Contract Institution and Differentiated Exports

Xinpeng Xu, Faculty of Business, the Hong Kong Polytechnic University, Hung Hom, Hong Kong;

Jan P Voonb, Department of Economics, Faculty of Social Science, Lingnan University, Tuen Mun, Hong Kong;

Yan Shang, Industrial and Commercial Bank of China (ICBC), Beijing, China

Abstract

This paper examines how quality of contracting institutions in source and destination countries influence exports of homogeneous and heterogeneous goods. Controlling for endogeneity and establishing causality between contracting institutions and exports, we show that competitive advantages of firms in exports of both homogeneous goods (such as agricultural and mineral commodities) and heterogeneous goods (such as manufactured goods) are eroded by weak contracting institutions in their source countries. We also find that weak contracting institutions in the destination countries exert significant negative impacts on heterogeneous but not homogeneous exports. To explain for the differential source and destination countries' contracting institutional constraints on differentiated exports, we extend the conventional institutional cost theory by taking the differences in relationship specificity of heterogeneous and homogeneous goods into account. Our analysis provides practical location and production strategies for exporting firms.

Introduction

Exporting is one of the most important business activities conducted by business firms and it is the most commonly used firm strategy for international expansion and diversification (Cassiman and Golovko, 2011; Lee and Weng, 2013; Salomon and Shaver, 2005; Shaver, 2011). Despite its importance, the bulk of the international business and management literature has hitherto skewed toward research on joint ventures, foreign investments and entry modes. There is a paucity of studies on exports. A possible explanation for this anomaly is that extensive firm level export data disaggregated by product types covering all the exporting countries are difficult to procure (Salomon and Jin, 2008). In the face of the paucity of data and research on firms' differentiated exports distinguished by their destination countries, business firms lack the information necessary for making appropriate strategies on exports such as location choices as well as product choices. This paper fills in the gap by firms to make these types of strategic decisions.

There are a number of factors affecting firm's location and exporting strategies. The international business management literature points to the importance of institutions among others (Lee and Weng, 2013). Good institutions are needed because business firms often lack familiarity with the foreign environments (Lee, Shenker and Li, 2008) and institutional differences make it harder for firms to operate across countries (Berry, Guillen and Zhou, 2010). A rationale for institutional research is that good institutions provide location advantage by reducing transaction/business costs, which in turn raises investments and export capabilities. While the importance of institutions for exporters has been recognized (Antras and Foley, 2014), there is a paucity of studies on the relative importance of contracting institutions in source and destination countries in affecting home country's exports. Previous papers examined contracting institutions mainly on one country setting only, focusing on either source or destination country but not both. For instance, Nunn (2007) stressed the importance of source but not destination country's contracting institutions while some others (Antras and Yeaple, 2014) emphasize the importance of destination but not source country's institutions. Berry, Guillen and Zhou (2010) and Kostova and Roth (2002) examined the institutional distance or institutional duality between the source and destination countries (for example, the institutional gap between the rich and poor countries) but did not compare the relative importance of the source and the destination countries. This paper extends this literature by assessing the relative importance of source and destination country's contracting institutions in influencing different types of exports.

In addition to examining the relative importance of source and destination country's contract institutions in firms' export decisions, we segregate total exports into relatively homogeneous (agricultural and mineral) and relatively heterogeneous (manufacturing) exports. The international business management literature hitherto focuses on total exports without reference to product heterogeneity (Shaver, 2011). However, analysis of exports differentiated by product categories provides firms with useful strategies on production, as contracting institutions may affect heterogeneous and homogeneous goods differently even in the same country. In this paper, we conjecture that differentiated exports face different institutional cost constraints in source or destination country. For example, heterogeneous products have been reported to be more relationship-specific and hence more contract-intensive whereas standardized homogeneous goods (once exported to destination countries, as we shall see) are conjectured to be less relationship-specific and hence less contract-intensive. In the international business management literature, the institutional cost theory has been used without reference to differentiated exports. In this paper, we aim to extrapolate the institutional cost theory with particular relevance to differentiated goods by incorporating the notion of relationship specificity, which is defined as the degree of upstream and downstream trade coordination with input suppliers and purchasers.

Globalization and proliferation of supply chains, contract manufacturing, and production customization at the local and international production levels have heightened the importance of contracting institutions in recent decades (Antras and Yeaple, 2014). Exporters care about formal contract enforcement institution more than any other formal types of institution (Nunn, 2007). The previous institutional theory posits that inefficient formal contracting institutions are cost constraints that reduce trade flows. This set of theory alone, however, cannot explain for instance why the flows of homogeneous goods to destination countries may not be thwarted by weak contract institution (or contracting institutional cost constraint) in the destination country. It also cannot explain why contracting institutions exert differential impacts on both heterogeneous and heterogeneous goods in the source country (or in the destination country). Our theoretical proposition is that contract dependency and hence the importance of contracting institution is governed by relationship specificity. Relationship-specific goods are more contract-intensive (Nunn, 2007). Relationship-specific goods require upstream transactions with suppliers and/or downstream transactions with the buyers. At the local level (within a source country), firms face higher institutional constraints in production if their production involves substantial upstream trades that are relationship-specific. Production of heterogeneous goods is more complicated and more relationship-specific than production of homogeneous goods because the former seems to be embroiled in a more convoluted loop of supply chain management involving upstream/downstream transactions.

