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Michael Funke and Doudou Zhong

The political globalisation trilemma revisited: An empirical assessment across countries and over time

Abstract

The political hyperglobalisation trilemma asserts that a government cannot simultaneously opt for deep international integration, national sovereignty and democratic politics, but rather is constrained to choosing two of the three at most. This paper presents a new and comprehensive cross-country panel dataset operationalising the multifaceted three vertices of the trilemma. After an explorative data analysis, we employ panel error-correction techniques to uncover the mutual interdependencies among the variables in the system. The econometric evidence supports the existence of a long run relationship between economic integration, national sovereignty and democratic politics as postulated in the political globalisation trilemma.

Keywords: political trilemma, globalisation, democratic politics, national sovereignty

JEL codes: F60, F62, F15, F68

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1 Introduction

Globalisation can be defined as a phenomenon of increased economic integration among nations, characterised by the movement of products, people and ideas across borders. As economic integration has spread across continents, political and financial institutions have evolved to enhance and regulate the global marketplace.

The current wave of globalisation paved the way for much of post-war prosperity. The benefits of globalisation are essentially based on the positive-sum benefits of free trade. Countries gain from international trade through the principle of comparative advantage, which allows each nation to specialise in those activities it does best in light of its labour, natural resource and technology endowments. While free trade increases the world output of goods and services, its downside is the creation of losers in national industries that cannot compete with foreign manufacturers. Furthermore, the integration of unskilled-labour-abundant countries into the world economy leads to an expansion of the rich (skill-abundant) world's industries that use skilled labour intensively and a contraction of its unskilled-labour-intensive industries, thereby triggering a fall in the demand for unskilled labour and an increase in the demand for skills.¹ This dynamic in turn affects the income distribution in industrialised countries.² Likewise, global integration has made it easier for firms and individuals to avoid income and profit taxation by exploiting international loopholes. Corporate tax bases have eroded owing to transfer prices within international value chains, while tax competition between countries has led to a reduction of statutory tax rates (Devereux et al., 2008). Such degradation of established arrangements fuels anti-globalisation sentiment and resistance to free trade.

Against the background of these developments and policy debates, Dani Rodrik (2011) introduced a formulation of the political globalisation trilemma that quickly gained traction with political economists. According to Rodrik's (2011) impossibility theorem for the global economy, deep economic integration, national sovereignty (sometimes also referred to as nationally-distinct jurisdictions or the nation-state), and democratic politics are mutually incompatible. Equilibrium is only feasible by sacrificing one of the three components. In other words, in a globalised world, a country can have extensive economic integration, the nation-state or democratic politics, but not all

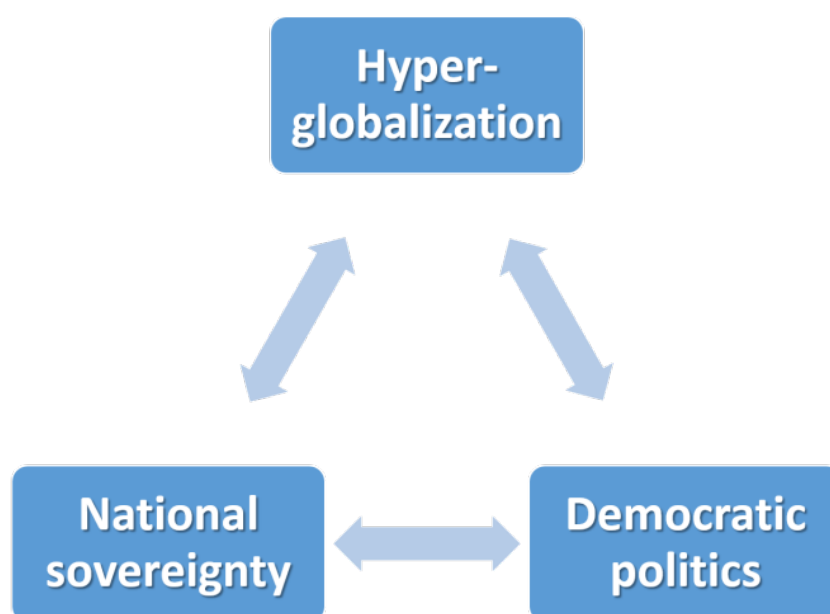
¹ Autor et al. (2013) provide compelling evidence that US metropolitan labour markets became more exposed to import competition from China after 2001 (the year China joined the WTO). They experienced significantly larger losses in employment and wages as compared to less exposed US metropolitan labour markets. At the same time, the skill premium increased. The China shock has also led to increased support for populist parties in the US and within 15 European countries (Autor et al., 2017; Colontane and Stanig, 2018a), and is significantly associated with the strength of the pro-Brexit vote in Britain's 2016 referendum (Colontane and Stanig, 2018b).

² Globalisation has undermined and squeezed the middle classes in many OECD countries. As a consequence, middle-class households feel left behind and question the benefits of globalisation (see, e.g. OECD, 2019).

three (at least, not fully). A nation can choose integration and the nation-state, and therefore sacrifice democratic control for technocratic, autocratic institutions. Alternatively, it can choose integration and democratic politics, giving up the nation-state and transferring or surrendering control of traditional government tasks to supranational institutions. Or it can choose the nation-state and democracy by embracing impoverished autarky.

Why has the combination of hyperglobalisation and democratic politics rendered difficult the attainment of national sovereignty? Essentially, globalisation constrains domestic economic policymaking and restricts the domestic policy space. Figure 1 illustrates this straitjacket.

Figure 1 Schematic of Rodrik's political globalisation trilemma



Rodrik's 2011 book, *The Global Paradox*, represents a significant and provocative contribution to the literature on globalisation, drawing on historical, political, philosophical and economic considerations. Like many great ideas, his proposed trilemma provides much food for thought.³ The attractiveness of this political globalisation trilemma concept results from three factors.

First, there are several countries that take up different prototype corner solutions in the “two out of three” trade-off. For example, China sticks with global economic integration and national sovereignty. The country's recent history shows that maintaining national sovereignty, in particular, has been a main policy goal. To this end, the triangle's third vertex, democracy, is sacrificed.

³ Rodrik's (2011) political hyperglobalisation trilemma is neither the first nor sole trilemma highlighted in the economic and political science literature. In the mid-nineties, Dahrendorf (1996, 1998) far-sightedly postulated a trilemma with the three vertices economic globalisation, social cohesion and liberal democracy. The quandary may result in a gridlock that threatens the principles of democracy and global cooperation. In view of the current discussion about the future shape of globalisation, Dahrendorf's (1996, 1998) trilemma quandary was clearly ahead of its time. Stein (2016) chronicles the trilemma debate.

