-8.63 [0.000]	-8.12 [0.000]	-7.62 [0.000]	-7.37 [0.000]	-8.43 [0.000]	-6.65 [0.000]	-8.04 [0.000]
AR(2)	0.39 [0.694]	-0.49 [0.622]	0.40 [0.692]	0.83 [0.409]	-0.99 [0.320]	-0.40 [0.689]	2.79 [0.124]	2.76 [0.118]	0.90 [0.369]

 Table 1

 System–GMM Estimations: World Uncertainty Index and Economic Globalisation

Notes: The dependent variables are nine different measures of economic globalisation. The Sargan test shows the results of the over-identifying restrictions (null hypothesis: the over-identifying restrictions are valid). AR(1) and AR(2) show the results of the LM statistics for the Arellano–Bond autocorrelation test (null hypothesis: no first-order autocorrelation and no second-order autocorrelation, respectively). The robust standard errors are in the parentheses, and the p–values are in the brackets. \*\*\*, \*\*, and \* indicate the statistical significance at 1%, 5%, and 10% levels, respectively.

Regressors	Economic Globalisation (Overall)	Economic Globalisation (De Facto)	Economic Globalisation (De Jure)	Trade Globalisation (Overall)	Trade Globalisation (De Facto)	Trade Globalisation (De Jure)	Financial Globalisation (Overall)	Financial Globalisation (De Facto)	Financial Globalisation (De Jure)
Lagged Measures of Economic Globalisation	0.889*** (0.002)	0.881*** (0.004)	0.963*** (0.003)	0.901*** (0.009)	0.894*** (0.007)	0.906*** (0.006)	0.855*** (0.003)	0.847*** (0.008)	0.913*** (0.002)
Lagged $\Delta$ Trade Policy Uncertainty Index	-0.121*** (0.029)	-0.275*** (0.041)	-0.027 (0.020)	-0.329*** (0.038)	-0.473*** (0.041)	-0.130*** (0.023)	-0.045 (0.028)	-0.064* (0.035)	-0.163 (0.310)
Log Real GDP per Capita	1.036*** (0.054)	0.938*** (0.072)	0.346*** (0.044)	0.666*** (0.079)	0.304*** (0.094)	0.981*** (0.084)	1.718*** (0.087)	1.976*** (0.105)	0.889*** (0.058)
Age Dependency Ratio	0.009* (0.005)	0.007 (0.006)	0.014*** (0.002)	0.037*** (0.007)	0.016** (0.007)	0.050*** (0.005)	0.018*** (0.005)	0.040*** (0.006)	0.002 (0.004)
Constant	-1.531** (0.749)	-1.291 (0.931)	0.427 (0.450)	2.592** (1.135)	4.298*** (1.373)	0.909 (0.670)	-6.796*** (0.989)	-9.485*** (1.007)	-2.321*** (0.671)
Observations	2,547	2,547	2,514	2,528	2,547	2,490	2,547	2,547	2,547
Number of Countries	140	140	138	139	140	136	140	140	140
Sargan Test	0.05 [0.829]	0.36 [0.548]	0.31 [0.576]	0.02 [0.875]	2.83 [0.127]	1.60 [0.254]	0.38 [0.539]	0.26 [0.610]	0.92 [0.356]
AR(1)	-9.02 [0.000]	-7.52 [0.000]	-8.73 [0.000]	-8.07 [0.000]	-7.65 [0.000]	-7.51 [0.000]	-8.57 [0.000]	-6.66 [0.000]	-7.96 [0.000]
AR(2)	0.28 [0.779]	-0.48 [0.634]	0.61 [0.539]	0.95 [0.340]	-1.07 [0.285]	-0.13 [0.895]	1.82 [0.108]	1.88 [0.104]	0.11 [0.745]

 Table 2

 System–GMM Estimations: Trade Policy Uncertainty Index and Economic Globalisation

Notes: The dependent variables are nine different measures of economic globalisation. The Sargan test shows the results of the over-identifying restrictions (null hypothesis: the over-identifying restrictions are valid). AR(1) and AR(2) show the results of the LM statistics for the Arellano–Bond autocorrelation test (null hypothesis: no first-order autocorrelation and no second-order autocorrelation, respectively). The robust standard errors are in the parentheses, and the p–values are in the brackets. \*\*\*, \*\*, and \* indicate the statistical significance at 1%, 5%, and 10% levels, respectively.