However, as paper shows, productions of homogeneous goods such as metal, rubber, animal and grain products also embody a certain degree of relationship specificity.[1] At the global level, the reliance of supply chain is more intense, especially in exports of heterogeneous manufacturing products, as virtually all the trading partners are potentially upstream or downstream suppliers of intermediate goods for one another. Heterogeneous goods are therefore more relationship-specific and more contract-intensive at the global level than at the local level.

A setback of the institutional cost theory is that it postulates that all types of goods, including homogeneous products, face similar contracting cost constraints. That is, if the contracting institution is weak in a destination country, homogeneous exports to that country will be impeded. Our paper, however, shows that this is not the case. A rationale for this is that homogeneous goods are not relationship-specific in the sense that lavish downstream trade coordination in destination countries may not be necessary. We show in this paper that homogeneous goods are largely sold competitively on commodity exchanges or organized markets that are quite reputable and trustworthy. Consequently, weak contracting institutions in destination countries may not be a crucial factor that significantly deters the exports of homogeneous goods. Hence, our paper demonstrates that the traditional institutional cost theory should be complemented by the notion of relationship specificity in the light of product heterogeneity on the flows of exports from source to destination countries.

Our empirical results show that the competitive advantages of firms in exports of both homogeneous and heterogeneous goods are indeed eroded by weak contracting institutions in their source countries. Exporters should therefore take source country's contracting institution into account regardless of product heterogeneity. An interpretation that homogeneous good productions in source countries are neither relationship-specific nor contract-intensive appears to be erroneous. As we will show in this paper, homogeneous goods can also be relationship-specific mainly because upstream trade coordination with input suppliers is needed. We also find that weak contracting institutions in the destination countries exert significant negative impacts on heterogeneous exports but not on homogeneous exports. This is in line with our theoretical extrapolation that homogeneous goods, once arrived at the export destinations, are not relationship-specific, as downstream

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[1] According to the Standard International Trade Classification (SITC), relatively homogeneous commodities include food and live animals (SITC 0), beverages and tobacco (SITC 1), crude materials (SITC 2), minerals, fuels, lubricants and raw materials (SITC 3), animal and vegetable oils, fats and waxes (STIC 4), chemicals and related products (SITC 5); and relatively heterogeneous goods comprise manufactured goods (SITC 6), machinery and transport equipment (SITC 7), miscellaneous manufactured articles (SITC 8), and other transactions (SITC 9).

significant downstream trade coordination is not required. The misconception that all types of exports including homogeneous goods in destination countries are equally subject to contractual cost constraints as hitherto advanced in the institutional cost theory should be rectified accordingly. Our empirical results provide practical strategic implications for firms in making export decisions, location choices as well as production choices.

Theory and Hypotheses

There is a wide array of inefficiencies (or cost constraints) caused by the lack of contractual enforcement across countries. These include contract enforcement deficiencies in tackling opportunistic behavior, moral hazards, technological leakage, quality complaints, logistics problem, trade disputes, and many others. Complete contract effectively minimizes such "hold-up" costs. Contract is a critical mechanism by which firms protect themselves from partner's manipulations (Hamel *et al*, 1989). Incomplete contracts, as exemplified in countries with weak or inefficient contracting institutions, limit the international fragmentation of the production process (Antras, 2005). A theoretical foundation in previous research is that good contracting institutions lower transaction costs of cross-border activities by reducing information asymmetries and moral hazards and therefore enhance competitive advantages of exporting firms (Aulakh and Gencturk, 2008; Antras and Yeaple, 2014; Dunning and Lundan, 2008; Meyer, 2001; Meyer and Peng, 2005; North, 1990; Peng, 2008). The notion of transaction cost is often associated with inefficiency that arises when business transactions are not fully governed or secured by contracts. Antras and Yeaple (2014) delineated two types of costs that emanate from rent dissipation and hold-up inefficiencies. When one country exports to another, the latter can "hold up" the former for the value of that commitment, thus giving rise to severe economic costs. Complete contracts (mimicked by strong contracting institutions) minimize "hold up" problems that are so common in exporting. Nunn (2007) reported that contracting institutions explain more of the global pattern of trade than countries' endowments of capital and skilled labor combined, pointing to the sheer importance of contracting institutions.