Indeed, president Xi Jinping has gone so far as to undo even tentative steps towards political liberalisation carried out by his predecessors. At the other end of the spectrum, we see countries that have opted for the deeply integrated markets and democracy vertices. Prime examples include EU countries which have transferred essential competences and jurisdiction to European institutions. The Euroland (common currency) subset of EU countries sits even deeper in this integration and global governance category.⁴

Second, Rodrik's (2011) "squaring the circle" trilemma reflects the globalisation-critical zeitgeist showcased in the UK's Brexit debate. The political priorities revealed by the Brexit referendum are national sovereignty and democracy. The UK electorate voted to leave the EU and "take back control."

In the context of Brexit, the political globalisation trilemma implied three trade-offs: (i) retaining the benefits of the EU's single market and customs union and avoiding economic drawbacks, (ii) reclaiming national sovereignty by returning powers to the British parliament that currently lie with the European institutions, and (iii) upholding democratic principles by ensuring that the UK electorate has a say over all laws to which UK people are subject. The lengthy Brexit negotiations, characterised by numerous U-turns and breakdowns, stem precisely from the fact that the three vertices of the triangle are mutually incompatible. The parliament-approved interim Brexit deal expiring at the end of 2020 temporarily achieves (ii) and (iii), while sacrificing (i).

President Donald Trump's policy agenda is a similar attempt to increase national sovereignty at the expense of economic integration. Desiring to deglobalise the US, he has withdrawn from various international climate and trade agreements, and has provoked trade disputes with numerous countries. It remains to be seen whether the Trumpian worldview will lead to a longer-lasting deglobalisation process.⁵

Finally, Rodrik's (2011) inescapable trilemma is quite helpful to understand the "third wave of autocratisation" in recent years.⁶ Almost one-third of the world's population lives in countries undergoing autocratisation – a substantial decline of liberal democracy. Inter alia, these countries include Brazil, India, the United States ("America First"), as well as several Eastern European

⁴ In the context of the trilemma, attempts to create policy space at the EU- and/or Euroland-level can be interpreted as efforts to manage the challenges thrown up by global markets within the EU without retreating behind national borders. The EU gives member states a unique platform for recovering some of the state functions eroded by globalisation. The paradigmatic idea is that politics is not curtailed by the constraints of globalisation when it is relocated to the global level.

⁵ See Rodrik (2020) for an analysis of the causal pathways that link globalisation shocks to populism in the US.

⁶ For more, see e.g. Lüthmann and Lindberg (2019) or go to <https://www.v-dem.net/en/news/>. "Autocratisation" is any substantial and significant worsening on the scale of liberal democracy. It is a matter of degree and a phenomenon that can occur both in democracies and autocracies. Autocratisation is therefore an umbrella term that covers both erosion in democratic countries (democratic backsliding), breakdown of democracy, as well as worsening of conditions in electoral authoritarian countries. Semantically, it signals the opposite of democratisation, i.e. a move away from liberal democracy.

countries. Moreover, the world's leading autocracies, China and Russia, have influenced other countries to adopt their disdain for democracy.

Despite these insightful particular examples and case studies, critics have pointed to flaws in the framework. For example, governments can round the vertices of the triangle representing the trilemma with intermediate policies, which is to say that it is not so much the three corners that matter as the inner space they define. This leads to the question of whether the described trilemma is truly inescapable or whether work-arounds may exist. Accordingly, an empirical analysis beyond individual examples is the focus of the following inquiry.

The layout of the paper is as follows. In Section 2 we detail the measures of the vertices of the triangle. Subsequently, a detailed analysis of the space-time evolution of the three vertices of the political trilemma in a large panel country dataset is provided in Section 3. The aim here is to explore the empirical validity of Rodrik's (2011) straitjacket. To this end, Section 4 contains a panel cointegration and causality analysis of Rodrik's (2011) political globalisation trilemma in a large international country panel dataset. Section 5 offers a few concluding remarks.

2 Conceptualising and measuring the vertices of the triangle

In this section, we quantify the economic and political frictions of the triangle. The metrics should enable readers to compare the positioning of countries in the cross-section of countries and over time at a glance.

What is it that makes a country sovereign? Besides having to operationalise the multifaceted term "national sovereignty," which lacks a clear standard definition,⁷ we are constrained by the availability of data. From a state-centric perspective, a nation-state can be considered sovereign if it is on equal terms to other nation states in international law and has the final authority over everything that happens within its borders.⁸ In other words, we are dealing with the state's autonomy from other actors in the system and how the state is recognised by those actors. However, as the world becomes increasingly interconnected and globalised, the ability to act unilaterally gradually dissipates. In particular, national sovereignty and self-determination erode with the rise of international organisations and treaties. More precisely, therefore we should ask: What does national sovereignty amount to in an age of globalisation and deepened international cooperation?

Against this background, we also need to quantify the degree of constrained national sovereignty. Given the globalisation focus of Rodrik's (2011) trilemma, our sovereignty scale is centred

⁷ For alternative approaches to sovereignty with their underlying normative differences, see Kurtulus (2005).

⁸ Sovereignty has usually been associated with the "The Peace of Westphalia" (1648) drawing state boundaries and recognising each other's sovereignty on the condition of reciprocity. For more, see Krasner (1995).

on the external aspects of sovereignty as measured by the inverse of the KOF political globalisation index (hereafter SOV).⁹ The political globalisation index can be categorised as de jure or de facto. As we focus on policy effects, the baseline metric of interest is the de jure measure of political globalisation.¹⁰ The metric comprises the number of multilateral treaties signed since 1945, the number of memberships in international organisations, as well as a measure for treaty partner diversity. In other words, the metric measures the constraints on the decisional autonomy of sovereignty that national governments willingly agree to in order to further the forces of economic integration.

As a second step, we attempt to measure the degree of economic globalisation across countries. Digging one level deeper is necessary to identify those countries to which the characteristic “hyperglobalisation” most likely applies. As with the other vertices of the triangle, economic globalisation is a multifaceted phenomenon that encompasses much more than trade openness and international capital flows. Thus, separate composite globalisation index is needed. Here, we select the KOF Economic Globalisation Index (hereafter GLO). The metric comprises numerous tariffs, trade regulation, trade agreements, investment restrictions and capital account openness variables. GLO offers multidimensional design and coverage of a large number of countries and years, and further employs a comprehensive metric that measures the depth and breadth of globalisation. Again we employ the de jure metric to measure the politically desired extent of economic globalisation of countries.¹¹ One reason for this baseline choice is a desire to avoid scale effects. The role of domestic markets is typically greater in large economies than in smaller ones. This affects various de facto economic globalisation metrics.

