Political Institutions and International Trade: in search of an explanation for Cross-Country Deviances and the Long-Run Relationship

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Abstract

We examine the long-run effects of the political institutional framework, measured by the political risk component of the International Country Risk Guide, on trade. We employ recent panel econometric methods in testing for nonstationarity and Granger causality, addressing cross-country heterogeneity, and test procedures for bounded variables. Our results suggest that an improved political institutional framework is both a cause and a consequence of increased trading activity. However, we find no significant relationship in case of exporting activity for the high-income countries and the countries that possess a higher quality of political institutions.

Keywords: Political institutions, Trade, Cointegration

JEL-Code: F14, F55, C23

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1. Introduction

The world has seen a great deal of economic and political transformation in the past. In the political sphere, several new Eastern European countries have emerged after the break-down of the Soviet-regime, Latin-America experienced a great wave of re-democratization in the 1980s, the upheaval in the Arab countries has led to newly established political systems in (some of) these countries, and new countries were formed like the South-Sudan in 2011. However, reality teaches us that no clear association between the role that the political institutional framework has played and the degree of globalization can be drawn: on the one hand, a higher degree of democratization led to an increase in the economic opening in the former Soviet republics, on the other hand, in cases like Bolivia or Peru a negative impact occurred. China provides an illustrative example that economic and financial opening have not fostered democratization. Consequently, the link between institutions and globalization remains sort of a riddle.

The economics literature has generally found a positive link between international trade and growth (Anderson and Babula 2008) and institutions and economic development, in particular economic growth (Dollar and Kraay 2003). However, attention needs to be paid towards problems arising from the econometric analysis, namely measurement error and endogeneity bias (Anderson and Babula 2008).

Some of the recent studies have found that institutions (Francois and Manchin 2013, Levchenko 2007) or more specifically democracy (Yu 2010, Eichengreen and Leblang 2008) foster trading activity. The literature addresses several reasons for this relationship. In the model of Yu (2010), democracy improves institutions, where better institutions will involve stronger consumer rights, rule of law and property rights. This in turn will improve product quality and consequently the reputation of a country’s exports, inducing decreased trade costs. For an importer country, democratization would influence trade costs via tariffs. In that respect, the literature finds that democratization leads to more liberal trade policies in less developed labor-intensive countries (where the political power is transferred from the elites to laborers, who benefit from pro-trade policies), whereas in developed

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¹ Note that the economic literature has drawn attention to the individual countries’ regime type for explaining trade instead of using information on congruence of regime type for pairs of countries, a method which is usually applied in the political science literature (see e.g. Mansfield et al. 2000).
countries protectionism is set up (O’Rourke and Taylor 2006, Milner and Kubota 2005). In this regard, Yu (2005) explains that in democratic states policies of protectionism are better represented and thus maintained.

Studying the relationship between institutions and trade is particularly interesting due to the two-sided effects that are supposed to exist. The literature’s findings about the bidirectional relationship between institutions and trade remain rather inconclusive, however. Francois and Manchin (2013, page 167) argue that “institutional quality may also be driven by trade…”, however, institutions “are more likely to have a more direct and immediate effect on the probability of trading and the amount traded than the other way around.” The authors do not estimate the effect of trade on institutional quality, but rather use an instrumental variable strategy for estimating the one-sided effects on trade. Employing instrumental variables for trade, Eichengreen and Leblang (2008), Lopez-Cordova and Meissner (2005) and Yu (2005) find a positive effect of trading activity for democratization. The literature provides explanations for both positive and negative effects of trade on institutional quality. On the one hand, free trade will raise incomes, communication of ideas and therewith the demand for democracy (Lipset 1959, 1960). On the other hand, trade openness might sustain the status quo in a country (Yu 2010), because the land owners/ elites are the ones primarily receiving benefits from globalization (Acemoglu and Robinson 2006) and they would fight for maintaining the current set-up of property rights and rule of law. A recent study by Bergh et al. (2013) which employs the KOF globalization index for a sample of 100 countries from 1992 to 2010 finds a positive influence of globalization on institutional quality for the rich countries and a negative influence for the poor countries.

