



# Institutional Quality, Trade Costs and Comparative Advantage

Sangkyom KIM and Soon Chan Park



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## Executive Summary

Earlier works derive empirical implications that institutional quality is very influential as a source of *comparative advantage* in industries requiring *relationship-specific investment* from the supplier. However, as earlier studies focus on investigating the impact of institution on the efficiency of the producer, only the exporter's institution is considered. In contrast, we attempt to identify the impacts of the quality of institution, of both exporters and importers, on trade costs, that are different across country-pairs. To check the problem of measuring trade costs, we use two alternative measures of trade costs, i.e. CIF/FOB ratio and the relative measure of trade costs proposed by Novy (2013). Using the Eora global supply chain database covering 187 countries for 11 primary and manufacturing industries and four years, 2000, 2005, 2010 and 2015, we calculate a CIF/FOB ratio and the relative trade costs suggested by Novy (2013) which are used as a proxy variable for trade costs. At the country level, we find that the institutional quality of exporter and importer is negatively associated with trade costs and trade costs increase as disparity between two countries' institutional quality increases. At the country-industry level, we find that a country-pair with better legal institution has lower trade costs in industries for which a hold-up problem is important. This result is robust to the alternative measure of trade costs suggested by Novy (2013). However, an analysis on the impact of institutional differences on trade costs yields mixed results. Therefore we do not conclude that the similarity of institutional quality between two countries is associated with lower bilateral trade costs.

**Keywords:** Trade Cost, Institutions, Comparative Advantage

**JEL Classification:** F14, F20

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# Institutional Quality, Trade Costs and Comparative Advantage

Sangkyom KIM<sup>†</sup> and Soon Chan Park<sup>††</sup>

## I. Introduction

The quality of institutions of trading partners is often thought of as one of the channels through which productivity differences are determined. Nevertheless, it was only recently that academic works linking quality of institutions and trade costs, based on Ricardo's theory of comparative advantage, have received particular attention. Although the Ricardian model is not identified non-parametrically, many earlier works have attempted to investigate empirical evidence of institutional quality as one of determinants affecting relative productivity differences, often witnessed when cross-country transactions among developed and developing economies take place.

The notion of institution encompasses a very wide array of economic, political and social structures.<sup>1</sup> In this context, institutions in general refer to man-made rules that govern human behavior. However, in order to derive the policy implications of economic linkage between institutions and comparative advantage, a typical aspect of institutional quality is taken as the basis for analysis. Beck (2003) and Manova (2008) hypothesize that the quality of financial structures is a source of comparative

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<sup>1</sup> See Keizer (2008) for detailed elaboration of the concept and context of institutions.

advantage, and show empirical evidence that countries with developed financial systems have less financing costs. La Porta *et al.* (1997) consider the legal origins that affect investor protection and financial development as one of the most important variables to affect economic development. Acemoglu, Johnson and Robinson (2002), employing historical data, test the economic outcome of the institutional reversal of some former European colonies. They show that poor institutional quality (institutional reversal) accounts for economic performances (income level) in the late 18th and early 19th centuries.<sup>2</sup> The role of various institutions related to the labor market has also been reviewed. Cunat and Melitz (2012) examined the significance of employment and dismissal systems, while Costinot (2009) viewed complexity in the production process and imperfect contract enforcement as a key determinant of productivity and specialization. Davidson *et al.* (1999), and Helpman and Itskhoki (2010) analyze the relationship between institutions related to labor market search frictions and comparative advantage.

Earlier studies derive empirical implications and academic insights for sketching the quality of institutions and trade performance. The distinctive features of institutions that affect comparative advantage include contract enforcement, property rights and investor protection, as illustrated by Levchenko.<sup>3</sup> Many have attempted to identify the economic consequences of contractual incompleteness and patterns of global trade based on earlier works by Williamson (1979, 1985), in which he argues hold-up can lead to underinvestment in relation-specific investment. Among others, Nunn (2007) emphasizes the role of contracting enforcement, paying particular reference to the problems of hold-up and under-investment. If the hold-up problem is expected in trade, producers for intermediary goods may consider under-investment for relationship-specific assets, which results in inefficiency in production.

The hold-up problem inevitably leads to an increase in trade costs in international trade. Various types of prices need to be paid to prevent expected loss from incomplete contract enforcement. The basic logic behind our analysis is simple and clear. The hold-up problem raises transaction costs of arm's length trade by

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<sup>2</sup> Hypothesis, mode, empirical outcome and implication are presented in Acemoglu, Daron, Simon Johnson and James A. Robinson (2002, pp. 1259-1290).

<sup>3</sup> Levchenko argues that contractual incompleteness leads to factor market distortions whereas institutional differences are a source of comparative advantage. For more details please refer to Levechenko (2006, pp. 2-3).

leading to more difficult negotiations and more frequent renegotiations, costly extra investment to improve ex post bargaining positions, and distrust (Besanko *et al.*, 2016, pp. 115-117; Hart, 2009). As a matter of fact, the hold-up problem not only leads to inefficiencies caused by under-investment, but also results in higher transaction costs due to incomplete contract enforcement. Although Nunn (2007) explains the possibility of *hold-up* can lead to *under-investment* in relationship-specific investments and hence to inefficiency, the correlation between inefficiency and transaction cost to reveal the comparative advantage is not deliberately tested and explained.