The last triangle vertex specification concerns the variable “democracy.” New populist parties and peoples’ movements have been on the rise in Europe and worldwide for over a decade. While cultural factors may have contributed to this rise, it is widely established that globalisation has played at least some role.¹² One important economic dimension is rising inequality in terms of income, wealth and economic opportunity.¹³ In many countries this has led to a creeping erosion of the liberal model of democracy. To this end, the adopted measure of democracy is the “liberal democracy” index of the “Varieties of Democracy” project (<https://www.v-dem.net/en/>; hereafter

⁹ Given the methodological difficulties, there have been few attempts to quantify the concept of state sovereignty. One exception with many interesting real-world examples is that of Berg and Kuusk (2010). Their mapping of national sovereignty, however, is limited to 41 countries and solely for the year 2009.

¹⁰ See Gygli et al. (2019) for a thorough review of the current third version of the KOF Globalisation Index. The metric is the most widely-used globalisation index which encompasses 203 countries and spans from 1970 to 2017. The KOF Globalisation Index and the various sub-indices are available at <https://kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html>. Potrafke (2015) provides a review of 120 empirical studies that use the KOF Globalisation Index.

¹¹ Baldwin (2016) and Rodrik (2018) highlight policymaker intentions in explaining changes in de jure trade policies.

¹² See Norris and Inglehart (2019).

¹³ See <https://voxeu.org/article/many-forms-populism> and <https://voxeu.org/article/two-faces-populism>.

DEM). Liberal theories of democracy emphasise the importance of legal protection of individual freedoms, competitive elections and constraints on rulers. Correspondingly, the liberal democracy index consists of three sub-components, each captured with its own index: an equality before the law and individual liberty index, an index for judicial constraints on the executive, and an index for legislative constraints on the executive.¹⁴ The V-Dem Liberal Democracy Index scores the strength of democratic institutions from weak to strong based on expert survey data of both *de jure* and *de facto* aspects of political institutions.

All three metrics were normalised to a standardised measure between 1 and 10. Higher values mean higher scores in each instance i ($i = \text{GLO}, \text{SOV}, \text{DEM}$). The dataset comprises 165 countries over the period 2006–2017. The selection of countries have been determined by data availability for all three variables considered. In the following, we undertake an in-depth analysis of the mutual interrelationships among the three variables. This involves the use of several analytical tools, as well as robustness and specification tests.

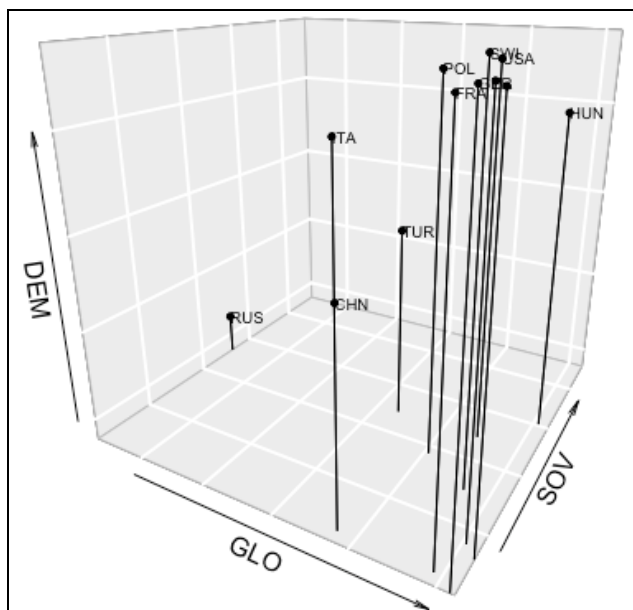
3 The space-time evolution of the three vertices of the triangle

We begin with a multivariate exploratory data analysis, taking to heart the old saying “a picture is worth a thousand words.” We use several visualisation approaches to illustrate the overarching story.

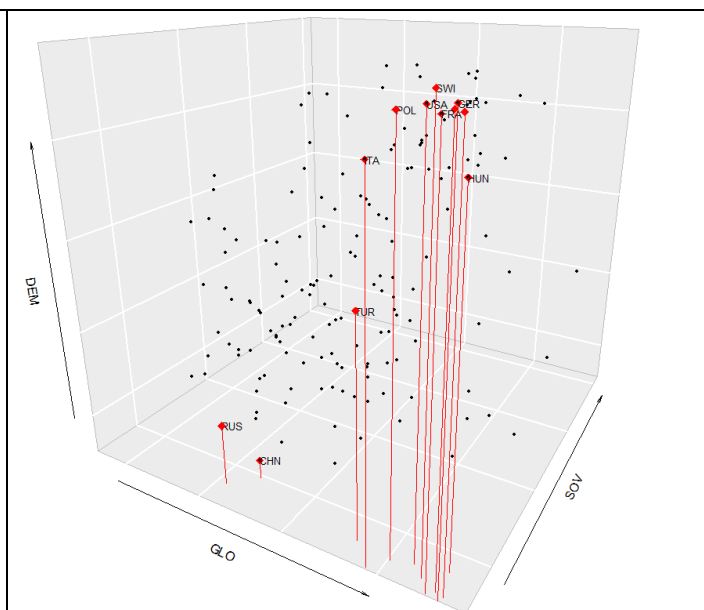
Figure 2 highlights the different positioning of countries within the political globalisation trilemma. The comparison is carried out for selected countries and entire datasets for the years 2008 and 2017, respectively. This comparison hopefully conveys an insight into the diversity of country-specific positionings in the three-dimensional trilemma. To visualise the mutual interrelationship of the three variables, the data are represented as a cloud of points in a three-dimensional (3D) scatterplot. Each dot in the graph represents a country. To sharpen the visualisation of the countries in three-dimensional space, we add vertical segments to the graph. The length of the vertical lines indicates the respective value on the z-axis. Naturally, our selection of countries in the left panels is subjective. It gives us an opportunity to highlight countries frequently mentioned in the political globalisation trilemma context along with countries that more likely represent borderline solutions. The aim is to single out individual countries and their heterogeneity from the anonymity of all 165 countries in the dataset.

¹⁴ A full discussion of the scholarly traditions behind these conceptions of democracy, with a comprehensive listing of sources, can be found in Coppedge et al. (2019), as well as in abbreviated form in Lindberg et al. (2014). For an exploration of the foundations of liberal democracies, see Mukand and Rodrik (2020).