To the best of our knowledge there exists only one study in the literature that addresses nonstationarity issues and the long-run relationship between political institutions and trade. Using a panel data set of bilateral trade for 197 countries and the time period from 1976 to 2004, Nicolini and Paccagnini (2011) find no significant relationship between institutions and trade when employing a Granger causality test and controlling for cross-sectional heterogeneity. Our study deviates from their study in three ways. First, we employ another data set and structure, namely monadic trade data for a more recent time period. Second, we employ the most recent econometric estimation methodologies.
capturing effects of cross-country heterogeneity when dealing with the non-stationary nature of the variables. Lastly, we investigate the effects across different groups of countries. As we will see in the following, the effect of the political institutional framework differs across countries and consequently should be taken in account when deriving conclusions about the effectiveness of improving the institutional framework for the general good of a country’s economic development. To antedate, our results do not support the findings from Nicolini and Paccagnini.

It is important to deal with nonstationarity in order to rule out spurious regression results. As we will see in the following, clearly trading activity as well as the political institutional quality increased over time, justifying analyses of nonstationarity. The recent literature has seen various applications of panel cointegration and causality methods which prove as a powerful tool to figure out the long-run relationship, for example between religiousness and growth (Herzer and Strulik 2013) or between trade and income (Herzer 2013). Panel cointegration estimators are coping with omitted variables and endogeneity. Furthermore, a reduced system of a regression framework can be applied since once we have found a cointegrating relationship, this relationship is robust against the inclusion of other factors that are supposed to exercise an influence on the dependent variable.

We analyze the relationship between political institutions and trade using data from the International Country Risk Guide and the World Development Indicators for a sample of 90 countries for the time period from 1990 to 2005. We find that in the long-run a one unit increase in the political institutions index is associated with an increase of exports by 0.4 percentage points and an increase of imports by 1 percentage point. Moreover, we can disentangle a birectional causality between trade and institutions. However, we find no significant relationship in case of exporting activity for the high-income countries and the countries that possess a higher quality of political institutions.

2. Empirical Analysis

2.1 Model and data

In order to investigate the long-run relationship between the political institutional framework and trade, we estimate the following bivariate model:
\[ \ln(X_{it}) = \beta_0 + \beta_1 \text{ (politicalinstitutions}_{it}) + \varepsilon_{it} \]  

where \(i=1,...,N\) denotes the cross-sectional unit, \(t=1,...,T\) denotes the time unit, and \(\varepsilon\) is the usual error term. \(X\) is the trade variable, either exports or imports, measured as values of exports or imports in goods and services in constant 2000 US dollars. The trade data are taken from the World Development Indicators (2011). Our measure for the political institutional framework is \textit{politicalinstitutions}, which is a composite measure defined as the sum of the components of the political risk measure of the International Country Risk Guide (ICRG). The index is based on the ICRG’s rating of the following components:

1. (12 points each) government stability, socioeconomic conditions, investment profile, internal conflict, external conflict,
2. (6 points each) corruption, military in politics, religious tensions, law and order, ethnic tensions, democratic accountability, and
3. (4 points) bureaucratic quality.

Our measure for political institutions attains values between \(\text{min } 0\) and \(\text{max } 100\), a higher value representing a better political institutional framework.\(^2\) Our data cover the period from 1990 to 2005 and we take up all countries into the sample for which data are available, leading to a total of 90 countries (see the list in the Appendix).

A first look at the data reveals that the variables appear to be non-stationary (see Figures 4-6 in the Appendix). \(\ln(\text{exports})\), \(\ln(\text{imports})\) and the \textit{politicalinstitutions} variable generally increase between 1990 and 2005.