This strand of the literature on the importance of better institutional quality on trade patterns focuses only on a cost advantage in the production of goods requiring relationship-specific investments, but little attention has been paid to the causality between the hold-up problem and trade costs. We have reviewed that earlier literatures identified a high level of contract enforcements has a positive and robust effect on relaxing frictions among stakeholders. We also learned the institutional quality is very influential as a source of *comparative advantage* in industries requiring *relationship-specific investment* from their supplier. However, earlier works do not clearly illustrate the path through which trade cost is determined when the hold-up problem arises. To fill this gap, we endeavor to investigate empirically whether the quality of institutions, *inter-alia* the level of contract enforcement, has any profound effects on trade costs.

Against these backdrops, we aim to make the following contributions to the existing literature. First, the question of our interest is to investigate the impacts of the quality of institution on trade costs that are different across country-pairs. Among recent studies, Hyun (2018) empirically examine the determinants of trade in intermediate goods focusing on the role of institutional quality and trade cost. However, the literature that studies the importance of institution for comparative advantage investigates the impact of institution on the efficiency of producers and thus only through the lens of exporters' institutions. Therefore, in this study we consider the institutional quality of the exporter and importer. Second, to check the problem of measuring trade costs, we use two alternative measures of trade costs; CIF/FOB ratio and the measurement proposed by Novy (2013). We use CIF/FOB ratio as our proxy variable for trade costs includes costs of sellers as well as buyers such as tax, insurance, transport margins, and so on. As Anderson and van Wincoop (2004) argue, trade costs are very difficult to measure as trade costs are associated with policy variables including information barriers and contract enforcement.<sup>4</sup> For

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<sup>4</sup> Anderson and van Wincoop (2004), p. 693.

these technical difficulties, above ratio inevitably capture the effect of other variables than trade cost alone. To better implement our empirical insights, the method of relative measurement of trade costs proposed by Novy (2013) is also employed. Last but not the least, we test whether institutional differences between trading partners also do matter for trade costs.<sup>5</sup> The premises of our analysis are as follow; if institutional differences between exporter and importer are large, then initial contract negotiations are likely to be time-consuming and costly as trading partners attempt to reduce uncertainty and ambiguity resulting from institutional differences. Moreover, they can lead to increase the probability of engaging in frequent renegotiations then additional costs.

The remainder of the paper is organized as follows. Section II briefly sketches the theoretical background of linking trade cost and institutions as a source of comparative advantage. Section III describes our empirical model and data. Section IV reports the estimation results performed by country and industry level respectively. Section V tests the sensitivity and robustness of our baseline estimates. Section VI concludes with a summary.

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<sup>5</sup> Kuncic (2013) and de Groot *et al.* (2004) show that institutional similarity between exporter and importer has significant and positive impact on bilateral trade on the country level.

## II. How Does Institutional Quality Matter for Trade Costs?

Our study is closely related with existing works that investigate the impact of institution on comparative advantage. In particular, Nunn (2007) and Levchenko (2007) show that countries with better contract enforcement export relatively more in industries for which institutional quality is more important. Nunn (2007) hypothesizes that under-investment occurs if investments are relationship-specific but contracts are not enforced adequately. Conventional economic theory will also lead us to believe that when the demand for intermediate good is associated with relationship-specific investment, the final producer may have the incentive to renegotiate the original contract for it to yield more profit. With these premises, he attempted to test whether countries with better contract enforcement export relatively more in industries for which relationship-specific investments are important.<sup>6</sup> The results of the empirical analysis show that contract enforcement (high level of law enforcement) is a more powerful instrument to explain patterns of trade than capital and labor endowments. Building on his empirical works, Nunn reaches the following conclusion: “I found that countries with good contract enforcement specialize in industries where relationship-specific investments are most important.”<sup>7</sup>

Based on the well-established insights from the incomplete contract literature (Klein, Crawford, and Alchian, 1978; Williamson, 1985; Grossman and Hart, 1986; Hart and Moore, 1990), Nunn (2007) and Levchenko (2007) focus on the channel that when investments are relationship-specific, under-investment occurs if contracts cannot be enforced. That is, countries with better contract institution have less under-investment, the production costs are lower and this cost advantage will be greater in the production of goods requiring relationship-specific investments.

However, the hold-up problem results in not only under-investment but also raising transaction costs of arm’s length trade by leading to more difficult

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<sup>6</sup> Nunn (2007), p. 569.

<sup>7</sup> Ibid., p. 594.

negotiations and more frequent renegotiations, costly extra investment to improve ex post bargaining positions, and distrust (Besanko *et al.*, 2016, pp. 115-117; Hart, 2009). When the possibility of hold-up partners is anticipated, initial contract negotiations will become very costly as each trading party seeks to put safety measures into the contract. Furthermore, parties might make extra investments that improve their post-contractual bargaining positions. Such an investment includes preparing for standby facilities or seeking second sources. As Hart (2009) emphasized, when hold-up transforms a friendly relationship into a hostile one, the consequence could be the breakdown of cooperation. The distrust raises the contracting costs by increasing the direct costs of contract negotiation or impeding the sharing of useful information. Therefore, the presence of the hold-up problem is closely associated with increases in transaction costs.

The literature on sources of comparative advantage focuses on the channel that the hold-up problem reduces in ex ante incentives to invest in relationship-specific assets, but neglects raising transaction costs as the consequences of the hold-up problem. The exception is Greenaway *et al.* (2009), who investigate how differences across countries in overall country-specific trade costs affect comparative advantage by examining whether the commodity composition of countries' trade is driven by differences in countries' trade costs.