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Regressors	Economic Globalisation (Overall)	Economic Globalisation (De Facto)	Economic Globalisation (De Jure)	Trade Globalisation (Overall)	Trade Globalisation (De Facto)	Trade Globalisation (De Jure)	Financial Globalisation (Overall)	Financial Globalisation (De Facto)	Financial Globalisation (De Jure)
Lagged Measures of Economic Globalisation	0.964*** (0.003)	0.931*** (0.003)	0.972*** (0.005)	0.999*** (0.006)	0.966*** (0.002)	0.995*** (0.003)	0.925*** (0.004)	0.889*** (0.002)	0.932*** (0.003)
Lagged $\Delta$ World Uncertainty Index	-1.944*** (0.181)	-0.597*** (0.159)	-2.707*** (0.286)	-0.812*** (0.291)	-1.336*** (0.325)	-0.503** (0.249)	-2.961*** (0.169)	-0.256 (0.178)	-5.532*** (0.264)
Log Real GDP per Capita	0.365*** (0.040)	0.780*** (0.020)	0.052 (0.084)	0.021 (0.055)	0.542*** (0.047)	0.424*** (0.075)	0.950*** (0.064)	1.618*** (0.059)	0.698*** (0.034)
Age Dependency Ratio	0.041*** (0.002)	0.005* (0.003)	0.061*** (0.003)	0.070*** (0.003)	0.018*** (0.004)	0.105*** (0.003)	0.035*** (0.002)	0.020*** (0.002)	0.048*** (0.002)
Observations	1,417	1,417	1,398	1,398	2,417	1,386	1,417	1,417	1,417
Number of Countries	76	76	75	75	76	74	76	76	76
Sargan Test	0.80 [0.371]	1.17 [0.279]	-0.57 [0.999]	-0.18 [0.999]	0.08 [0.780]	0.62 [0.431]	-0.51 [0.999]	0.47 [0.492]	1.19 [0.275]
AR(1)	-6.59 [0.000]	-5.65 [0.000]	-6.49 [0.000]	-6.27 [0.000]	-5.98 [0.000]	-5.16 [0.000]	-6.54 [0.000]	-5.92 [0.000]	-5.91 [0.000]
AR(2)	-0.31 [0.760]	-1.02 [0.307]	0.54 [0.586]	0.36 [0.716]	-1.03 [0.304]	0.41 [0.693]	0.80 [0.425]	-0.12 [0.907]	0.59 [0.558]

 Table 3

 System–GMM Estimations: World Uncertainty Index and Sub-Indices of Economic Globalisation (Low-Income Economies)

Notes: The Sargan test shows the over-identifying restrictions' results (null hypothesis: the over-identifying restrictions are valid). AR(1) and AR(2) show the results of the LM statistics for the Arellano–Bond autocorrelation test (null hypothesis: no first-order autocorrelation and no second-order autocorrelation, respectively). The robust standard errors are in the parentheses, and the p–values are in the brackets. \*\*\*, \*\*, and \* indicate the statistical significance at 1%, 5%, and 10% levels, respectively.