In the following, we plot the time series of \(\ln(\text{exports})\), \(\ln(\text{imports})\) and \textit{politicalinstitutions} for a set of selected countries (China, India, Sudan, United Kingdom and Zimbabwe). The graphs suggest a positive association between exporting/importing activity and the political institutional framework for China, Sudan and the United Kingdom over time, whereas for Zimbabwe a negative association seems to prevail especially for the time frame between 1994-1997 for the importing activity, as well as

\(^2\) Note that democracy (measured by the ICRG’s variable “democratic accountability”) remains rather stationary over time, instead.
from 2002-2005 for both importing and exporting activity. For India a negative association between trade and the institutional framework would hold from about 1993 to 2002.

Figure 1: ln(exports) and ln(imports) across selected countries

Source: World Development Indicators, author’s depiction.

Figure 2: The political institutions index across selected countries


A look beyond the composition of the political institutions variable might shed some light on the aforementioned developments. Figure 3 plots the patterns of socioeconomic conditions and democratic accountability across time. As can be seen, Zimbabwe scores only poorly in terms of socioeconomic conditions and its condition even worsened over time compared to United Kingdom, for example. As
regards democratic accountability, the United Kingdom scores best and attains a stable value of around 6.0, whereas China and Zimbabwe perform only poorly, the value considerably decreased over time.

Figure 3: Socioeconomic conditions and democratic accountability across selected countries


In the following analysis, we will first test for the non-stationarity of the variables. The idea behind is to disentangle economic long-run relationships between variables that have a stochastic trend over time and to differentiate these relationships from spurious regression results. If two non-stationary variables are found to be cointegrated, a long-run equilibrium relationship between these variables exists. Finding a cointegration relationship involves that no other important non-stationary variable has been omitted from the regression, otherwise no cointegration would be detected (Everaert 2011). Furthermore, no endogeneity problems arise, because the cointegrating estimator is superconsistent (Engle and Granger 1987). The direction of long-run causality will be investigated in order to figure out if an improved political institutional framework causes increased trading activity or if the former is an effect of the latter.

2.2 Panel unit root and cointegration tests

We conduct the panel unit root tests of Breitung (2000) and Pesaran (2007) to investigate nonstationarity of the variables for trading activity and political institutions. Among the so called first generation panel unit root tests, the Breitung test was found to have the highest power and smallest
Table 1 Panel unit root tests

<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>ln(exports)</td>
<td>0.516</td>
<td>-1.769</td>
</tr>
<tr>
<td>ln(imports)</td>
<td>-1.4598*</td>
<td>-2.396</td>
</tr>
<tr>
<td>political institutions</td>
<td>1.9379</td>
<td>-2.151</td>
</tr>
</tbody>
</table>

Note: For the two tests the number of lags was determined by the Schwarz information criterion with a maximum lag of two. Individual-specific intercepts and time trends were included in the regressions. The unit root tests on the first differences of the variables all reject the null hypothesis (not shown here), revealing that all variables are integrated of order one. ** indicates significance at the 5% level.

size distortions (Breitung 2000). The Breitung test, however, assumes cross-sectional independence. Therefore, we also employ the Pesaran test which is able to capture heterogeneity across countries. The test statistics in Table 1 imply that the null hypothesis of a unit root cannot be rejected.

In a next step we investigated if a long-run equilibrium relationship (cointegration) between institutions and trade exists. We employ the approach of Pedroni (2004) and use the panel and group Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) tests to check for cointegration. All tests reject the null hypothesis of no cointegration, implying that there exists a long-run relationship between the political institutional framework and trade. To control for cross-sectional dependence we also employ the test of Banerjee and Carrion-i-Silvestre (2011). The results reveal that the statistic is sensitive to the choice of deterministic elements and lags. Another procedure to cancel out cross-sectional influences is to run cointegration tests on the demeaned data series (substracting the cross-sectional mean for one year from each observation). The Pedroni tests applied to the demeaned data series all point to the existence of a cointegration relationship.