A recent strand of empirical literature on the role of institution in international trade presents the evidence that bilateral trade at the aggregate level is significantly affected by the trading countries' institutional quality. Anderson and Marcouiller (2002) show that transaction costs associated with insecure exchange significantly impede international trade where an importer's legal systems poorly enforce contracts, because the contract may not be enforceable across jurisdictional boundaries, bribes may be extorted by customs officials, and shipments may even be hijacked. Arguing that good institutions of an importer lower predation risk and those of an exporter are crucial for offsetting the importer's risk of receiving an inappropriate shipment, Berkowitz *et al.* (2006) demonstrate that both exporter and importer institutions affect trade.

### III. Empirical Model and Data

#### 1. Country Level

Before we investigate the impact of domestic institutions on trade costs at the industry level, we first explore the role of institutions for trade costs on the country level. In particular, we adopt an augmented gravity regression model. Anderson and van Wincoop (2004), Noguera (2012), Novy (2013), and Fouquin and Hugot (2016) specify bilateral trade costs as a function of border-related variables, historic and cultural relations, and distance. Accordingly, we estimate the following regression model to investigate the impact of contracting institutions on trade costs:

$$\ln \tau_{ijt} = \alpha_0 + \beta_1 \ln(Q_{it} + Q_{jt}) + \beta_2 \ln|Q_{it} - Q_{jt}| + \gamma' X' + u_{ijt}, \quad (1)$$

Where  $\tau_{ij}$  denotes trade costs between country  $i$  and  $j$  measured by CIF/FOB ratios,  $Q$  is a measure of the quality of contracting institution, and  $X$  includes bilateral distance, common language, colonial experience, contiguity, and regional trade agreements that affect bilateral trade costs. As discussed above, the institutional quality of the exporter's country as well as the importer's country affects bilateral trade costs. Thus we construct a measure of contract enforcement by summing up the quality of legal institutions of an importer's and exporter's country  $Q_{it} + Q_{jt}$ , measured by "rule of law" obtained from Worldwide Governance Indicators (World Bank). If a country-pair with better contracting institutions has lower trade costs, we expect the significant and negative sign of  $\beta_1$ . We also posit a hypothesis that trade costs between a pair of countries increase in accordance with the disparity in their institutional quality. To test this hypothesis, we include disparity of institutional quality between two countries, which is measured as the absolute value of the difference in each country's quality of institution.

Though the empirical equation (1) includes various country-pair variables such as bilateral distance, border sharing, a common language, and regional trade agreements, the estimates of contracting institutions may still be biased due to

omitted variables. To control for time-varying unobserved country characteristics and time-invariant features of country-pairs, we include time-varying country fixed effects  $\alpha_{it}$  and  $\alpha_{jt}$  as well as country-pair fixed effects  $\alpha_{ij}$ . Thus our estimation equation on the country level is specified as follows:

$$\ln \tau_{ijt} = \alpha_0 + \alpha_{it} + \alpha_{jt} + \alpha_{ij} + \beta_1 \ln(Q_{it} + Q_{jt}) + \beta_2 \ln|Q_{it} - Q_{jt}| + u_{ijt} \quad (2)$$

## 2. Industry Level

The starting point of the analysis on the impact of institutional quality on bilateral trade costs at the industry level is that assumption that contracting institutions are more important for some industries than others. Each industry requires different technological and institutional conditions needed for production and each country differs in their institutional profile to provide these industry-specific requirements. Therefore the literature on source of comparative advantage has adopted this empirical strategy by constructing the interaction term between industry and country characteristics.

Following this empirical strategy we test the hypothesis that contracting institutions do matter for trade costs in industries where legal institution is especially important by estimating the following equation:

$$\ln \tau_{ijkt} = \alpha_0 + \alpha_{ijt} + \alpha_{jkt} + \alpha_{ikt} + \beta_1 \ln[z_{ikt}(Q_{it} + Q_{jt})] + \beta_2 \ln[z_{ikt}|Q_{it} - Q_{jt}|] + u_{ijt}, \quad (3)$$

Where  $z_{ik}$  presents contract intensity or institutional dependence of  $k$  industry in country  $i$ . Levchenko (2007) argues that the more intermediate suppliers needed to produce a good, the more complex the good is. He uses product complexity as proxy for institutional quality and measures the Herfindahl index of intermediate input use as an inverse measure of institutional intensity. Following Levchenko (2007), we measure institutional intensity as one minus the Herfindahl index, in order to express institutional intensity as a positive value.

There are two ways to measure  $z_{ik}$ . Using Rauch's (1999) three-way classification of goods and the share of its inputs that are not bought and sold on a

thick market, Nunn (2007) constructs the “contract intensity” of the industry. But as this has the disadvantage of being time-invariant, Levchenko (2007) suggests using the Herfindahl index by arguing that the larger the number of input suppliers needed to produce a good, the more complex the good is, and therefore the more sensitive it is to imperfect institutions. We measure institutional intensity by calculating a Herfindahl index that is time-variant and different across country-industry pairs because of our dataset with a panel structure.

To address the concern of omitted variables, we include time-varying country-pair fixed effects ( $\alpha_{ijt}$ ), which account for time-invariant and variant unobserved characteristics of country-pairs such as bilateral distance, border sharing, regional trade agreement. We also use time-varying country-industry fixed effects ( $\alpha_{ikt}$  and  $\alpha_{jkt}$ ), which account for time-varying country-industry characteristics including changes in output of a country-industry, tariffs, and so on.