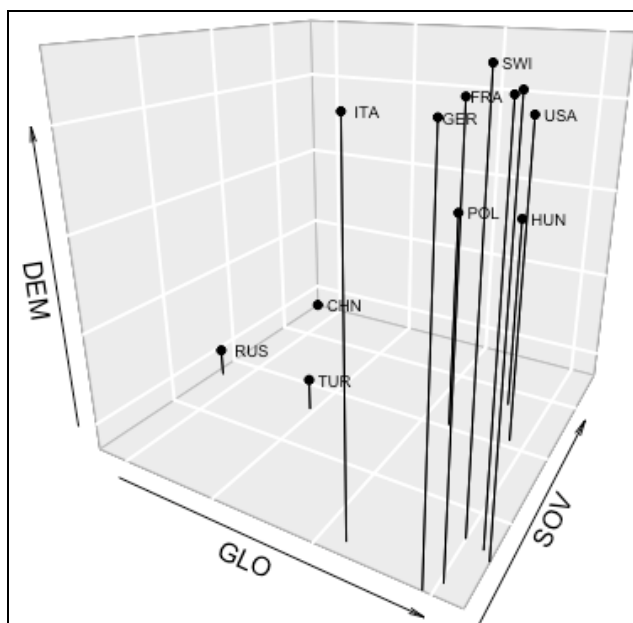
Figure 2 Visualising the positioning of countries in a 3D space
12 selected countries in 2008



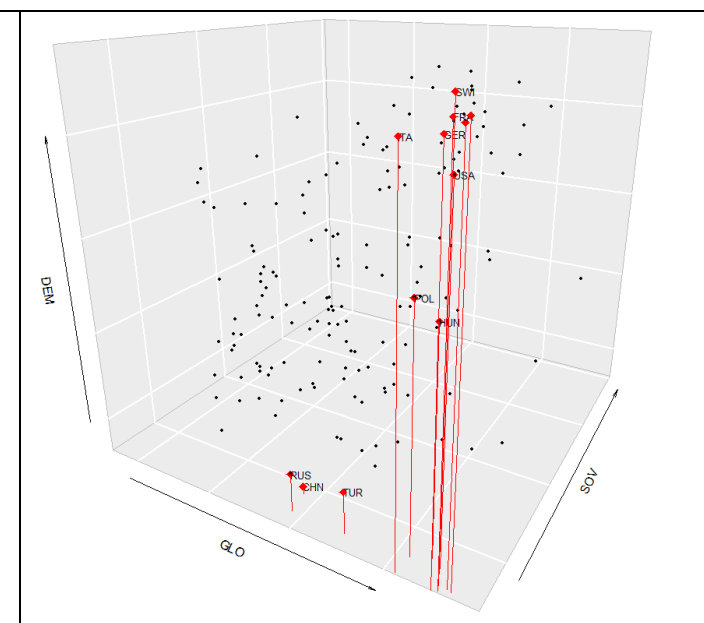
All 165 countries in 2008



12 selected countries in 2017



All 165 countries in 2017



Looking at the two left panels, we note a cluster of advanced economies that includes several EU countries with high liberal democracy indices. In most instances, these countries possess high economic globalisation metrics along with comparatively lower sovereignty metrics. In other words, liberal democratic politics seem to be the choice alongside economic globalisation with the role of the nation state left at the background (Nasstrom, 2003). Switzerland occupies a special position here and seems to contradict the political globalisation trilemma on all three counts. Switzerland is

not only a democratic country, Switzerland also has a long tradition of direct democracy. In terms of global economic integration, Switzerland is a small open economy which enjoys – without becoming an EU member – almost unrestricted access to the EU internal market. At the same time, no one guards their national sovereignty more fiercely than the Swiss.¹⁵

A second discernible cluster of countries, which includes China and Russia, is characterised by significantly lower democracy indices and higher national sovereignty metrics. It is apparent that while actively integrating into the global market, these countries have a higher preference for nation-state sovereignty at the risk of lower liberal democratic governance scores.

While the countries described so far take up comparatively similar metrics on all three vertices over time, a comparison along the timeline offers further insights. Position changes are particularly noticeable on the vertical z-axis. Authoritarian regimes of various stripes are not waning. If anything, they are becoming stronger, with China the clearest example. In many cases, the populism that supports nationalism and restricts globalisation has blossomed. Even in Europe, democratic reversals have occurred in recent years, most notably in Poland and Hungary. Turkey's descent into electoral authoritarianism and the comprehensive regime transformation following the failed coup in July 2016 is also clearly discernible. The crackdown on political opposition, media, academia and the civil society has led to democratic breakdown and regime change.

While the two left-hand scatterplots contain 12 selected countries, the two right-hand scatterplots provide mappings of the entire dataset of 165 countries. The previously selected 12 countries have been highlighted again. It can be seen that the remaining countries in the dataset possess a highly diverse combination of all three vertices. In order to detect possible patterns in the entire dataset, Figure 3 provides a different 3D illustration for all countries in the year 2017. In contrast to Figure 2, we have added a fitted two-dimensional (2D) regression-hyperplane. Furthermore, the countries are coloured using the variable GLO on the x-axis. The regression-hyperplane and the colour accentuations convey a visual feeling for the different positionings of the 165 countries in the context of the political globalisation trilemma trade-offs.

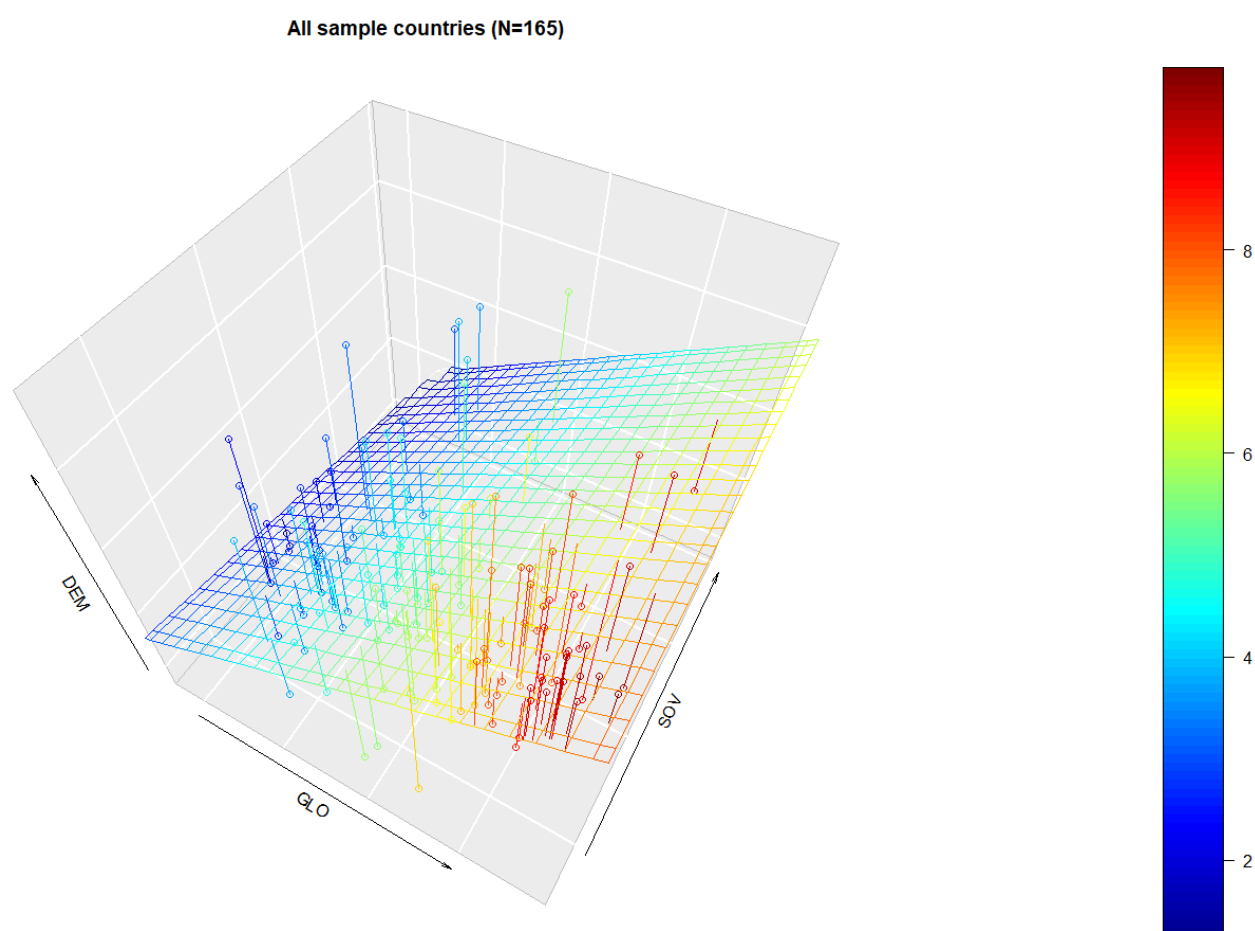
The take-away from Figure 3, despite the densely-packed data points and rather cluttered graph, is that the clusters within the 3D space are quite distinct. We see a cluster of red-coloured countries with a high economic integration metric. This corresponds to the cluster noted in Figure 2, but includes more countries. We also see a blue-coloured cluster of countries with (on average) lower globalisation and democracy metrics than countries in the red cluster. Some of the countries in this blue cluster have higher nation-state index readings than their red-cluster counterparts. In sum, the discernible pattern is that the countries in the blue cluster have a higher preference for