Table 2 Panel cointegration tests

<table>
<thead>
<tr>
<th></th>
<th>Test statistic for the exports equation</th>
<th>Test statistic for the imports equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel PP</td>
<td>-4.9639**</td>
<td>-5.5728**</td>
</tr>
<tr>
<td>Panel ADF</td>
<td>-6.595**</td>
<td>-11.045**</td>
</tr>
<tr>
<td>Group PP</td>
<td>-5.2386**</td>
<td>-6.5514**</td>
</tr>
<tr>
<td>Group ADF</td>
<td>-8.0567**</td>
<td>-10.2372**</td>
</tr>
</tbody>
</table>

Pedroni tests for the demeaned data series

<table>
<thead>
<tr>
<th></th>
<th>Test statistic for the exports equation</th>
<th>Test statistic for the imports equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel PP</td>
<td>-3.6235**</td>
<td>-4.8852**</td>
</tr>
<tr>
<td>Panel ADF</td>
<td>-6.0046**</td>
<td>-11.0056**</td>
</tr>
<tr>
<td>Group PP</td>
<td>-3.7338**</td>
<td>-5.0057**</td>
</tr>
</tbody>
</table>
Note: The number of lags was determined by the Schwarz information criterion with a maximum lag of two. A deterministic trend and an intercept were included in the regressions. For the Banerjee-Carrion-i-Silvestre test, the test values based on a model including zero lags are given in parentheses. ** indicates significance at the 5% level.

Since political institutions is a time series that is generally bounded, namely between 0 and 100, the adequacy of employing common unit root testing procedures needs to be investigated. A recent contribution by Cavaliere and Xu (2014) addresses this issue. The point that these authors raise is of great importance for a wide range of economics since most of the time series we work with are at least partially or even fully bounded. For example, nominal interest rates are bounded below at zero, moreover shares are bounded like for example the unemployment rate. The problem with traditional unit root tests when applied in a context with bounded variables is that they would tend to over-reject the null hypothesis of a unit root. They would indicate rather stationarity of a series than the nonstationarity. Now, for our study this appears not to be a problem. In fact, most of the tests we run would clearly favor the nonstationary pattern of the series. Cavaliere and Xu further explain that conventional unit root methods behave according to standard asymptotic theory when the bounds are sufficiently far away. This will be the case for our study, since the political institutions variable, though displaying an increasing tendency over time, does not reach the upper bound of 100 (see the graphs in the Appendix). Reaching a quality of the political institutional framework that comes close to the max value of the index seems to be fairly unrealistic. To reassure that the series we work with are really nonstationary, apart from employing the standard tests, one could also calculate and draw the autocorrelation functions. A typical pattern that emerges in case of a unit root is that the autocorrelation is around 1 and only slowly degrades as the lags increase and the partial autocorrelation function at lags higher than 1 will show up small values. For our study, this is actually the case (see the graphs in the Appendix).
2.3 Long-run relationship

We estimate the long-run effect of the political institutional framework on trade using dynamic ordinary least squares (DOLS) and fully modified ordinary least squares (FMOLS). These estimators have been found to be asymptotically efficient. In comparison, however, the DOLS-estimator outperforms the FMOLS-estimator (Kao and Chiang 2000). We will first talk about the pooled panel DOLS-estimator and report results of the group mean panel DOLS and pooled FMOLS estimation in Section 2.5 as robustness checks.

The pooled panel DOLS estimator (Kao and Chiang 2000) is given by:

\[
\ln(X_{it}) = \beta_0 + \beta_1 \text{politicalinstitutions}_{it} + \sum_{j=-k}^{k} B \Delta(\text{politicalinstitutions}_{i,t-j}) + \epsilon_{it}
\]

where \(k\) lead and lag differences as well as the current difference of \text{politicalinstitutions} are included in the regressions, accounting for possible serial correlation and endogeneity of regressors.