In Eq. (3) trade costs are explained by interactions of an industry characteristic (input concentration) with a country characteristic (quality of institution). This empirical specification draws on the recent empirical studies that identify comparative advantage from interactions between industry and country characteristics. Romalis (2004) uses this functional form to investigate the importance of countries’ factor endowments as a source of comparative advantage. Beck (2003) and Monova (2008) use the interaction of countries’ financial development with industries’ external finance dependence, to present that countries with better financial development have comparative advantage in industries for which access to external finance is more important. Many studies have emphasized that a variety of institution is a source of comparative advantage. These include contract enforcement (Nunn, 2007), contract enforcement and property rights (Levchenko, 2007), and labor-market-related institutions (Costinot, 2009; Cunat and Melitz, 2012; Helpman and Itskhoki, 2010; Davidson *et al.*, 1999). Chor (2010) examines the impact of all institutional elements on comparative advantage simultaneously. A negative coefficient  $\beta_1$  for the interaction term  $z_{ik}(Q_i + Q_j)$  suggests that countries with better contract enforcement have relatively lower trade costs in industries that are exposed to the hold-up problem and thus contract-intensive.

### 3. Trade Costs Measure

We use two alternative measures of trade costs: CIF/FOB ratio and the measurement of relative trade costs suggested by Novy (2013). First, we use CIF/FOB ratio as a proxy variable for trade costs. This includes not only direct transport charges but also indirect transport costs which arise due to the quality of transport and communication infrastructure (Limão and Venables, 2001). CIF/FOB ratio can also be generated by other costs of doing business internationally such as trade margins, taxes in both customs of exporter and importer, time costs due to inefficiency of customs and border management clearance, and so on. Although CIF/FOB ratio measures these costs incurred in international trade, it may suffer from measurement error. Hummels and Lugovskyy (2006) show that small amounts of measurement error in the CIF/FOB ratios can have large effects on the magnitude of these costs.

Our second measure of trade costs is the relative trade costs measure proposed by Novy (2013), who derives a micro-founded measure of trade costs based on the theoretical gravity model of Anderson and van Wincoop (2003). He also demonstrated that this measure of trade costs can be derived from two different trade models – Eaton and Kortum (2002) as well as Chaney (2008) and Melitz and Ottaviano (2008). We extend this measure of aggregate bilateral trade costs to industry level. At the industry level, we compute the relative trade costs as follows:

$$\tau_{ijk} \equiv \left( \frac{t_{ijk} t_{jik}}{t_{iik} t_{jjk}} \right)^{1/2} - 1 = \left( \frac{x_{iik} x_{jjk}}{x_{ijk} x_{jik}} \right)^{\frac{1}{2(\sigma-1)}} - 1, \quad (4)$$

where  $t_{ijk}$  is bilateral trade costs of industry  $k$  and  $x_{ijk}$  denotes nominal export of industry  $k$  from country  $i$  to country  $j$ . Thus  $\tau_{ijk}$  measures bilateral trade costs  $t_{ijk} t_{jik}$  of industry  $k$  relative to domestic trade costs  $t_{iik} t_{jjk}$ .

Following Anderson and van Wincoop (2004) and Novy (2013) we set  $\sigma = 8$ . Using eq. (4), we compute relative trade costs measure of country-industry pairs for the four years 2000, 2005, 2010 and 2015 from the Eora global supply chain database.

The relative trade costs measure in eq. (4) is expressed as tariff equivalent. To hold for consistency of our two measures of trade costs, we express our first measure of trade costs using CIF /FOB ratio as the form of  $(CIF/FOB - 1)$ . Each measure of trade costs has both advantages and disadvantages. While the measure of trade costs using CIF /FOB ratio is not symmetric,  $\tau_{ijk} \neq \tau_{jik}$ , but has potential measurement error problem, the relative measure of trade costs suggested by Novy (2013) captures a wide range of trade cost components but is symmetric,  $\tau_{ijk} = \tau_{jik}$ .

## 4. Data

Data on country-pair specific variables, such as distance, colonial ties, border sharing, and common languages are obtained from the Centre d'Etudes Prospectives et d'Informations Internationales (CEPII). Data for regional trade agreements are obtained from the WTO Regional Trade Agreements database. We measure the institutional quality by using "rule of law" obtained from Worldwide Governance Indicators (World Bank), ranging from approximately -2.5 to 2.5. Since the natural log of the sum and differences of two countries' institution indicators are used, we rescale each indicator by adding 3. Data on trade costs are from the Eora global supply chain database, which consists of a multi-region input-output table (MRIO) model. Our data set covers 187 countries<sup>8</sup> for 11 primary and manufacturing industries<sup>9</sup> and four years, 2000, 2005, 2010 and 2015. Table 1 shows the summary statistics.

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<sup>8</sup> See Appendix Table 1.

<sup>9</sup> See Appendix Table 2.

**Table 1. Summary Statistics at the Industry Level**

Variable	Mean	Std. Dev.	Minimum	Maximum
$\ln \tau_{ijkt} (cif - fob)$	4.95	1.44	-7.87	12.54
$\ln \tau_{ijkt} (Novy)$	5.55	0.40	-3.14	6.66
$\ln(Dist)$	8.73	0.77	4.09	9.90
contiguity	0.02	0.13	0	1
common language	0.14	0.34	0	1
colony	0.01	0.11	0	1
RTA	0.10	0.30	0	1
$\ln [z_{ikt} (Q_{it} + Q_{jt})]$	0.09	0.66	-5.42	2.30
$\ln [z_{ikt}   Q_{it} - Q_{jt}  ]$	-2.23	1.29	-16.27	1.25