The literature above acknowledges the cost constraints imposed by contracting institutional weaknesses. The traditional institutional cost theory stipulates that if a country's contracting institution is weak, then exports, often indicated in the international business literature by the flows of composite goods across countries, will be reduced. The international business literature largely ignores (a) the flows of differentiated products and (b) the relative importance of contracting institutions in both source and destination countries. When these

factors are taken into account, the traditional institutional cost theory appears to be inadequate in explaining for instance why poor contracting institutions in source or destination country may not significantly impede the flows of certain types of goods. As a matter of fact, the contracting institutional cost constraints in source and destination countries vary according to the type of goods being exported. In this paper, we extrapolate the existing institutional cost theory by taking into account the differences in source and destination countries as well as the differences in the types of exports. For heterogeneous products, relationship specificity, as we shall show, is larger in destination than in source countries. For homogeneous products, relationship specificity, as shown in this paper, is larger in source than in destination countries. This theoretical extrapolation together with the empirical evidence presented herein constitutes our major contribution to international business management theory.

Firstly, does source country's contracting institution matter in the case of heterogeneous exports? The literature provides some explanations why source country's contracting institutions are important in heterogeneous exports. A couple of earlier studies by Grossman and Hart (1986) as well as Hart and Moore (1990) pointed to the channel that weak contracting institutions in the home country result in under-investments, which in turn reduce capacity to export. Anderson and Marcouiller (2002) also found that trade expands dramatically when it is supported by strong institutions in source countries, especially by a legal system capable of enforcing commercial contracts, which reduce under-investments. Their logics are consistent with each other: source countries with good contractual enforcement have less under-investments and the costs of producing inputs and final goods using them are lower. The under-investment hypothesis has been empirically tested (see Nunn, 2007 for a review). This provides a possible channel to explain why poor contracting institutions in the source countries has impeded manufactured goods exports.

In the context of this paper, heterogeneous exports are mainly non-standardized manufactured goods. Manufacturing often involves complex production systems requiring upstream and downstream trade coordination due to substantial product transformation within the source country. Prior to exporting, the producer/exporter has to liaise with the upstream suppliers for raw material inputs. After the raw material transformations, the producer may then sells her partially processed components to her downstream "partners". Contracts that facilitate multiple transactions at the different stages of production involving both upstream and downstream trade facilitations are needed to ensure efficiency (Mesquita and Lazzarini, 2008). Productions of heterogeneous goods for exports are, therefore, very relationship-specific and contract-intensive. Hence, we conjecture that:

H1a: The better the source country's contracting institution, the more heterogeneous goods its firms will export.

The above examines the importance of contracting institution in a source country. Does destination country's contract institution matter in exports of heterogeneous goods? Intuitively, as espoused in the institutional cost theory, exporters will incur very high costs of doing business in destination countries with poor contracting institutions. Without supporting institutions in destination countries, agency relations are unlikely to be established, since the agents overseas can act opportunistically (Greif, 1993 and Greif, 2005). Exporting firms must make business deals with their relevant agents or partners in destination countries, and such co-ordinations are crucial in global manufacturing. The importer of the partially processed or intermediate goods in a destination country may default and not pay fully for goods it orders, or the exporter of these goods may not produce and deliver goods as specified. Global production system is often subject to moral hazards (e.g. the seller delivers core inputs of lower quality, in an untimely manner, or the buyer bargains for price reductions after the seller consummates specific investments), and the risks are greater in a cross-country setting as the downstream firms (to which the goods are exported) are located in geographically distanced locations. For an international production setting in which a country exports a manufactured product or component to another country, firms in exporting country become the upstream suppliers and firms in the destination countries become the downstream buyers. If multiple countries are involved, exporters are embroiled in a very complicated web of global production. These appear to be very relationship-specific and contract-intensive.

There has been a growth of empirical literature that confirms our contract specificity proposition. Berkowitz, Moenius and Pistor (2006) found that countries with better contract enforcement have comparative advantages in highly differentiated goods. Acemoglu, Antras and Helpman (2006) found that low substitutability across intermediate manufactured inputs makes that sector more sensitive to contractual frictions. Hall and Soskice (2001) indicated that good institutional structure gives rise to innovations especially in the production of processed or sophisticated manufactured goods, and good contract institutions enhance the capacity of poor countries to move up to production of high-valued and more complex products. Rauch and Trindade (2002) found a positive impact of the presence of ethnic Chinese networks on bilateral trade and that this impact is larger for differentiated than for homogeneous products. It appears that exporting firms whose products rely heavily on trading relationship-specific intermediate outputs would prefer to write binding contracts with their agents in the destination countries concerning delivery, quality, payment and other contract terms. We therefore conjecture that:

H1b: The better the destination country's contracting institution, the more heterogeneous goods its firms will export.