¹⁵ The exceptional case of Switzerland has won it the label “political trilemma champion.” See Weiß et al. (2018).

nation-state sovereignty at the risk of lower liberal democratic governance scores and less economic globalisation.

Beyond the red and blue clusters, we also see many countries adopting intermediate combinations of the three vertices of the political globalisation triangle. These countries are coloured in yellow, orange and light blue. The reason policymakers may select an intermediate solution is that they may wish to compromise in selecting the level of attainment of each of the three vertices of the triangle.

Figure 3 3D scatterplot and regression-hyperplane for 2017



Note: The points are coloured using the variable GLO. For the regression-hyperplane, the linear regression model $aGLO + bSOV + cDEM = 0$ has been computed.

As a final step in the exploratory data analysis, we employ pair-wise added-variable scatterplots (also known as partial regression plots) as a diagnostic to display the correlations between the three variables. An added-variable plot is a scatterplot of the transformations of an independent variable and the dependent variable that nets out the influence of all the other independent variables. In other words, it is a visually compelling method for showing the nature of the partial correlations in a multiple regression. To see the precision and statistical significance, we also provide confidence

intervals. When the confidence interval bounded by the dashed lines includes the zero line on the vertical axis, the slope of the regression line is not significantly different from zero at the 5% level.¹⁶ Again, each dot represents one country.