The coefficient of the pooled DOLS-estimator for the export equation displayed in Table 3 implies that a unit increase in the \text{politicalinstitutions} variable yields, in the long-run, a statistically significant increased exporting activity of \text{exp}(0.0038) \approx 0.4\%. The long-run increase in importing activity amounts up to \text{exp}(0.97) \approx 1\%. In comparison, Yu (2010) found that total trade (exports plus imports growth) increases by 3.6\% through democracy (Note that in his study democracy is measured by the Polity IV data on a scale ranging from -10 to +10.).

<table>
<thead>
<tr>
<th>Table 3 Long-run effects estimators</th>
<th>DOLS pooled</th>
<th>DOLS group mean</th>
<th>FMOLS pooled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports equation</td>
<td>0.0038**</td>
<td>0.0009</td>
<td>0.0043**</td>
</tr>
<tr>
<td>(R^2)</td>
<td>0.995</td>
<td>0.938</td>
<td>0.99</td>
</tr>
<tr>
<td>Imports equation</td>
<td>0.0096**</td>
<td>0.0073**</td>
<td>0.0089**</td>
</tr>
<tr>
<td>(R^2)</td>
<td>0.995</td>
<td>0.881</td>
<td>0.989</td>
</tr>
<tr>
<td>Observations</td>
<td>1170</td>
<td>1170</td>
<td>1350</td>
</tr>
</tbody>
</table>

Note: DOLS-estimation was run with one lead and one lag. The demeaned data series were applied for the regressions. ** denotes significance at the 5% level.
We checked for the relevance of cross-sectional dependence for the estimators by employing the Pesaran (2004) test (see Eberhardt and Teal 2011 for a critical discussion). For every equation and estimator the test indicated cross-sectional dependence, such that in the following we always employed the demeaned data series for the estimations (also for the estimations in subsection 2.4 and 2.5).

2.4 Granger Causality

It might well be that the positive coefficient we obtained for the relationship between political institutions and trade is not resulting from an impact of institutions on trade but from an impact of trade on institutions. This would justify research findings by Lopez-Cordova and Meissner (2005) and Yu (2005) in the case of democratization. Consequently, we also need to investigate the direction of causality.

We estimate the following panel vector error correction model:

\[
\Delta X_{it} = \beta_{0,1} + \beta_{1,1}Z_{it-1} + \sum_{j=1}^{k}(\gamma_{1,1j}\Delta X_{it-j} + \gamma_{2,1j}\Delta \text{political institutions}_{it-j}) + \epsilon_{1it}
\]

\[
\Delta \text{political institutions}_{it} = \beta_{0,2} + \beta_{1,2i}Z_{it-1} + \sum_{j=1}^{k}(\gamma_{1,21j}\Delta X_{it-j} + \gamma_{2,2i}\Delta \text{political institutions}_{it-j}) + \epsilon_{2it}
\]

where \(Z\) are residuals of individual DOLS long-run estimations. A significant error correction term \(\beta_1\) indicates long-run Granger causality from the independent to the dependent variable (Granger 1988).

The results in Table 4 show that in the long-run trade is both a cause and a consequence of the political institutional framework. In every case, the null hypothesis of no Granger causality is rejected.
Table 4 Long-run causality

<table>
<thead>
<tr>
<th></th>
<th>Observations</th>
<th>F-Stat</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political institutions do not Granger cause ln(exports)</td>
<td>1260</td>
<td>5.6321</td>
<td>0.0037</td>
</tr>
<tr>
<td>Ln(exports) do not Granger cause political institutions</td>
<td>1260</td>
<td>3.0004</td>
<td>0.0501</td>
</tr>
<tr>
<td>Political institutions do not Granger cause ln(imports)</td>
<td>1260</td>
<td>3.3652</td>
<td>0.0349</td>
</tr>
<tr>
<td>Ln(imports) do not Granger cause political institutions</td>
<td>1260</td>
<td>3.638</td>
<td>0.0266</td>
</tr>
</tbody>
</table>

Note: The demeaned data series were taken for regressions. Two lags were included in the regressions.