The above theoretical expositions focus on heterogeneous or manufacturing goods. There is a paucity of theoretical and empirical international business research on homogeneous goods. Does source country's contract institution matter in exports of homogeneous goods? Does the production of homogeneous goods such as wheat or lamb require binding or "complete" contracts? The traditional cost theory has not taken relationship specificity into consideration: it simply proposes that weak contract institutions will always act as cost constraints. However, we learn from the agricultural production theory that the production of a relatively homogeneous good such as rubber or iron ore requires a multilevel production system (Freebairn, Davis and Edwards, 1982). For example, the production of grains requires the uses of several inputs involving signing of relationship-specific contracts with upstream suppliers and resource providers. In other words, productions of homogeneous commodities in source countries can also be relationship-specific. The relationship specificity has become more conspicuous as exporters these days are often big local and multinational firms that are predisposed to use long-term contracts to secure their input supplies. Hence, we predict in the case of exportable homogeneous goods that:

H2a: Contracting institution in a source country will significantly affect homogeneous commodity exports.

Does destination country's contracting institution matter in exports of homogeneous goods? The previous institutional cost theory stipulates that weak institutions constrain the flows of all types of goods across countries. Hence, according to the extant theory, weak contracting institution in destination countries will impede homogeneous goods as much as it impedes heterogeneous exports to destination countries. However, using the notion of relationship specificity, we predict in H2a that homogeneous goods require writing binding contracts in the source countries because exporters have to trade with their upstream suppliers of raw materials. Nevertheless, we should realize the fact that once standardized homogeneous products such as iron and steel or slaughtered beef and processed palm oil reach a destination country, product transformation is largely unnecessary (unlike manufactured goods), and exporters may not need to transact significantly with their upstream suppliers in the destination country as most of the transactions have been accomplished in the source countries. Furthermore, it is often unnecessary for the exporters to sell their homogeneous goods by way of contracting with their downstream traders in the destination

countries because standardized homogeneous goods can be sold competitively at commodity exchange or organized markets in the destination country (see for example Rauch, 1997). Without the needs for processing or production transformation in the destination country and with the provisions of organized exchange markets for rubber, palm oils, precious metal, etc, signing contracts with the downstream traders in the destination countries are often not necessary. Exporters may simply sell the finished standardized goods at renowned commodity exchange markets or to supermarkets that have established reputation. The above demonstrates that homogenous commodity exports, once they reach an overseas destination, will not be relationship-specific or contract-intensive. Hence, we predict that:

H2b: Contracting institutions in a destination country will not significantly affect homogeneous commodity exports.

The above hypotheses outline the relative importance of source and destination countries. It is also of strategic interest to examine the relative importance of heterogeneous and homogeneous goods. Which type of goods (heterogeneous goods or homogeneous goods) will be more adversely affected by weak contracting institutions in a source country? Our extended institutional theory posits that heterogeneous goods are much more relationship specific or contract intensive than homogeneous goods because a more complex supply chain management or more elaborate product transformation involving upstream and downstream coordination are often required in the case of heterogeneous goods productions and exports. Hence, we predict that:

H3a*: Weak contracting institution in a source country will adversely affect heterogeneous exports more than it affects homogeneous exports.*

Now, which type of goods (heterogeneous goods or homogeneous goods) will be more adversely affected by weak contracting institutions in a destination country? Previously, we mention that once a homogeneous commodity reaches a destination country, further processing or product transformation involving downstream trade partners is often unnecessary because the homogeneous commodity such as rubber and tin can be sold on various organized exchange markets. However, this is the case with a heterogeneous good, for which further processing and product transformation are required, Hence, relationship-specific contracting with downstream trading partners continues for a heterogeneous good in a destination country. We therefore hypothesize that:

H3b: *Weak contracting institution in a destination country will adversely affect heterogeneous exports more than it affects homogeneous exports.*

Empirical Strategy

In this paper, since our aim is to examine how quality of contracting institutions in source and destination countries influence exports of homogeneous and heterogeneous goods and to derive production and exporting strategies, the use of comprehensive cross-country bilateral disaggregate export data is especially relevant (see Beugelsdijk et al, 2010 and Ault and Spicer, 2014, among others, which used comprehensive country-level data to derive firm level decisions).[2] Using a large sample of cross-country bilateral disaggregate export data, we are able to assess each country's differentiated exports to a large number of different destinations worldwide A merit of using country level data is that cross-border exports are actually mirrored by firms' exporting activities and yet information on bilateral exports is available across a large combination of countries whereas firm-level data is usually available for exports from one or two countries (often the US or Japan) to merely a few destination countries. Since firms actively engage in exports, cross-country data can be used to show the revealed preferences or *ex post* export decisions of business firms across so many countries. The use of country-level data provides a very rich set of information on actual, collective, and strategic firm choices. We combine data from several sources with details of each data source for each variable discussed in the variable section below

Dependent Variables

Our dependent variables are bilateral exports from a source to a destination country. There are altogether more than 6000 country pairs in our sample. Given the fact that our institution variable does not change significantly over time for most countries, the use of cross-sectional data in our research setting is also appropriate for two reasons. First, it is well known that in the presence of time-invariant or slow moving variables, a panel data setting using fixed effect model captures only within variance of the estimation but does not allow the estimation of time-invariant variables (Wooldridge 2002). Second, to alleviate endogeneity and to establish causality, which is also a contribution of our paper, we select our instrumental variables from well-established colonial historical variables that are cross-sectional. Our data

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[2] Ault and Spicer (2014) used cross-country data to analyze the role of national institutions in shaping the ability of commercial enterprises to reach the global poor, but did not use such data to assess exports.

representing the average over the years 1998-2002 are obtained from the United Nation's Commodity Statistics Database. The choice of year coverage in our data is dictated by the availability of our institutional data, as discussed in the next sub-session. All our dependent variables (in US$ million) are expressed in logarithmic forms.