 Table 4

 System–GMM Estimations: World Uncertainty Index and Sub-Indices of Economic Globalisation (OECD Countries)

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Regressors	Economic Globalisation (Overall)	Economic Globalisation (De Facto)	Economic Globalisation (De Jure)	Trade Globalisation (Overall)	Trade Globalisation (De Facto)	Trade Globalisation (De Jure)	Financial Globalisation (Overall)	Financial Globalisation (De Facto)	Financial Globalisation (De Jure)
Lagged Measures of Economic Globalisation	0.907*** (0.018)	0.943*** (0.006)	0.830*** (0.011)	0.943*** (0.012)	0.949*** (0.011)	0.857*** (0.013)	0.844*** (0.023)	0.884*** (0.012)	0.795*** (0.008)
Lagged $\Delta$ World Uncertainty Index	-5.394*** (0.182)	-3.534*** (0.258)	-7.133*** (0.664)	-2.911*** (0.412)	-4.043*** (0.487)	-2.268*** (0.255)	-7.330*** (0.441)	-2.849*** (0.386)	-11.21*** (0.861)
Log Real GDP per Capita	0.121 (0.397)	0.007 (0.237)	0.125 (0.202)	0.223 (0.201)	0.054 (0.160)	0.076 (0.067)	1.092** (0.491)	1.354*** (0.482)	0.221 (0.337)
Age Dependency Ratio	-0.001 (0.011)	-0.044*** (0.012)	0.025** (0.012)	-0.005 (0.012)	-0.061*** (0.018)	0.048*** (0.016)	-0.019 (0.018)	-0.038*** (0.010)	0.001 (0.028)
Observations	627	627	627	627	627	627	627	627	627
Number of Countries	33	33	33	33	33	33	33	33	33
Sargan Test	0.01 [0.999]	0.00 [0.949]	-0.13 [0.999]	0.00 [0.966]	0.00 [0.967]	0.03 [0.868]	0.63 [0.428]	-0.01 [0.999]	0.00 [0.979]
AR(1)	-4.10 [0.000]	-4.30 [0.000]	-4.27 [0.000]	-4.44 [0.000]	-4.15 [0.000]	-3.81 [0.000]	-4.14 [0.000]	-3.57 [0.000]	-4.36 [0.000]
AR(2)	-1.84 [0.066]	-0.77 [0.441]	-1.53 [0.127]	-1.84 [0.066]	-1.22 [0.224]	-1.51 [0.132]	-0.81 [0.417]	-0.78 [0.436]	-0.98 [0.329]

Notes: The Sargan test shows the over-identifying restrictions' results (null hypothesis: the over-identifying restrictions are valid). AR(1) and AR(2) show the results of the LM statistics for the Arellano–Bond autocorrelation test (null hypothesis: no first-order autocorrelation and no second-order autocorrelation, respectively). The robust standard errors are in the parentheses, and the p–values are in the brackets. \*\*\*, \*\*, and \* indicate the statistical significance at 1%, 5%, and 10% levels, respectively.