## IV. Estimation Results

### 1. Country level

Table 2 presents the estimation results on the country level. Columns (1)-(4) show the cross-sectional estimates. The estimated coefficients of the control variables behave in the way the model predicts. The coefficients of distance in columns (1)-(4) are positive and statistically significant at the 1 percent level and the coefficients of border adjacency, use of common language, and sharing colonial exhibit a negative (-) sign and are statistically significant. Column (5) presents the

**Table 2. Estimation Results on the Country Level**

Dep. Variable: $\ln \tau_{ijt}(cif - fob)$	2000 (1)	2005 (2)	2010 (3)	2015 (4)	Panel (5)
$\ln(Dist)$	0.352 (0.010)a	0.332 (0.011)a	0.311 (0.011)a	0.327 (0.011)a	
Contiguity	-0.310 (0.047)a	-0.352 (0.050)a	-0.411 (0.053)a	-0.311 (0.054)a	
common language	-0.105 (0.018)a	-0.138 (0.020)a	-0.178 (0.021)a	-0.244 (0.021)a	
Colony	-0.684 (0.056)a	-0.762 (0.059)a	-0.734 (0.064)a	-0.624 (0.064)a	
RTA	-0.333 (0.028)a	-0.473 (0.026)a	-0.396 (0.023)a	-0.341 (0.022)a	-0.081 (0.009)a
$\ln(Q_i + Q_j)$	-2.227 (0.033)a	-2.193 (0.036)a	-2.274 (0.039)a	-1.731 (0.041)a	-0.082 (0.034)b
$\ln  Q_i - Q_j $	0.022 (0.005)a	0.042 (0.006)a	0.042 (0.006)a	0.021 (0.006)a	0.004 (0.002)c
country fixed effects	Yes	Yes	Yes	Yes	
time-varying country fixed effects					Yes
Country-pair fixed effects					Yes
No. obs.	28,453	28,258	28,019	26,830	111,412
Adj. R_sq.	0.47	0.48	0.45	0.44	0.93

Note: A constant term is included but not reported. Standard errors are given in parentheses. a, b, and c denote statistical significance at the 10%, 5%, and, 1% levels, respectively

pooled regression results with time-varying country fixed effects and country-pair fixed effects. The coefficient of the sum of the institutional quality  $Q_{it} + Q_{jt}$  shows the negative sign and is statistically significant at the 5 percent level, implying that a country-pair with better legal institution has lower trade costs. In addition, the coefficient of the difference in the institutional quality is positive and statistically significant. This means that trade costs increase as disparity between two countries' institutional quality increases.

## 2. Industry level

The estimation results at the industry level are reported in Table 3. Column (1) presents the regression results when time-varying country-pair fixed effects are not included and column (2) reports estimates of Eq. (3) without time-varying exporter-industry fixed effects. Column (3) shows the estimation results with all three fixed effects that we consider. We find that the coefficient of the interaction term of institution intensity with the sum of institutional quality is negative and statistically significant at the 1 percentage level, implying that a country-pair with better legal institution has lower trade costs in industries for which a hold-up problem is important. Furthermore, we also find that the coefficient of the interaction term between institution intensity and differences in each country's institutional quality is positive and statistically significant. This means that trade costs between two countries in institutionally intensive industries are lower when their institutional quality are more similar.

**Table 3. Estimation Results at the Industry Level**

Dep. Variable: $\ln \tau_{ijk}(cif - fob)$	(1)	(2)	(3)
$\ln(Dist)$	0.359 (0.002)a		
contiguity	-0.415 (0.007)a		
common language	-0.152 (0.003)a		
colony	-0.639 (0.008)a		
RTA	-0.385 (0.003)a		
$\ln [z_{ikt}(Q_{it} + Q_{jt})]$	-0.150 (0.007)a	-0.276 (0.007)a	-0.146 (0.007)a
$\ln [z_{ikt}   Q_{it} - Q_{jt}  ]$	0.036 (0.007)a	0.012 (0.004)a	0.014 (0.004)a
time varying country-pair fixed effects	No	Yes	Yes
time-varying importer-industry fixed effects	Yes	Yes	Yes
time-varying exporter-industry fixed effects	Yes	No	Yes
No. obs.	1,359,706	1,359,706	1,359,706
Adj. R_sq.	0.61	0.68	0.76

Note: A constant term is included but not reported. Standard errors are given in parentheses. a, b, and c denote statistical significance at the 10%, 5%, and, 1% levels, respectively.

## V. Robustness Check

### 1. Alternative Samples

We now test the sensitivity and robustness of our baseline estimates. We consider alternative samples by dividing country-pairs into developed and developing countries. The estimation results are presented in Table 4. Columns (1)-(2) and (3)-(4) show the estimation results for developed and developing country pairs, respectively. The time varying country-pair fixed effects are not included in column

**Table 4. Alternative Samples**

Dep. Variable: $\ln \tau_{ijk}(cif - fob)$	Developed countries		Developing countries	
	(1)	(2)	(3)	(4)
$\ln(Dist)$	0.264 (0.016)a		0.316 (0.001)a	
contiguity	0.201 (0.029)a		-0.627 (0.007)a	
common language	-0.052 (0.024)b		-0.205 (0.003)a	
Colony	-0.286 (0.032)a		-0.810 (0.017)a	
RTA	-0.303 (0.036)a		-0.277 (0.004)a	
$\ln[z_{ikt}(Q_{it} + Q_{jt})]$	-0.676 (0.211)a	-1.920 (0.940)b	-0.084 (0.007)a	-0.036 (0.007)a
$\ln[z_{ikt}   Q_{it} - Q_{jt}  ]$	0.006 (0.006)	2.013 (0.930)b	0.014 (0.001)a	0.005 (0.004)
time varying country-pair fixed effects	No	Yes	No	Yes
time-varying importer-industry fixed effects	Yes	Yes	Yes	Yes
time-varying exporter-industry fixed effects	Yes	Yes	Yes	Yes
No. obs.	21,111	21,111	1,038,881	1,038,881
Adj. R_sq.	0.78	0.82	0.58	0.75

Note: A constant term is included but not reported. Standard errors are given in parentheses. a, b, and c denote statistical significance at the 10%, 5%, and, 1% levels, respectively.