2.5 Robustness checks

We control for the robustness of our results by using different estimation methods and investigating sample-selection bias.

On the one hand, we generate group mean panel DOLS estimates (Pedroni 2001) which account for cross-country heterogeneity, on the other hand we use the pooled FMOLS-estimator (Kao and Chiang 2000) which is based on a non-parametric procedure that controls for serial correlation and endogeneity. The estimates are generally similar and robust to different estimation techniques (see results in Table 3).

In order to control for sample-selection bias, we run pooled DOLS-regressions for the subsamples of high- and low-income countries (given by the World Bank classification 2012; low-income economies are those countries that have a GNI per capita of 1035 $ or less; high-income economies have a GNI per capita of 12616 $ or more) and for those countries with higher or lower values of the political institutions variable than the countries’ average over the period from 1990 to 2005, respectively. The results reveal that the long-run relationship between political institutions and imports remains positive and significant. For exports, the coefficients become insignificant in case of the high-income countries and countries that possess a higher quality of political institutions. These results imply that the effect of political institutions on trade is rather negligible for the high-income countries and those countries that possess a high quality of institutions. These results are supported by another study of ours (Abeliansky and Krenz 2014). Employing quantile regression methods, the authors find that especially for the exporting activity the effect of democratization on trading activity loses significance or gets even negative at the higher quantiles in the distribution of countries’ trading activity. To put it another way, the marginal benefit of democratization decreases along with the degree of countries’ trading activity.
Table 5 DOLS-estimates for sub-samples

<table>
<thead>
<tr>
<th></th>
<th>High-income countries</th>
<th>Low-income countries</th>
<th>Political institutions values above country average</th>
<th>Political institutions values below country average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports equation</td>
<td>0.0011</td>
<td>0.0091**</td>
<td>-0.0008</td>
<td>0.0053**</td>
</tr>
<tr>
<td>R²</td>
<td>0.997</td>
<td>0.967</td>
<td>0.997</td>
<td>0.99</td>
</tr>
<tr>
<td>Imports equation</td>
<td>0.0133**</td>
<td>0.0138**</td>
<td>0.0124**</td>
<td>0.0092**</td>
</tr>
<tr>
<td>R²</td>
<td>0.997</td>
<td>0.964</td>
<td>0.997</td>
<td>0.988</td>
</tr>
<tr>
<td>Observations</td>
<td>403</td>
<td>182</td>
<td>520</td>
<td>650</td>
</tr>
</tbody>
</table>

Note: Pooled DOLS-estimation was run with one lead and one lag. The demeaned data series were taken for regressions. ** denotes significance at the 5% level.

2.6 Controlling for the transmission channel through GDP growth

In a further investigation, we estimated the effects when expanding our regression framework to comprise a measure of the logarithm of GDP, as well (see Table 6). Given the logarithmic version of our regression set-up, we would now test for the association between the growth rate of GDP, the change in the level of political institutions and the growth rate of trading activity. This part of the analysis is owed to the fact that the economics literature has well established a positive link between institutions and growth (e.g. Dollar and Kraay 2003). In general, the results found so far still hold. We find a nonstationary behavior of ln(GDP), as well as cointegrating relationships for both the exports and imports equation and the cointegrating estimators are still revealing a positive association between

Table 6 Regression results including ln(GDP)