Economic Globalisation Economic Globalisation Economic Globalisation Trade Globalisation Trade Globalisation Trade Globalisation Financial Globalisation Financial Globalisation Financial Globalisation Regressors (Overall) (De Facto) (De Jure) (Overall) (De Facto) (De Jure) (Overall) (De Facto) (De Jure) 0.970\*\*\* (0.001) 0.977\*\*\* (0.002) 0.995\*\*\* (0.002) 0.974\*\*\* (0.002) 0.979\*\*\* (0.003) Lagged Measures of Economic Globalisation 0.941\*\*\* (0.003) 0.939\*\*\* (0.002)  $0.892^{***}(0.005)$ 0.943\*\*\* (0.002) Lagged ATrade Policy Uncertainty Index -0.177 \* \* \* (0.011)-0.340 \* \* \* (0.017)-0.027\* (0.014) -0.374 \*\*\* (0.008) $-0.533^{***}(0.024)$ -0.201 \*\*\* (0.018)-0.016(0.022)-0.150 \*\*\* (0.029)-0.152(0.223)0.785\*\*\* (0.035) 0.537\*\*\* (0.062) Log Real GDP per Capita 0.347\*\*\* (0.036) 0.806\*\*\* (0.032) 0.041 (0.042) 0.059\* (0.031) 0.660\*\*\* (0.052) 0.094 (0.074) 1.639\*\*\* (0.138) 0.050\*\*\* (0.002) 0.028\*\*\* (0.003) 0.059\*\*\* (0.003) 0.070\*\*\* (0.002) 0.048\*\*\* (0.003) 0.091\*\*\* (0.002) 0.039\*\*\* (0.001) 0.037\*\*\* (0.003) 0.043\*\*\* (0.002) Age Dependency Ratio Observations 1,417 1,417 1,398 1,398 1,417 1,386 1,417 1,417 1,417 Number of Countries 76 76 75 75 76 74 76 76 76 0.02 [0.879] 0.73 [0.394] -0.32 [0.999] 0.12 [0.729] 0.34 [0.558] -0.39 [0.999] -0.08 [0.999] -0.32 [0.999] Sargan Test 0.25 [0.619] AR(1) -6.60 [0.000] -5.62 [0.000] -6.59 [0.000] -6.33 [0.000] -5.99 [0.000] -5.19 [0.000] -6.58 [0.000] -5.90 [0.000] -5.87 [0.000] AR(2) -0.09 [0.929] -0.90 [0.369] 0.74 [0.461] 0.57 [0.567] -0.89 [0.371] 0.44 [0.659] 0.90 [0.366] -0.07 [0.940] 0.69 [0.487]

 Table 5

 System–GMM Estimations: Trade Policy Uncertainty Index and Sub-Indices of Economic Globalisation (Low-Income Economies)

Notes: The Sargan test shows the over-identifying restrictions' results (null hypothesis: the over-identifying restrictions are valid). AR(1) and AR(2) show the results of the LM statistics for the Arellano–Bond autocorrelation test (null hypothesis: no first-order autocorrelation and no second-order autocorrelation, respectively). The robust standard errors are in the parentheses, and the p–values are in the brackets. \*\*\*, \*\*, and \* indicate the statistical significance at 1%, 5%, and 10% levels, respectively.

Table 6 System–GMM Estimations: Trade Policy Uncertainty Index and Sub-Indices of Economic Globalisation (OECD Countries)

System e	System Grant Estimations, Trade Foney encortainty match and Sub matches of Economic Grobalisation (OEOD Countries)									
Regressors	Economic Globalisation (Overall)	Economic Globalisation (De Facto)	Economic Globalisation (De Jure)	Trade Globalisation (Overall)	Trade Globalisation (De Facto)	Trade Globalisation (De Jure)	Financial Globalisation (Overall)	Financial Globalisation (De Facto)	Financial Globalisation (De Jure)	
Lagged Measures of Economic Globalisation	0.911*** (0.012)	0.928*** (0.008)	0.822*** (0.013)	0.939*** (0.010)	0.941*** (0.010)	0.858*** (0.008)	0.846*** (0.009)	0.878*** (0.006)	0.803*** (0.012)	
Lagged $\Delta$ Trade Policy Uncertainty Index	-0.190** (0.093)	-0.218* (0.119)	-0.265*** (0.051)	-0.323*** (0.113)	-0.213* (0.108)	-0.396*** (0.079)	-0.129* (0.071)	-0.148** (0.075)	-0.181*** (0.047)	
Log Real GDP per Capita	0.019 (0.325)	0.260 (0.199)	0.209 (0.174)	0.177 (0.212)	0.177 (0.299)	0.185* (0.109)	0.994*** (0.109)	1.308*** (0.343)	0.372* (0.207)	
Age Dependency Ratio	0.001 (0.012)	-0.069*** (0.020)	0.034** (0.017)	0.003 (0.013)	-0.074*** (0.022)	0.021* (0.012)	0.002 (0.016)	-0.062*** (0.013)	0.065*** (0.019)	
Observations	627	627	627	627	627	627	627	627	627	
Number of Countries	33	33	33	33	33	33	33	33	33	
Sargan Test	0.00 [0.999]	-0.02 [0.999]	-0.02 [0.999]	0.00 [0.999]	0.41 [0.523]	0.00 [0.999]	0.01 [0.923]	0.03 [0.852]	0.01 [0.922]	
AR(1)	-3.87 [0.000]	-4.04 [0.000]	-4.49 [0.000]	-4.44 [0.000]	-4.04 [0.000]	-3.92 [0.000]	-3.97 [0.000]	-3.56 [0.000]	-4.30 [0.000]	
AR(2)	-1.24 [0.214]	-1.52 [0.129]	-0.62 [0.535]	-2.60 [0.107]	-2.78 [0.105]	-1.29 [0.198]	-0.32 [0.747]	-0.95 [0.342]	-0.29 [0.770]	