Independent Variables

We operationalize the strengths of contracting institutions using two different empirical measures espoused by Djankov *et al* (2003). The dataset on contracting institution was collected with the help of Lex Mundi member law firms with careful designed questionnaire and represents the most consistent measure of contracting institutional quality across 103 countries. The first proxy is an index of *check legal formalism*, measuring the number of formal legal procedures necessary to resolve a simple case of collecting an unpaid check (Djankov, *et al* 2003; Acemoglu and Johnson, 2005). This proxy is extremely relevant to our paper because payment delay or default appears to be a problem in international trade (see also Antras and Foley, 2014). The number of procedures measures *inter alia* the costs involved in contract enforcement. It is expressed as an index ranging from 1 (lowest formalism) to 7 (highest formalism), with higher index number indicating that it is more costly in enforcing a simple contract. The second proxy is an index of *tenant legal formalism*, measuring the difficulty and hence the costs of evicting a nonpaying tenant. It is also expressed as an index with higher index number indicating that it is more costly to evict a nonpaying tenant. Djankov *et al* (2003) and Acemoglu and Johnson (2005) demonstrated that the above proxies provide good empirical measures of the quality of contracting institutions.

In addition to *check legal formalism* and *tenant legal formalism*, we use a broader or more general definition of a contracting institution such as reflected by the *rule of law* index developed by World Bank as an additional proxy for robustness test. This measure is likely to canvass judicial enforcement of virtually all types of business contracts. A strong rule of law means that everyone, regardless of his/her position, is under the law, and every business contract and the contract holder, is subject to the law.

Instrumental Variables

A novelty of this paper is our attempt at establishing causality as well as controlling for endogeneity.[3] Our empirical strategy is to make use of a well-established instrumental variable (IV) and apply an IV estimator (2SLS) to establish the causal effect. Specifically, the instrumental variable serves as a unique exogenous source of variation in contracting institutions, effectively isolating the part of variation of institutions due to exogenous instruments from other part of variation of institutions due to endogenous factors. We refer to the literature to guide our choice of the instrumental variables. The colonial history has been identified, as in Djankov *et al* (2002, 2003), Acemoglu and Johnson (2005), and Acemoglu, Johnson, and Robinson (2001, 2002), to be an important exogenous source of variations affecting the development of contracting institutions. Specifically, Djankov *et al* (2002, 2003) and La Porta *et al* (2008) showed that the legal system imposed by colonial power has a strong effect on our measures of contracting institutions. We thus use the *legal origin* of a country to instrument our contracting institutional proxies. It is a dummy variable that denotes British, French, Socialist and German legal origins. Our instrumental variable data were obtained from La Porta *et al* (2008).

Control Variables

First, we control for the source and destination country sizes (Source *and Destination Country Real GDP*) that may affect the level of bilateral exports. A larger destination country may imply a bigger market while a larger source country may imply more supply-side potential for firms to move abroad. Real GDP, in US$ trillion at 2000 constant price is expressed in logarithmic form. Second, we take into account bilateral geographical distance (*Distance*) between the two most populous cities in the source and destination countries. It is expressed in logarithmic form. This variable measures the degree of liability of foreignness and hence the transaction costs involved in doing business across borders. Third, we introduce several dummy variables that previous literature have identified to be relevant to exports such as whether the pair countries are geographical contiguous (*Contiguous*), share common official language (*Common Language*), have or had colonial link (*Colony*). These three control variables are dummies, which equal to 1 if source and destination countries are contiguous, or share the same language, or have/had the same colonial heritage, 0 otherwise. Fourth, we take destination country's openness (*Openness*) into account. This is measured by the ratio of import and export sums to GDP at 2000 constant price. Fifth, multinational firms may be attracted to a destination country with a stable macroeconomic environment, which is measured by average inflation rate in the past two decades or so (*Inflation*). It is the logarithm

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[3] It is important to tackle endogeneity problem in international business research (Reeb, Sakakibara and Mahmood, 2012).

of average annual consumer price index (CPI) from 1970 to 1998. Lastly, we control for destination country's government consumption (*Government Consumption*). It is the average ratio of government consumption expenditure to GDP from 1970 to 1998. The data sources of the control variables are obtained from Blonigen and Piger (2014).