Figure 4 Pair-wise added-variable scatterplots for all countries in 2017

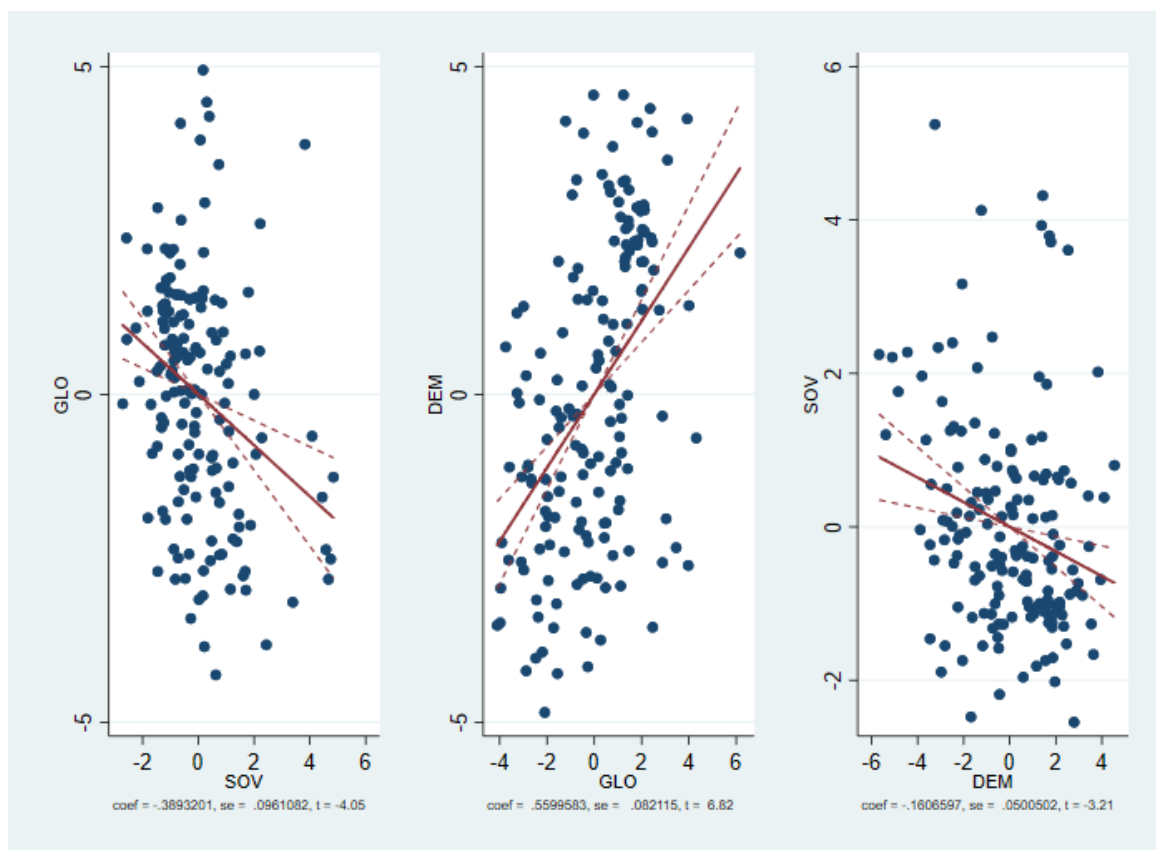


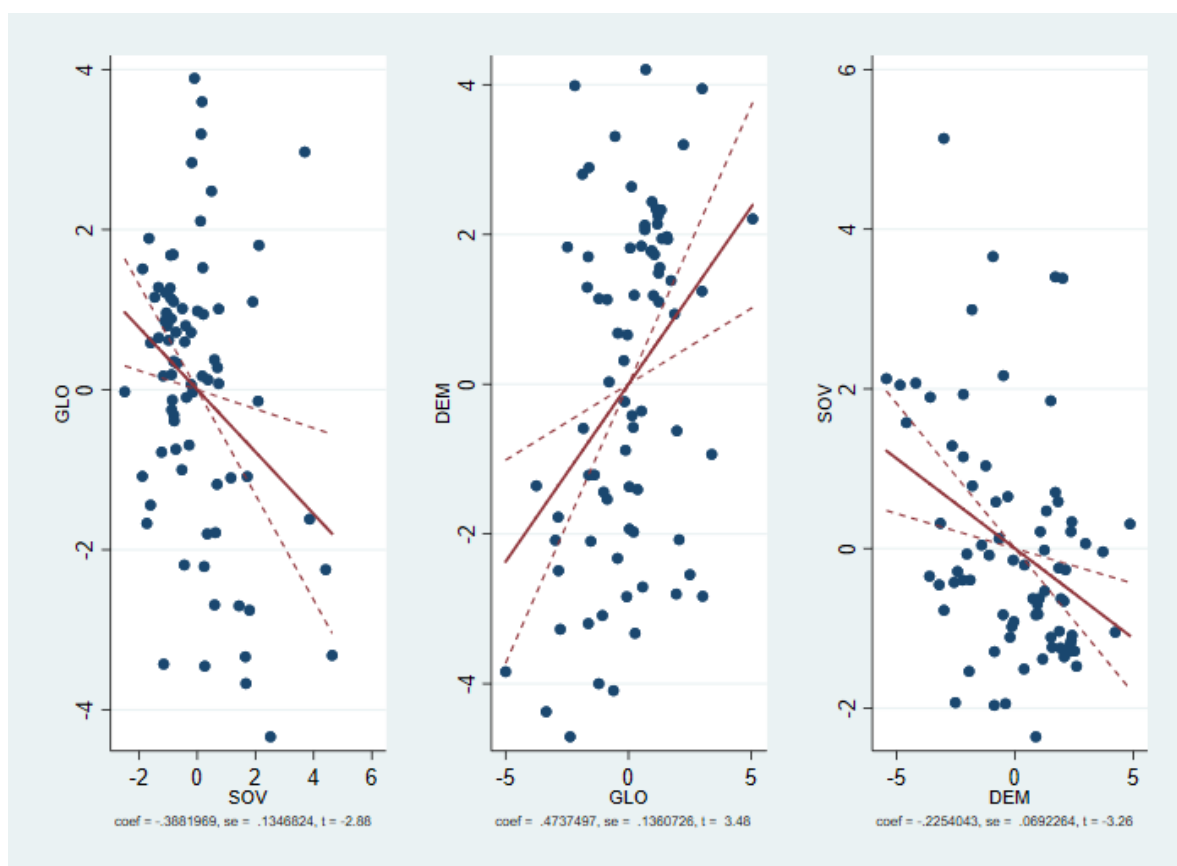
Figure 4 provides three bivariate scatterplots with the respective partial correlations for the year 2017. The first impression is the great heterogeneity and diversity across countries. There exists an almost infinite number of combinations. In addition, the graph reveals that many countries have adopted intermediate combinations of the three vertices. Beyond this great diversity, we see significant positive and negative correlations. Specifically, (i) as expected, stronger economic integration leads to a loss of national sovereignty; (ii) a greater degree of economic globalisation is associated with higher democracy metrics; and (iii) the national sovereignty metrics and the democracy metrics are negatively correlated, albeit weakly.¹⁷ In other words, countries characterised by a high degree of economic globalisation that still emphasise national sovereignty have lower democracy scores on average. Correlation does not imply causation, of course, so these relationships might better be characterised as double-edged swords.

¹⁶ For details about the added-variable plot, see Cook and Weisberg (1994, pp. 191-194).

¹⁷ For more on this topic, we strongly commend the discussion of the relationship between economic globalisation and democracy in Eichengreen and Leblang (2008).

As explained above, the political trilemma emphasises hyperglobalisation. So where should the demarcation line between globalisation and hyperglobalisation be drawn? As international markets extend further beyond the borders of nation states, it becomes less clear who governs them. Hyperglobalised countries accept all or at least most external standards restricting the domestic policy space so as to minimise transactions costs associated with national borders. Figure 5 provides a subdivision experiment in this direction. For this purpose we have calculated the variable openness as the sum of exports and imports in relation to GDP for all 165 countries in the sample. We then rank all countries according to their trade-intensity measures. The median openness halves the countries into two groups. On one side lie the countries with openness less than or equal to the median. On the other side lie the half with openness greater than the median. We consider the half of the countries above the median value of openness to be hyperglobalised. Figure 5 shows that the previous correlations still apply to this hyperglobalised subgroup of countries.¹⁸ Taken together, the 3D and the 2D results tell a consistent story on trilemma trade-offs.

Figure 5 Pair-wise added-variable scatterplots for the hyperglobalised countries in 2017



¹⁸ The qualitative cross-sectional results presented in Figure 4 and 5 are robust with regard to the definition of the globalisation and national sovereignty measure as either a de jure or a weighted de jure and de facto measure. The corresponding results for the alternative definition are available upon request.

4 Econometric framework and results

In the previous cross-country analyses, we have looked at concurrent developments among the three measures. Some global political changes are obvious. Wars, conflicts and revolutions reflect historical turning points the moment they occur. Other developments, however, do not immediately manifest themselves as political change. Indeed, change may be so gradual that is not perceptible in the short term. The profound long-term impacts of such changes are clear in retrospect, however, as they transform economic and political landscapes. The slow decline of the multilateral liberal world order fits this category. Over many years, political views and priorities have shifted incrementally, with certain issues and viewpoints vanishing from the public discussion. Parallel to this slow decline of multilateralism, we see intensified critique of globalisation and the building of the current wave of autocratisation.

We conduct our econometric causation analysis on the relationship of economic globalisation, democratic politics and national sovereignty in three steps. First, we test for the order of integration of the variables. Second, we employ panel cointegration tests to examine whether a long-run relationship exists among the variables. Finally, we employ panel error-correction techniques to uncover the mutual interdependencies among the variables in the system.