Notes: The Sargan test shows the over-identifying restrictions' results (null hypothesis: the over-identifying restrictions are valid). AR(1) and AR(2) show the results of the LM statistics for the Arellano–Bond autocorrelation test (null hypothesis: no first-order autocorrelation and no second-order autocorrelation, respectively). The robust standard errors are in the parentheses, and the p–values are in the brackets. \*\*\*, \*\*, and \* indicate the statistical significance at 1%, 5%, and 10% levels, respectively.

	Including			
Sensitivity Analysis:	Regressors	Economic Globalisation (Overall)	Economic Globalisation (De Facto)	Economic Globalisation (De Jure)
Results of the Benchmark Regressions	Lagged $\Delta$ World Uncertainty Index	-2.087*** (0.320)	-0.306 (0.410)	-3.284*** (0.420)
Results of the Benchmark Regressions	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.121*** (0.029)	-0.275*** (0.041)	-0.027 (0.020)
Including Subsidies and Transfers	Lagged $\Delta$ World Uncertainty Index	-2.310*** (0.327)	-0.128 (0.381)	-3.857*** (0.525)
Including Subsidies and Transfers	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.085*** (0.020)	-0.276*** (0.043)	-0.065*** (0.021)
Including Index of Economic Freedom	Lagged $\Delta$ World Uncertainty Index	-2.143*** (0.341)	-0.584 (0.486)	-3.806*** (0.469)
Including Index of Economic Freedom	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.094*** (0.026)	-0.260*** (0.042)	-0.017 (0.026)
Including Index of Democracy	Lagged $\Delta$ World Uncertainty Index	-2.079*** (0.315)	-0.362 (0.427)	-3.675*** (0.403)
Including Index of Democracy	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.122*** (0.030)	-0.255*** (0.043)	-0.027 (0.022)
Including Intra and Interstate Conflicts	Lagged $\Delta$ World Uncertainty Index	-2.116*** (0.376)	-0.381 (0.428)	-3.494*** (0.436)
Including Intra and Interstate Conflicts	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.122*** (0.030)	-0.275*** (0.040)	-0.029 (0.023)
Including Human Capital Level	Lagged $\Delta$ World Uncertainty Index	-2.773*** (0.347)	-0.289 (0.445)	-5.733*** (0.428)
Including Human Capital Level	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.153*** (0.031)	-0.351*** (0.050)	-0.064** (0.025)
Including Unemployment Rate	Lagged $\Delta$ World Uncertainty Index	-2.183*** (0.301)	-0.400 (0.407)	-3.640*** (0.546)
Including Unemployment Rate	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.087*** (0.032)	-0.258*** (0.045)	-0.033 (0.027)
Including Inflation Rate	Lagged $\Delta$ World Uncertainty Index	-2.274*** (0.297)	-0.976** (0.394)	-3.208*** (0.432)
Including Inflation Rate	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.144*** (0.033)	-0.272*** (0.025)	-0.082*** (0.020)
Including External Trade Balance	Lagged $\Delta$ World Uncertainty Index	-2.231*** (0.361)	-0.160 (0.416)	-3.156*** (0.438)
Including External Trade Balance	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.124*** (0.030)	-0.290*** (0.049)	-0.064*** (0.018)
Including Index of Redistribution	Lagged $\Delta$ World Uncertainty Index	-1.877*** (0.336)	-0.086 (0.364)	-3.488*** (0.413)
Including Index of Redistribution	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.077*** (0.020)	-0.271*** (0.026)	-0.067*** (0.024)
Including Index of Income Inequality	Lagged $\Delta$ World Uncertainty Index	-2.438*** (0.306)	-0.423 (0.303)	-3.735*** (0.341)
Including Index of Income Inequality	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.130*** (0.021)	-0.343*** (0.023)	-0.027 (0.021)