Empirical Results

Table 1 presents the descriptive statistics (means and standard deviations) and Pearson correlations for all the variables used in our empirical analysis. In view of the potential endogeneity and hence our use of the instrumental variable, we report in Table 2 the correlation results from stage one of our 2SLS regressions. We aim to verify the validity of the instruments (legal origin). It is well known that a valid instrument should be correlated with the endogenous regressor but orthogonal to other omitted characteristics. Our results in Table 2 show that the British, French, Socialist and German legal origins are significantly correlated with the two contracting institutional measures (*check legal formalism* and *tenant legal formalism*) at the 1 percent level. On the other hand, it is unlikely that our instrumental variable, a nation's legal origin, has direct effects on its current exports. Thus the validity of these instruments is established.

****INSERT TABLES 1 & 2 HERE****

Our main results, after establishing causality and controlling for endogeneity and for factors other than our key contracting institutional variables, are reported in Tables 3-4. For brevity, we do not report results from ordinal least square (OLS) as simple OLS does not control for endogeneity.

The effects of source and destination countries' contracting institutions on disaggregate exports differentiated by SITC one-digit codes are reported in Table 3. The relatively homogeneous goods are represented by SITC codes 0-5 and the relatively heterogeneous goods are represented by SITC codes 6-9, following World Bank's commodity classifications. We first report results for the relatively heterogeneous goods (corresponding to H1). We find in Table 3 that the source country's contracting institutions (*check* and *tenant legal formalisms*) significantly influence the exports of heterogeneous goods disaggregated under the SITC 6-9 categories. This supports H1a. A rationale is that heterogeneous goods are relationship-specific and contract-intensive involving substantial upstream trade coordination with input suppliers.

We also find in Table 3 that contracting institution in the destination country is important for exports of heterogeneous goods, hence supporting H1b. An explanation on this is that manufacturing goods are often component goods involving global production chains. Exporters have to sign contracts with downstream traders or co-producers in the destination countries. That is, manufactured goods are highly relationship-specific. Upstream suppliers/exporters are located in one country while their downstream traders are located in another country. Besides, the destination country that processes or assembles the components from the source country becomes the source country that exports its unfinished goods to another country for further processing. Global supply chain is extremely relationship-specific.

****INSERT TABLE 3 HERE****

We then report results for the relatively homogeneous commodities (corresponding to H2). Consistent with our theoretical proposition, the source country's contracting institutions are reported generally to be significant in influencing relatively homogeneous commodity exports. H2a is supported by our empirical results. An explanation is that in the home country's production of relatively homogeneous commodities such as rice, coffee and sunflower oil, firms are not exempted from contracting with their upstream inputs (such as seeds and fertilizers) suppliers as quality and payment contracts have to be enforced in the source country in order to be credible enough for exporters to make the investments. It is of interest to learn that while Nunn (2007) has pointed to the importance of source country's contracting institutions in the production of heterogeneous goods, our paper shows that source country's contracting institutions are also important in the production of homogeneous goods.

We find that the destination country's contracting institutions do not significantly affect homogeneous commodity exports under the SITC 0-5 categories. H2b is supported by our empirical result based on the theoretical predictions that international trade in homogeneous goods is not significantly relationship-specific or contract-intensive as standardized products may be sold in reputable commodity (such as grain, metal, rubber and palm oil) exchange markets without exporters having to collaborate intensively or sign contracts with various individual agents in the destination countries. Our empirical results dispute the extant institutional cost theory that destination country's contracting institution presents itself as cost constraint on exporters. Our extended institutional theory on differentiated exports provides an alternative explanation.

Our results in Table 3 show that source country's contracting institutions appear to be important determinants of both homogeneous as well as heterogeneous goods exports. However, we find that heterogeneous goods have been affected more than homogeneous goods as viewed in terms of their coefficient sizes.[4] These results support H3a. A reason is that though both types of goods involve upstream trade arrangements with the relevant suppliers, manufacturing production is more relationship-specific than agricultural production as manufacturing often entails a complex wed of supply chain management. The theory on relationship specificity helps to delineate their differences. In the case of comparing heterogeneous good with a homogeneous good in a destination country, we find that heterogeneous but not homogeneous goods were significantly affected by the institutional constraints, hence supporting H3b. This is largely because while processing and product transformation may continue with manufactured goods, homogeneous goods are sold on organized commodity exchanges markets that significantly exempt their needs for contractual arrangements with the downstream traders.

Table 3 show that the strengths of contracting institutions in the destination countries do not favorably affect source country's exports of heterogeneous goods in the SITC 6 category. An explanation is that manufactured goods in the SITC 6 grouping are classified chiefly by material, which include leather, rubber manufactures, word and cork manufactures, paper, textile yarn, iron and steel and non-ferrous metals. These products do not seem to undergo substantial transformation and are therefore less relationship-specific as compared to other manufactured goods in the SITC 7-9 categories such as machinery, transport equipment, vehicles, furniture, handbags, shoes, scientific equipment, watches, etc.