(1) and (3). In all models, we find that the coefficients of the interaction terms between input concentration and country's institutional quality are the expected signs and statistically significant. While the coefficient of difference in institutional quality for developed countries in column (2) is significant at the 5 percentage level, however, that for developing countries is insignificant in column (4).

Overall, the robustness check provides further evidence that the quality of legal institutions in an exporting and importing country are important determinants of trade costs in industries that are more exposed to the hold-up problem and thus are contract-intensive. However, the estimation results show that the impact of institutional differences on trade costs is mixed. Thus we cannot conclude that the similarity of institutional quality between exporter and importer is associated with lower trade costs.

## **2. Alternative Measure of Trade Costs**

In this section, we explore to what extent our estimation results obtained above is robust to the alternative measure of trade costs suggested by Novy (2013). Table 5 shows the estimation results.

Column (1) presents the regression results when time-varying country-pair fixed effects are not included. We find that the coefficients of the control variables such as distance, contiguity, common language, colony and regional trade agreements have the expected signs and are significant at the 1 percentage level. Furthermore, in column (1) and (2), the coefficient of the interaction term of institution intensity with the sum of institutional quality is negative and statistically significant at the 1 percentage level. This holds for the estimation results presented in column (3), in which all three fixed effects we consider are included. However, the coefficients of the interaction term of institution intensity with the differences between countries are not significant in column (2) and (3). We do not find that the similarity of institutional quality between exporter and importer does matter for trade costs.

**Table 5. Relative Trade Costs Measure suggested by Novy (2013)**

Dep. Variable: $\ln \tau_{ijk}(\text{Novy})$	(1)	(2)	(3)
$\ln(\text{Dist})$	0.136 (0.001)a		
contiguity	-0.219 (0.002)a		
common language	-0.047 (0.001)a		
colony	-0.237 (0.003)a		
RTA	-0.119 (0.001)a		
$\ln [z_{ikt} (Q_{it} + Q_{jt})]$	-0.308 (0.005)a	-0.444 (0.006)a	-0.402 (0.005a)
$\ln [z_{ikt}   Q_{it} - Q_{jt}  ]$	0.014 (0.000)a	-0.001 (0.001)	-0.001 (0.001)
time varying country-pair fixed effects	No	Yes	Yes
time-varying importer-industry fixed effects	Yes	Yes	Yes
time-varying exporter-industry fixed effects	Yes	No	Yes
No. obs.	650,536	704,427	704,383
Adj. R_sq.	0.70	0.78	0.86

Note: A constant term is included but not reported. Standard errors are given in parentheses. a, b, and c denote statistical significance at the 10%, 5%, and, 1% levels, respectively.

## VI. Summary and Concluding Remarks

This paper investigates the impact of institutional quality on trade costs at the country level as well as at the industry level. To do this, we use two measures of trade costs, namely CIF/FOB ratio and the relative trade costs proposed by Novy (2013). Using the Eora global supply chain database covering 187 countries for 11 primary and manufacturing industries and four years, 2000, 2005, 2010 and 2015, we calculate CIF/FOB ratio and the relative trade costs proposed by Novy (2013) as the proxy variable for trade costs. To address the concern of omitted variables, we include time-varying exporter-importer, exporter-industry and importer-industry fixed effects. At the country level, we find that the institutional quality of exporter and importer is negatively associated with trade costs and trade costs increase as disparity between two countries' institutional quality increases. At the country-industry level, we find that a country-pair with better legal institution has lower trade costs in industries for which a hold-up problem is important. This result is robust to the alternative measure of trade costs that measures bilateral trade costs to domestic trade costs. However, the analysis on the impact of institutional differences on trade costs yields mixed results. While in the estimation for trade costs measured by CIF/FOB ratio (Table 3) institutional difference between countries does matter for trade costs, the coefficient of institutional difference is not significant when trade costs are measured by the Novy (2013) approach.