Table 7Including Additional Controls

Notes: The robust standard errors are in the parentheses. \*\*\*, \*\*, and \* indicate the statistical significance at 1%, 5%, and 10% levels, respectively.

Sensitivity Analysis:	Regressors	Economic Globalisation (Overall)	Economic Globalisation (De Facto)	Economic Globalisation (De Jure)									
Results of the Benchmark Regressions	Lagged $\Delta$ World Uncertainty Index	-2.087*** (0.320)	-0.306 (0.410)	-3.284*** (0.420)									
Results of the Benchmark Regressions	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.121*** (0.029)	-0.275*** (0.041)	-0.027 (0.020)									
Excluding Extreme Units of Globalisation Measures	Lagged $\Delta$ World Uncertainty Index	-2.009*** (0.336)	-0.376 (0.455)	-4.430*** (0.439)									
Excluding Extreme Units of Globalisation Measures	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.127*** (0.029)	-0.370*** (0.041)	-0.068 (0.160)									
Excluding Extreme Units of Uncertainty Measures	Lagged $\Delta$ World Uncertainty Index	-3.055*** (0.327)	-1.028* (0.549)	-4.814*** (0.612)									
Excluding Extreme Units of Uncertainty Measures	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.173*** (0.035)	-0.168*** (0.021)	-0.294*** (0.026)									
Excluding European Union Countries	Lagged $\Delta$ World Uncertainty Index	-1.066*** (0.351)	-1.284*** (0.352)	-2.669*** (0.207)									
Excluding European Union Countries	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.041** (0.018)	-0.142*** (0.024)	-0.008 (0.019)									
Excluding Sub–Saharan African Countries	Lagged $\Delta$ World Uncertainty Index	-2.038*** (0.162)	-0.953*** (0.116)	-3.155*** (0.115)									
Excluding Sub–Saharan African Countries	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.113*** (0.006)	-0.354*** (0.011)	-0.130 (0.110)									
Excluding Latin American and Caribbean Countries	Lagged $\Delta$ World Uncertainty Index	-3.532*** (0.274)	-1.503*** (0.270)	-4.970*** (0.356)									
Excluding Latin American and Caribbean Countries	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.240*** (0.024)	-0.208*** (0.025)	-0.232*** (0.029)									
Excluding Developing East Asian Countries	Lagged $\Delta$ World Uncertainty Index	-1.426*** (0.294)	-0.158 (0.397)	-3.021*** (0.348)									
Excluding Developing East Asian Countries	Lagged $\Delta$ Trade Policy Uncertainty Index	-0.085*** (0.019)	-0.294*** (0.028)	-0.109 (0.144)									

Table 8 Sensitivity Analyses

Notes: The robust standard errors are in the parentheses. \*\*\*, \*\*, and \* indicate the statistical significance at 1%, 5%, and 10% levels, respectively.