Before implementing the multivariate statistical analysis, it is important to check whether outliers are present because their existence could induce significant biases. Unfortunately, the identification of outliers is quite challenging because a visual inspection is troublesome when considering more than two dimensions. To deal with this drawback, we have used Cook (1977) distance measures as diagnostic tools for detecting outliers and leverage points. Cook's (1977) distance has been widely used in statistical practice. The underlying idea of the measures is to assess the influence of individual observations on the estimated coefficients in a regression analysis. Our calculations revealed 13 outliers that were then removed from the dataset.¹⁹

Given our large N , large T dynamic panel, nonstationarity is a concern. It is therefore crucial to ascertain the integrational properties of the data series. In the first step, we attempt to establish the order of integration of the variables in a panel sense. The argument in favour of panel unit root tests (as against performing individual unit root test for each cross-section of the panel) is the increased power associated with the test for $N > T$ panels. To check the stationarity of the series in the panel, we employ the widely used second-generation unit root test of Pesaran (2007). The test relaxes the assumption of cross-sectional independence and allows for a variety of dependence

¹⁹ For discussions of the methodology, Cook and Weisberg (1994) and Preisser and Qaqish (1996). The following 13 outliers are identified and removed from the dataset: Bahrain, Benin, Bhutan, Cape Verde, Hong Kong, Maldives, Montenegro, Oman, Qatar, Saudi Arabia, Singapore, Timor-Leste and the United Arab Emirates.

across the different units. The method is based on augmenting the usual ADF regression with the lagged cross-sectional mean and its first difference to capture cross-sectional dependence. After running this regression for each unit i in the panel, Pesaran (2007) averages the t -statistics on the lagged value to obtain the CIPS statistic. The asymptotic limit of the CIPS statistic is nonstandard and critical values are provided for various choices of N and T . The associated test results are summarised in Table 1. The null hypothesis is that each series in the panel contains a unit root for all i , and the alternative hypothesis allows for some (but not all) of the individual series to have unit roots. Formally, the alternative hypothesis requires the fraction of the individual time series that are stationary to be nonzero. The results of the CIPS panel unit root tests are shown in Table 1.

Table 1 CIPS panel unit root tests

Variables	Levels		1st Differences	
	Constant	Constant and trend	Constant	Constant and trend
GLO	-1.48	-1.81	-2.46***	-2.47***
DEM	-1.47	-2.24	-3.03***	-3.14***
SOV	-2.29*	-2.15	-3.27***	-3.40***

Notes: The tests are estimated with a constant and with a constant and a deterministic trend, respectively. The number of lags to include in the unit root test was selected by minimising the BIC criterion. (***) , (**) and (*) denote rejection of the null hypothesis of homogeneous nonstationary at the 1%, 5% and 10% error levels, respectively. After adjustment for outliers, the dataset includes 152 countries for the years 2006 to 2017. See Pesaran (2007) for further technical details.

Given the panel unit root test results in Table 1 we conclude that the three variables are non-stationary in levels but stationary in first-differences. Differencing the $I(1)$ series to make them stationary in the context of further model estimations is one solution, but at the cost of ignoring possibly important long run relationships between the levels. Therefore, the next step is to test for cointegration. We achieve this by using the panel cointegration tests suggested by Pedroni (1999, 2004). The tests are an extension of the Engle and Granger (1987) two-step procedure applied to panel data.

Pedroni (1999, 2004) proposed several panel cointegration test statistics under the null of no cointegration. The tests correct for bias introduced by potentially endogenous regressors. Furthermore, they allow for considerable heterogeneity across individual members of the panel with regards to the associated cointegrating vectors and the dynamics of the underlying error process. The tests can be divided into two categories. The panel cointegration test statistics are based on the within-dimension of the panel. The group mean panel cointegration test statistics are based on between-dimension of the panel, and thus allow for potential heterogeneity across individual members of the panel. Both panel cointegration test versions can include $I(0)$ and $I(1)$ series together.

The panel cointegration test statistics based on our sample of 165 countries over the 2006–2017 period are provided in Table 2. The various panel cointegration test results are highly significant and strongly reject the null hypothesis of no cointegration for all estimated models. Conversely, this means that economic globalisation, liberal democracy and sovereignty can be considered a long-run relationship.²⁰ A principal feature of cointegrated variables is their responsiveness to any deviation from long-run equilibrium. This feature implies a panel error correction model in which the short-run dynamics of the variables in the system are influenced by the deviation from equilibrium.

Table 2 Results from Pedroni's panel cointegration test

Models	Test statistic
Panel cointegration statistics	
Panel <i>pp</i> -statistic	−4.63***
Panel <i>adf</i> -statistic	−5.56***
Group mean panel cointegration statistics	
Panel <i>pp</i> -statistic	−3.46***
Panel <i>adf</i> -statistic	−3.89***

Notes: (***) , (**) and (*) denote rejection of the null hypothesis of no cointegration at the 1%, 5% and 10% error levels, respectively. The panel statistics are computed with the appropriate mean and variance adjustment terms as in Pedroni (1999, 2004). Pedroni-derived asymptotic distributions and critical values for the residual-based tests in panels where there are several regressors. After adjustment for outliers, the dataset includes 152 countries for the years 2006 to 2017. See Pedroni (1999, 2004) for further technical details.

In light of the test results in Table 1 and 2, we apply three estimation techniques proposed by Pesaran and Smith (1995) and Pesaran et al. (1999) to estimate non-stationary dynamic panels in which the parameters are heterogeneous across units. The techniques are called mean-group (MG), pooled mean-group (PMG) and dynamic fixed effect (DFE) estimators. They provide answers to the “causality” and “propagation” questions which are particularly interesting in the context of the political globalisation trilemma. The parameters of the error-correction models are made by means of iterated conditional likelihood maximization which are asymptotically identical to those from full-information maximum likelihood. An attractive feature of the MG and PMG estimators is that they provide consistent coefficient estimates despite the possible presence of endogeneity because they include lags of dependent and independent variables. For all three estimators the optimal lag structure must be determined. This is done by means of the Schwartz Bayesian information criterion.

²⁰ This result contradicts Aizenman and Ito (2020). They find a linear negative association between globalisation and national sovereignty for industrialised countries, but the democratisation index remains statistically constant during their sample period. In contrast, developing countries experienced convergence of declining sovereignty and rising globalisation and democratisation around the same period. The reason for this difference lies mainly with the choice of the democracy variable. Our liberal democracy index reacts more sensitive to gradual shifts towards an autocratic political system.