The above analysis is based on SITC classifications of relatively homogeneous and heterogeneous goods. In order to provide additional tests on our hypotheses, we use another commodity classification method, following Rauch (1999), which categorized composite goods into relatively homogeneous and heterogeneous goods. In Rauch (1999), homogeneous goods were further divided into two categories: (a) those whose prices are quoted on organized exchanges (relatively more homogeneous) and (b) those whose references prices are quoted only in trade publications (relatively less homogeneous). Empirical results on these three major categories of exports are presented in Table 4.

We first report results for the relatively heterogeneous goods (corresponding to H1). We find that the source country's formal contracting institutions (*check* and *tenant legal*

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[4] Note that our comparisons of the size coefficients are appropriate because the institutional independent variables are the same while the dependent variables vary.

formalisms) significantly influence the exports of heterogeneous goods, pointing again to the validity of H1a. We also find that the destination country's contracting institutions significantly affect heterogeneous goods exports, hence confirming H1b. We then report results for the relatively homogeneous commodities. We find that the source country's contracting institutions are significant in influencing the relatively homogeneous exports using our two legal formalism measures, corroborating H2a. We find once again that the destination country's contracting institutions do not significantly affect homogeneous exports under the organized exchanges and trade publications groupings, confirming H2b. Our results in Table 4 show that source country's contracting institutions appear to be important for both homogeneous as well as heterogeneous goods exports. However, we find that heterogeneous goods exports are affected more than homogeneous goods exports within a source country in terms of the differences in their coefficient sizes, hence supporting H3a. In a destination country, contracting institutional constraints significantly adversely affect heterogeneous but not homogeneous goods, supporting H3b, pointing to the requirements for substantial contractual requirements in global manufacturing production.

Table 4 shows that the source country's contracting institutions affect all the three groups of exports at the 1 percent level but the significant effects of the destination country contracting institutions depend on the types of goods exported. In the case of relatively heterogeneous goods, the destination country's contracting institution coefficients are observed to be significant but in the case of homogeneous goods (both under organized exchanges or trade publications), the coefficients are not significant for our contracting institutional measures.

****INSERT TABLE 4 HERE****

Robustness Check

For robustness tests, we construct another contracting institutional measure, using the "rule of law" index from Kaufmann, Kraay, and Mastruzzi's (2009) Worldwide Governance Indicators database. A higher score indicates a stronger state with a better quality of contracting institution. There are six individual indexes in Kaufmann's data, which are observed to correlate with one another. We choose the rule of law index as it closely relates to our contracting institutional measure. Our results in Table 5 are found to affirm those presented earlier. First, contracting institutions in both source and destination countries significantly affect heterogeneous exports (H1 is supported). Second, contracting institutions

in source countries significantly affect homogeneous commodity exports, consistent with our prior results computed using our two legal formalism measures adopted by Djankov (2003) and Acemoglu and Johnson (2005), confirming H2a. However, using the rule of law measure, we find that the contracting institutions in destination countries also affect some homogeneous commodity export types (i.e. SITC 2, 4 and 5). A rationale for this is that the rule of law measure is a broader institutional measure that captures not only the contracting institutional aspect of judicial enforcement but possibly other institutional elements such as property rights enforcements.

****INSERT TABLES 5a and 5b HERE****

Conclusions and Practical Implications

This paper shows that in order to assess the feasibility of business firms exporting from their home countries to other destination countries, it is important to assess the strengths of the contracting institutions in the source and the destination countries as well as the types of products to be exported. We find that producers/exporters of relatively heterogeneous products (such as manufactured goods) should care not just about their own country's contracting institutional strength but also that of the countries they choose to export to. However, producers of relatively homogeneous products (such as agricultural commodities) may only care about the strength of the contracting institutions in their home country. These results provide extensions to the previous institutional cost theory, which implicitly posits that contract enforcement weakness in any country impedes the flows of all types of goods. Using the relationship specificity theory with supporting evidence from the agricultural production literature, we find that homogeneous export production in the source country is relationship-specific because exporters have to transact with their upstream suppliers in the source country. This explains why productions of homogeneous goods are relation-specific and contract-intensive and therefore require strong contracting institutions in the source countries to enforce their production and sale contracts. However, once the standardized goods reach the overseas destinations, we conjecture that upstream transactions are no longer necessary. Furthermore, downstream transactions with ad-hoc buyers may not be needed because exporters can rely on large-scale, competitive, and well-organized commodity exchange markets that are trustworthy. Hence, contrary to our previous understanding of the institutional cost theory, weak contracting institutions in destination countries do not significantly impede the exports of homogeneous goods.