Variables	Definition	Data Source	Mean	Standard Deviation	Minimum	Maximum	Observations
Economic Globalisation (Overall)	Index	KOF, ETH Zurich: Dreher (2006), Gygli et al. (2019)	55.53	16.21	17.44	95.43	2,982
Economic Globalisation (De Facto)	Index	KOF, ETH Zurich: Dreher (2006), Gygli et al. (2019)	55.10	16.75	16.70	98.62	2,982
Economic Globalisation (De Jure)	Index	KOF, ETH Zurich: Dreher (2006), Gygli et al. (2019)	56.16	19.94	14.62	94.86	2,940
Trade Globalisation (Overall)	Index	KOF, ETH Zurich: Dreher (2006), Gygli et al. (2019)	53.86	17.79	12.30	96.98	2,961
Trade Globalisation (De Facto)	Index	KOF, ETH Zurich: Dreher (2006), Gygli et al. (2019)	52.48	18.97	8.387	99.55	2,982
Trade Globalisation (De Jure)	Index	KOF, ETH Zurich: Dreher (2006), Gygli et al. (2019)	55.51	24.53	9.253	97.75	2,901
Financial Globalisation (Overall)	Index	KOF, ETH Zurich: Dreher (2006), Gygli et al. (2019)	57.17	17.17	10.99	94.23	2,982
Financial Globalisation (De Facto)	Index	KOF, ETH Zurich: Dreher (2006), Gygli et al. (2019)	57.75	19.26	12.43	98.18	2,982
Financial Globalisation (De Jure)	Index	KOF, ETH Zurich: Dreher (2006), Gygli et al. (2019)	56.57	19.30	2.003	93.16	2,982
World Uncertainty Index	Change of Index	www.policyuncertainty.com: Ahir et al. (2018 and 2019)	0.008	0.130	-0.651	0.696	2,840
Trade Policy Uncertainty Index	Change of Index	www.policyuncertainty.com: Ahir et al. (2018 and 2019)	0.008	0.894	-10.23	7.594	2,840
Real GDP per Capita (Constant 2010 USD Prices)	Logarithmic Form	World Development Indicators: World Bank (2020)	8.280	1.576	5.229	11.42	2,958
Age Dependency Ratio (% of Working-age Population)	Percentage	World Development Indicators: World Bank (2020)	64.01	19.70	16.45	113.2	2,977
Total Population	Logarithmic Form	World Development Indicators: World Bank (2020)	16.42	1.348	13.16	21.04	2,977
Urban Population (% of Total Population)	Percentage	World Development Indicators: World Bank (2020)	55.84	22.96	7.412	100.0	2,977
Share of Government Consumption at Current PPP GDPs	Percentage	Penn World Table (Version 9.1): Feenstra et al. (2015)	0.180	0.090	0.016	0.954	2,622
Transfers and Subsidies as a Share of GDP	Percentage	Fraser Institute: Gwartney et al. (2020)	9.157	7.875	0.000	30.08	1,977
Institutional Quality (Executive Constraints Concept)	Index from 1 to 7	Polity IV Annual Time-series: Marshall et al. (2019)	4.970	1.996	1.000	7.000	2,835
Index of Economic Freedom	Index from 0 to 10	Fraser Institute: Gwartney et al. (2020)	6.698	0.972	2.880	9.190	2,105
Level of Institutional Democracy	Index from 1 to 10	Polity IV Annual Time-series: Marshall et al. (2019)	5.558	3.810	0.000	10.00	2,835
Total Summed Magnitudes of All (Societal and Interstate) Conflicts	Index from 0 to 14	Major Episodes of Political Violence Database: Marshall (2019)	0.601	1.499	0.000	9.000	2,961
Human Capital per Person	Index	Penn World Table (Version 9.1): Feenstra et al. (2015)	2.387	0.710	1.053	3.734	2,394
Unemployment, Total (% of Total Labor Force) (National Estimates)	Percentage	World Development Indicators: World Bank (2020)	8.269	6.186	0.140	44.15	2,982
External Balance on Goods and Services (% of GDP)	Percentage	World Development Indicators: World Bank (2020)	-4.698	16.13	-161.4	48.45	2,892
Inflation (Consumer Prices, Annual %)	Percentage	World Development Indicators: World Bank (2020)	10.15	84.65	-16.11	4145	2,746
Absolute Redistribution	Index	Standardised World Income Inequality Database: Solt (2020)	0.058	0.071	-0.075	0.242	2,527
Market Income Inequality	Index	Standardised World Income Inequality Database: Solt (2020)	0.441	0.066	0.214	0.687	2,527