The differences between the three estimators can briefly be characterised as follows. The main feature of the pooled mean group (PMG) estimator is that it allows short-run coefficients, including the intercepts, the speed of adjustment to the long-run equilibrium values, and error variances to be heterogeneous country by country, while the long-run slope coefficients are restricted to be homogeneous across countries. This is particularly useful when there are reasons to expect that the long-run political globalisation trilemma trade-offs are similar across countries, or at least sub-sets of countries. The short-run adjustment is allowed to be country-specific, due to the widely different shocks and policies. In addition, the PMG estimator can be applied even if the variables follow different order of integration, i.e. $I(0)$ and $I(1)$ or a mixture of both. The mean group (MG) estimator estimates separate regressions for each country and calculates the coefficients as un-weighted means of the estimated coefficients for the individual countries. This does not impose any restrictions. It allows for all coefficients to vary and be heterogeneous in the long-run and short-run. Finally, the dynamic fixed effects estimator (DFE) is very similar to the PMG estimator and imposes restrictions on the slope coefficient and error variances to be equal across all countries in the long run. Apart from this, the DFE model also restricts the speed of adjustment coefficient and the short-run coefficient to be equal too. Conversely, the model features country-specific intercepts.²¹

The three different model specifications require a strategy for the final model selection. To this end the Hausman h -test can be employed. The Hausman h -test checks whether there are significant differences between these estimators. The null of this test is that the difference between PMG and MG or PMG and DFE estimation is not significant. If the null is not rejected, the PMG estimator is recommended since it is efficient. The alternative is that there is a significant difference between PMG and MG or PMG and DFE and the null is rejected. The PMG will be preferred if the p -value is insignificant at the 5% level. On the other hand, if it happens to have a significant p -value, then the use of the MG or DFE estimator is appropriate. The estimation results are available in Table 3. Beyond the long-run and short-run coefficients, we also report the error correction coefficients.²²

²¹ However, Baltagi et al. (2000) rightly points out that this model is subject to a simultaneous equation bias due to the endogeneity between the error term and the lagged dependent variable in the case of small sample size.

²² The PMG estimator allows the adjustment speeds to differ across the cross-section units. To save space, we only report their averages.

Table 3 Panel error-correction model estimates (dependent variable: $DEM_{i,t}$)

	All countries (N=152)			High trade-intensive countries (N=67)		
	PMG	MG	DFE	PMG	MG	DFE
Long-run coefficients						
$GLO_{i,t}$	-0.18***	-0.28	-0.09	-0.20***	0.01	-0.28
$SOV_{i,t}$	-0.13***	-0.21	-0.02	-0.16***	0.87	-0.00
Error-correction coefficient						
ϕ	-0.33***	-0.55***	-0.21***	-0.35***	-0.51***	-0.17***
Short-run coefficients						
$\Delta GLO_{i,t}$	0.06	0.06	0.04	0.02	0.01	0.05
$\Delta SOV_{i,t}$	-0.17	0.02	0.02	-0.58**	-0.20	-0.07
Constant	2.25***	2.94***	1.26***	2.80***	3.87**	1.33***
Hausman h -test						
		0.04 (0.98)	0.80 (0.67)		0.63 (0.73)	0.01 (0.99)

Notes: MG: mean-group; PMG: pooled mean-group; DFE: dynamic fixed-effects. (***), (**), and (*) denote significance at the 1%, 5%, and 10% error level, respectively. After adjustment for outliers, the dataset includes 152 countries for 2006–2017. The optimal lag structure of the autoregressive distributed lag model is ARDL(1,1,1). All estimates control for country and time effects. The p -values below the Hausman h -tests indicate that PMG is more efficient than MG and DFE under the null hypothesis.

The Hausman test statistics for choosing between the PMG and MG and the PMG and DFE estimators indicate that PMG is to be preferred; it is more efficient under the null that long-run coefficients are homogenous, i.e. pooling leads to efficiency gains. Table 3 shows that both PMG long-run coefficients are negative and statistically significant. This underscores the trade-offs as postulated in the political globalisation trilemma. The same conclusion follows from the negative and significant error correction term. The size of the speed of adjustment parameter (-0.33) implies that 33% of the last year's disequilibrium is corrected this year. Both findings confirm the existence of a long-term causal relationship between the three variables. Turning to short-run coefficients, it emerges that these are statistically insignificant even at the 10% significance level. This mirrors the fact that many institutional and political changes evolve gradually. As a robustness check, we have also examined to what extent the above findings vary with the degree of openness. The results for the “hyperglobalised” countries indicate that the results are qualitatively identical, except that the error-correction term is slightly larger.

5 Conclusions

With the notion of political trilemma already hotly debated among political economists, the third wave of autocratisation in recent years has led to concern about whether societies that choose hyperglobalisation and national sovereignty are on the path to autocratisation. To shed light into this debate, this paper perform a novel assessment of Rodrik's (2011) political globalisation trilemma on a large set of countries. This paper aims to fill this void by comprehensively assessing the political globalisation trilemma in a large cross-country panel dataset employing advanced econometric methodologies.

Our empirical results have several policy implications, and three of our results deserve highlighting. First, as stipulated in the trilemma, there are trade-offs among the three vertices deep economic integration, national sovereignty and democracy. Second, the panel cointegration results may be interpreted as the simultaneous adoption of economic globalisation, national sovereignty and democratic politics metrics. Third, our long- and short-run causality tests strongly support the existence of feedback among the three trilemma variables. Taken together, these mutual relationships among the three variables can be interpreted as a confirmation of the political globalisation trilemma.

What lessons can be drawn from these results? At the current juncture, complacency about the impacts of hyperglobalisation are ill-advised. We should also acknowledge that populism supporting nationalism and restricting globalisation, as well as the shift to more autocratic regimes is not an advisable policy prescription. Rather, the world needs to reinvent globalisation.²³ As a start, this involves reassessing the impacts of economic globalisation. In this regard, attention should be paid to what Rodrik (2011) has emphasised in this context. Democracy is and remains one of humanity's greatest achievements. Moreover, effective global government is still unimaginable, so economic globalisation must be constrained with a sense of proportion. This requires that hyperspecialisation in tasks and supply chains across national borders is replaced by smart globalisation that spreads the jobs and income gains from globalisation across societies.²⁴ We hope that the diversity in dealing with the globalisation straitjacket that is visible in the cross-country data contributes to such a globalisation discourse and strengthens this belief.²⁵

²³ For a thorough of assessment of policies for inclusion and sustainability in the context of the worldwide globalisation of production processes, see World Bank (2020), pp. 194-212.

²⁴ Political economists have always been interested in the differences in the economic and political institutions across countries. That is reflected in the widely-known "Varieties of Capitalism" debate investigating the cross-national institutional variations of advanced economies (Hall and Soskice, 2015). By analogy, a "Varieties of Globalisation" debate is warranted. For proposals to avoid the arising populist remedies, see Rodrik (2017).

²⁵ It is impossible to say what impact the coronavirus pandemic will have on the future globalisation debate. Once the pandemic has eased, the world might see countries turning increasingly inward with a mindset of narrow-minded nationalism in which national borders limiting the scope of economic and social activity. All the greater is the challenge to take the liberal international order in a healthy direction by regulating and attenuating the burdens of globalisation.

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