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## References

- Acemoglu, D., S. Johnson, and J. Robinson. 2002. "Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution." *Quarterly Journal of Economics*, 117: 1231-1294.
- Anderson, James E., and Douglas Marcouiller. 2002. "Insecurity and the Pattern of Trade: An Empirical Investigation." *The Review of Economics and Statistics*, 84(2): 342-352.
- Anderson, James E., and Eric van Wincoop. 2003. "Gravity with gravitas: a solution to the border puzzle." *American Economic Review*, 93: 170-192.
- \_\_\_\_\_. 2004. "Trade Costs." *Journal of Economic Literature*, 42:691-751.
- Besanko, D., D. Dranove, M. Shanley, and S. Schaefer. 2016. *Economics of Strategy*. 7<sup>th</sup> Ed. Wiley.
- Beck, T. 2003. "Financial dependence and international trade." *Review of International Economics*, 11: 296-316.
- Berkowitz, D., J. Moenius, and K. Pistor. 2006. "Trade, law, and product complexity." *The Review of Economics and Statistics*, 88 (2): 363-373.
- Chaney, T. 2008. "Distorted gravity: the intensive and extensive margins of international trade." *The American Economic Review*, 98: 1707-1721.
- Chor, D. 2010. "Unpacking sources of comparative advantage: a quantitative approach." *Journal of International Economics*, 82(2): 152-167.
- Costinot, A. 2009. "On the origins of comparative advantage." *Journal of International Economics*, 77: 255-264.
- Cunat, A., and M.J. Melitz. 2012. "Volatility, labor market flexibility, and the pattern of comparative advantage." *Journal of the European Economic Association*, 10 (2): 225-254.
- Davidson, C., L. Martin, and S. Matusz. 1999. "Trade and search generated unemployment." *Journal of International Economics*, 48 (2): 271-299.
- De Groot, H. L. F., G.-J. Linders, P. Rietveld, and U. Subramanian. 2004. "The institutional determinants of bilateral trade patterns." *Kyklos*, 57(1): 103-123.

- Eaton, J., and S. Kortum. 2002. "Technology, Geography, and Trade." *Econometrica*, 70: 1741-1779.
- Fouquin, M., and H. Hugot. 2016. "Back to the Future: International Trade Costs and the Two Globalizations." Mimeo.
- Greenaway, D., D. McGowan and C. Milner. 2009. "Country Trade Costs, Comparative Advantage and the Pattern of Trade: Multi-Country and Product Panel Evidence." Discussion Papers 09/26. University of Nottingham, GEP.
- Grossman, Sanford, and Oliver Hart. 1986. "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration." *Journal of Political Economy*, 94: 691-719.
- Hart, O. 2009. "Hold-Up, Asset Ownership, and Reference Points." *Quarterly Journal of Economics*, 124: 267-300.
- Hart, Oliver, and John Moore. 1990. "Property Rights and the Nature of the Firm." *Journal of Political Economy*, 98: 1119-1158.
- Helpman, E., and O. Itskhoki. 2010. "Labour market rigidities, trade and unemployment." *Review of Economic Studies*, 77 (3): 1100-1137.
- Hyun, Hea-Jung. 2018. "Institutional quality and trade in intermediate goods." *Journal of Korea Trade*, 22(2): 162-186.
- Hummels, D., and V. Lugovskyy. 2006. "Are Matched Partner Trade Statistics a Usable Measure of Transportation Costs?" *Review of International Economics*, 14: 69-86.
- Keizer, Piet. 2008. "The Concept of Institution: Context and Meaning." Tjalling C. Koopmans Research Institute, Discussion Paper Series no: 08-22.
- Klein, Benjamin, Robert Crawford, and Armen Alchian. 1978. "Vertical Integration, Appropriable Rents, and the Competitive Contracting Process." *Journal of Law and Economics*, 21: 297-326.
- Kuncic, A. 2013. "Trade and Institutions: Do not forget Institutional distance." Mimeo.
- La Porta, Rafael, Florencio Lopez-De-Silanes, Andrei Shleifer, and Robert W. Vishny. 1997. "Legal Determinants of External Finance." *The Journal of Finance*, 52(3): 1131-1150.
- Levchenko, A. 2006. "Institutional quality and international trade." Working Paper.

(September)

- \_\_\_\_\_. 2007. "Institutional quality and international trade." *Review of Economic Studies*, 74: 791-819.
- Limão, N., and A. Venables. 2001. "Infrastructure, Geographical Disadvantage, Transport Costs and Trade." *World Bank Economic Review*, 15: 451-479.
- Manova, K. 2008. "Credit constraints, equity market liberalizations and international trade." *Journal of International Economics*, 76 (1): 33-47.
- Melitz, M., and G. Ottaviano. 2008. "Market Size, Trade, and Productivity." *Review of Economic Studies*, 75: 295-316.
- Noguera, G. 2012. "Trade Costs and Gravity for Gross and Value Added Trade." University of Warwick. Mimeo.
- Novy, D. 2013. "Gravity Redux: Measuring International Trade Costs with Panel Data." *Economic Inquiry*, 51(1):101-21.
- Nunn, N. 2007. "Relationship-specificity, incomplete contracts, and the pattern of trade." *Quarterly Journal of Economics*, 122(2): 569-600.
- Rauch, J. 1999. "Networks versus Markets in International Trade." *Journal of International Economics*, 48(1): 7-35.
- Romalis, J. 2004. "Factor proportions and the structure of commodity trade." *American Economic Review*, 94: 67-97.
- Subramanian, Arvind and Shang-Jin Wei. 2007. "The WTO promotes trade, strongly but unevenly." *Journal of International Economics*, 72(1): 151-175. Elsevier.
- Williamson, Oliver E. 1979. "Transaction Cost Economics: The Governance of Contractual Relations." *Journal of Law and Economics*, XXII: 233-261
- \_\_\_\_\_. 1985. *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*. The Free Press.