# Appendix Table I Summary of the Descriptive Statistics

Regressors	Economic Globalisation (Overall)	Economic Globalisation (De Facto)	Economic Globalisation (De Jure)	Trade Globalisation (Overall)	Trade Globalisation (De Facto)	Trade Globalisation (De Jure)	Financial Globalisation (Overall)	Financial Globalisation (De Facto)	Financial Globalisation (De Jure)	Log Real GDP per Capita	Age Dependency Ratio	∆ World Uncertainty Index	∆ Trade Policy Uncertainty Index
Economic Globalisation (Overall)	1.000	-	-	-	-	_	-	-	-	-	-	_	-
Economic Globalisation (De Facto)	0.864	1.000	-	-	-	-	-	-	-	—	-	_	-
Economic Globalisation (De Jure)	0.902	0.564	1.000	-	-	-	-	-	-	—	-	_	-
Trade Globalisation (Overall)	0.931	0.840	0.812	1.000	-	_	-	-	-	-	-	-	-
Trade Globalisation (De Facto)	0.655	0.873	0.335	0.772	1.000	_	-	-	-	-	-	_	-
Trade Globalisation (De Jure)	0.855	0.548	0.936	0.865	0.348	1.000	-	-	-	-	-	_	-
Financial Globalisation (Overall)	0.924	0.761	0.866	0.725	0.437	0.722	1.000	-	-	-	-	_	-
Financial Globalisation (De Facto)	0.858	0.879	0.655	0.705	0.538	0.615	0.892	1.000	-	-	-	_	-
Financial Globalisation (De Jure)	0.790	0.475	0.890	0.588	0.240	0.675	0.890	0.590	1.000	-	-	_	-
Log Real GDP per Capita	0.761	0.505	0.814	0.662	0.228	0.794	0.752	0.653	0.687	1.000	-	_	-
Age Dependency Ratio	-0.630	-0.417	-0.677	-0.643	-0.287	-0.726	-0.524	-0.445	-0.493	-0.745	1.000	_	-
$\Delta$ World Uncertainty Index	0.005	0.008	0.002	0.006	0.004	0.005	0.005	0.009	-0.001	-0.001	0.006	1.000	-
$\Delta$ Trade Policy Uncertainty Index	0.008	0.004	0.009	0.004	-0.005	0.011	0.010	0.013	0.005	0.011	-0.007	0.099	1.000

# Appendix Table II Correlation Matrix

# Data Appendix I List of Countries in the Panel Dataset (142 Countries)

Afghanistan, Albania, Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bangladesh, Belarus, Belgium, Benin, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, the Central African Republic, Chad, Chile, China, Colombia, Congo DR, Congo Republic, Costa Rica, Côte d'Ivoire, Croatia, the Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Eritrea, Ethiopia, Finland, France, Gabon, the Gambia, Georgia, Germany, Ghana, Greece, Guatemala, Guinea, Guinea-Bissau, Haiti, Honduras, Hong Kong SAR, Hungary, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Korea Republic, Kuwait, Kyrgyz Republic, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Lithuania, Madagascar, Malawi, Malaysia, Mali, Mauritania, Mexico, Moldova, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, the Netherlands, New Zealand, Nicaragua, Niger, Nigeria, North Macedonia, Norway, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, the Philippines, Poland, Portugal, Qatar, Romania, Russia, Rwanda, Saudi Arabia, Senegal, Sierra Leone, Singapore, Slovak Republic, Slovenia, South Africa, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Tajikistan, Tanzania, Thailand, Togo, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, the United Arab Emirates, the United Kingdom, the United States, Uruguay, Uzbekistan, Venezuela, Vietnam, Yemen, Zambia, and Zimbabwe.