<table>
<thead>
<tr>
<th>Test statistic</th>
<th>Exports equation</th>
<th>Imports equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breitung (2000) unit root test</td>
<td>3.777</td>
<td></td>
</tr>
<tr>
<td>Pedroni (2004) test for cointegration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel PP</td>
<td>-2.771**</td>
<td>-3.2**</td>
</tr>
<tr>
<td>Panel ADF</td>
<td>-5.251**</td>
<td>-8.099**</td>
</tr>
<tr>
<td>Group PP</td>
<td>-6.872**</td>
<td>-5.266**</td>
</tr>
<tr>
<td>Group ADF</td>
<td>-7.916**</td>
<td>-9.214**</td>
</tr>
<tr>
<td>Panel DOLS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coefficient for political institutions</td>
<td>0.0038**</td>
<td>0.009**</td>
</tr>
<tr>
<td>Coefficient for ln(GDP)</td>
<td>0.0031</td>
<td>0.0034</td>
</tr>
</tbody>
</table>

Note: ** denotes significance at the 5% level.
trade and institutions. We cannot find, however, a significant long-run effect of GDP on trade. Clarifying this relationship might be a further promising line of future research. Note that there exist studies that find a significant effect for just the opposite relationship, namely the effect of increasing trading activity on national income (e.g. Herzer 2013, Frankel and Romer 1999).

3. Conclusions
We examined the nonstationarity and the long-run relationship between the political institutional framework and trade using panel unit root and cointegration techniques. With this methodology we were able to control for omitted variable and endogeneity bias and could set-up a reduced model between only the trading activity and the quality of institutions. From our results, we can conclude that the political institutional framework has a positive long-run effect on trade. We estimated that a one unit decrease in political risk is associated with an increase of exports by 0.4 percentage points and an increase of imports by 1 percentage point. In addition, our results show that the long-run causality is bidirectional. An improved political institutional framework is both a cause and a consequence of increased trade. These effects are robust to different estimation methods. Our results also do not depend on the inclusion of GDP in the regression frameworks. We found no significant effects, however, in case of exporting activity for the high-income countries and the countries that possess a higher quality of political institutions. These results are backed by another recent investigation of ours which finds especially for the exporting activity that the effect of democratization on trading activity loses significance or gets even negative at the higher quantiles in the distribution of countries’ trading activity (see Abéliansky and Krenz 2014).

Literature


Appendix

List of countries:

Algeria, Argentina, Australia, Austria, Bahamas, Bangladesh, Belgium, Bolivia, Botswana, Brazil, Brunei Darussalam, Bulgaria, Burkina Faso, Cameroon, Canada, Chile, China, Colombia, Congo DR, Costa Rica, Cote d’Ivoire, Cuba, Cyprus, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Finland, France, Gabon, Gambia, Greece, Guatemala, Guinea, Honduras, Hungary, Iceland, India, Indonesia, Iran, Ireland, Italy, Japan, Jordan, Kenya, Luxembourg, Madagascar, Malaysia, Mali, Malta, Mexico, Morocco, Mozambique, Namibia, Netherlands, New Zealand, Nicaragua, Norway, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Senegal, South Africa, South Korea, Spain, Sudan, Sweden, Switzerland, Syrian Arab Republic, Tanzania, Thailand, Togo, Trinidad and Tobago, Tunisia, Turkey, Uganda, United Kingdom, United States, Uruguay, Venezuela, Vietnam, Zambia, Zimbabwe

Figure 4: Time series plots for ln(exports)

Note: The log of exports is measured on the vertical scale, the number of years are given on the horizontal scale.
Source: World Development Indicators, author’s depiction.
Figure 5: Time series plots for ln(imports)

Note: The log of imports is measured on the vertical scale, the number of years are given on the horizontal scale.
Source: World Development Indicators, author’s depiction.
Figure 6: Time series plots for political institutions

Note: The political institutions index is measured on the vertical scale, the number of years are given on the horizontal scale.

Figure 7: Autocorrelation diagram for political risk

Figure 8: Autocorrelation diagram for ln(exports)

Figure 9: Autocorrelation diagram for ln(imports)