# Appendix

## Appendix 1. Country List

Afghanistan	China	Iraq	New Zealand	Switzerland
Albania	Colombia	Ireland	Nicaragua	Syria
Algeria	Congo	Israel	Niger	Taiwan
Andorra	Costa Rica	Italy	Nigeria	Tajikistan
Angola	Croatia	Jamaica	Norway	Thailand
Antigua	Cuba	Japan	Oman	TFYR
Argentina	Cyprus	Jordan	Pakistan	Togo
Armenia	Czech Republic	Kazakhstan	Panama	Trinidad and
Aruba	Cote d'Ivoire	Kenya	Papua New Guinea	Tobago
Australia	DR Congo	Kuwait	Paraguay	Tunisia
Austria	Denmark	Kyrgyzstan	Peru	Turkey
Azerbaijan	Djibouti	Laos	Philippines	Turkmenistan
Bahamas	Dominican	Latvia	Poland	Former USSR
Bahrain	Republic	Lebanon	Portugal	Uganda
Bangladesh	Ecuador	Lesotho	Qatar	Ukraine
Barbados	Egypt	Liberia	South Korea	UAE
Belarus	El Salvador	Libya	Moldova	UK
Belgium	Eritrea	Liechtenstein	Romania	Tanzania
Belize	Estonia	Lithuania	Russia	Tanzania
Benin	Ethiopia	Luxembourg	Rwanda	USA
Bermuda	Fiji	Macao SAR	Samoa	Uruguay
Bhutan	Finland	Madagascar	San Marino	Uzbekistan
Bolivia	France	Malawi	Sao Tome and	Vanuatu
Bosnia and	French Polynesia	Malaysia	Principe	Venezuela
Herzegovina	Gabon	Maldives	Saudi Arabia	Viet Nam
Botswana	Gambia	Mali	Senegal	Yemen
Brazil	Georgia	Malta	Serbia	Zambia
British Virgin	Germany	Mauritania	Seychelles	Zimbabwe
Islands	Ghana	Mauritius	Sierra Leone	
Brunei	Greece	Mexico	Singapore	
Bulgaria	Greenland	Monaco	Slovakia	
Burkina Faso	Guatemala	Mongolia	Slovenia	
Burundi	Guinea	Montenegro	Somalia	
Cambodia	Guyana	Morocco	South Africa	
Cameroon	Haiti	Mozambique	South Sudan	
Canada	Honduras	Myanmar	Spain	
Cape Verde	Hong Kong	Namibia	Sri Lanka	
Cayman Islands	Hungary	Nepal	Sudan	
Central African	Iceland	Netherlands	Suriname	
Republic	India	Netherlands	Swaziland	
Chad	Indonesia	Antilles	Sweden	
Chile	Iran	New Caledonia	Macedonia	

Source: Eora global supply chain database.

## Appendix 2. Industry Classification

	Industry
1	Agriculture
2	Fishing
3	Mining and Quarrying
4	Food and Beverages
5	Textiles and Wearing Apparel
6	Wood and Paper
7	Petroleum, Chemical and Non-Metallic Mineral Products
8	Metal Products
9	Electrical and Machinery
10	Transport Equipment
11	Other Manufacturing

Source: Eora global supply chain database.

## Appendix 3. List of Developed Countries

Australia	Ireland
Austria	Italy
Belgium	Japan
Canada	Luxemburg
Switzerland	Netherland
Germany	Portugal
Denmark	Norway
Finland	Sweden
France	U.K.
Greece	U.S.A.

Source: Subramanian, Arvind & Wei, Shang-Jin(2007), pp. 151-175.

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## 국문요약

비교우위의 원천에 대한 Nunn(2007), Levchenko(2007) 등 선행 연구는 속박(hold-up) 문제가 존재할 경우, 제도의 질이 높은 국가가 그렇지 않은 국가에 비해 과소투자의 문제에 따른 비효율성이 덜 심각하고 이에 따라 생산비용이 낮아서 제도 집약적인 산업에 비교우위를 갖는다는 점을 강조하고 있다. 그러나 속박의 문제는 단지 과소투자의 문제뿐만 아니라 거래 계약 체결 자체를 어렵게 하고, 재협상의 가능성을 계약서에 포함하기 위해 노력하거나, 협상에서의 우위를 점하기 위해 불필요한 추가적인 설비를 마련하는 등 거래비용을 증가시킨다. 본 연구는 세계 속박의 가능성이 존재할 때 제도의 질이 낮은 국가 간의 무역비용이 제도의 질이 높은 국가 간의 무역비용에 비해 상대적으로 더 높다는 가설을 설정하고 87개국 11개 제조 산업을 대상으로 검증하였다. 특히 무역비용의 측정 오류를 피하기 위해 CIF/FOB 비율과 더불어 Novy(2013)가 제시한 상대적 무역비용 측정치를 이용하였다. 또한 누락 변수의 편의를 통제하기 위해 수출국-수입국-연도, 수입국-산업-연도 및 수출국-수입국-연도 고정효과를 적용하였다. 분석 결과, 제도의 질이 높은 국가는 제도 집약적인 산업에서의 무역비용이 그렇지 않은 국가에 비해 낮은 것으로 나타났다. 이러한 결과는 국가를 선진국과 개도국으로 분리하고, Novy(2013)가 제시한 방법으로 무역비용을 측정하더라도 여전히 강건한 것으로 나타났다.

**핵심용어:** 무역비용, 제도, 비교우위

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“Institutional Economic Integration between South and North Korea and the Economic Impacts of Integration” (공저, *Asian Economic Journal*, 2018)

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# Institutional Quality, Trade Costs and Comparative Advantage

Sangkyom KIM and Soon Chan Park

We attempt to test the impacts of the quality of institution, of both exporters and importers, on trade costs using CIF/FOB ratio and the relative measure of trade costs proposed by Novy (2013). The outcome shows that the institutional quality of exporter and importer is negatively associated with trade costs and trade costs increase as disparity between two countries' institutional quality increases. At the country-industry level, we find that a country-pair with better legal institution has lower trade costs in industries for which a hold-up problem is important.