Our paper presents some practical ways for the formulations of export strategies. First, firms should be aware that their competitive advantages in virtually all types of exports depend first and foremost on the strengths of the contracting institutions in their source countries. Firms may choose not to export at all if the home country's contracting institutions are weak, otherwise their competitive positions may be eroded. Firms may also choose to produce exportable goods in other source country affiliate locations that have strong contracting institutions. Second, firms should concurrently take both the local and the destination country's contracting institutions into consideration in their exports of relatively heterogeneous manufacturing goods. Strategically, they may avoid exporting to countries that have poor contracting institutions notwithstanding the strong contracting institutions in their home countries. In the same vein, if their home country's contracting institutions are good but the destination country's institutions are poor, then they are not encouraged to export manufactured goods that are relationship-specific. In the case of global production chains in which multiple countries are involved, it is appropriate for exporters to consider not only their home country's institutions but also all the destination countries within the global supply chain as their competitive positions are adversely affected by weak contracting institutions in those trading countries. Third, firms that produce relatively homogeneous commodities may choose not to export or export less if their home countries have weak contracting institutions. However, these firms should not always avoid exporting to countries with weak contracting institutions. Our paper throws light on how business managers can make strategic location as well as production choices that will enhance their export performances.

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Table 1 Descriptive Statistics and Correlations

	Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
(1) Log Exports	13.10	4.34	1.00																			
(2) Log Exports of Organized Exchange	13.01	3.64	0.78	1.00																		
(3) Log Exports of Referenced Goods	13.04	3.91	0.77	0.64	1.00																	
(4) Log Exports of Heterogeneous Goods	13.43	4.22	0.83	0.69	0.74	1.00																
(5) D. Check Legal Formalism	3.73	1.10	-0.09	-0.10	-0.02	-0.06	1.00															
(6) S. Check Legal Formalism	3.67	1.06	-0.13	-0.09	-0.13	-0.21	-0.01	1.00														
(7) D. Tenant Legal Formalism	3.76	0.95	-0.02	-0.05	0.01	-0.02	0.89	-0.01	1.00													
(8) S. Tenant Legal Formalism	3.71	0.93	-0.04	-0.05	-0.06	-0.10	-0.01	0.87	-0.01	1.00												
(9) D. Rule of Law	0.17	0.99	0.20	0.20	0.13	0.16	-0.48	0.00	-0.36	0.00	1.00											
(10) S. Rule of Law	-0.01	1.00	0.29	0.18	0.19	0.36	0.00	-0.44	0.00	-0.31	-0.00	1.00										
(11) Log D. Real GDP	-3.46	2.20	0.57	0.41	0.47	0.60	0.00	-0.11	-0.00	0.04	-0.00	0.23	1.00									
(12) Log S. Real GDP	-2.77	2.06	0.39	0.36	0.30	0.27	-0.11	0.00	0.02	-0.00	0.27	0.00	-0.01	1.00								
(13) Contiguous	0.02	0.12	0.16	0.19	0.19	0.16	0.02	0.04	0.01	0.03	-0.04	-0.03	0.05	0.04	1.00							
(14) Log Distance	8.77	0.78	-0.27	-0.21	-0.26	-0.24	0.01	-0.03	0.01	-0.01	-0.02	-0.03	-0.10	0.01	-0.34	1.00						
(15) Common Official Language	0.15	0.36	-0.01	0.03	0.01	-0.01	-0.14	-0.08	-0.17	-0.08	-0.01	0.01	-0.11	-0.11	0.10	-0.08	1.00					
(16) Colony	0.01	0.11	0.14	0.16	0.14	0.14	-0.05	-0.02	-0.06	-0.03	0.08	0.05	0.06	0.11	0.10	-0.06	0.15	1.00				
(17) Share of Resource Exports	20.65	26.37	-0.03	-0.04	-0.02	-0.03	0.12	-0.00	0.05	-0.00	-0.37	0.00	-0.00	0.09	0.03	-0.02	-0.02	-0.03	1.00			
(18) Openness	84.40	49.79	-0.03	-0.04	-0.03	-0.02	-0.28	0.00	-0.11	0.00	0.29	-0.00	0.00	-0.25	-0.04	0.02	0.05	-0.05	-0.21	1.00		
(19) Log Inflation	2.89	1.52	-0.08	-0.05	0.01	-0.04	0.28	-0.00	0.27	-0.00	-0.40	0.00	-0.00	0.06	0.03	-0.01	-0.14	-0.03	0.18	-0.21	1.00	
(20) Government Consumption	0.16	0.06	-0.15	-0.12	-0.12	-0.10	0.08	-0.00	-0.04	0.00	-0.33	-0.00	0.00	-0.33	0.03	-0.05	0.06	-0.03	0.16	0.16	-0.02	1.00

Note: "D" and "S" represent Destination and Source Country, respectively.

Table 2 First Stage regression Results

Dependent Variable	Check Legal Formalism	Tenant Legal Formalism	Rule of Law
British Legal Origin	-0.551***	-0.479***	-1.579***
	[-22.86]	[-22.99]	[-59.86]
French Legal Origin	1.330***	1.137***	-2.147***
	[57.05]	[55.98]	[-83.58]
Socialist Legal Origin	0.702***	0.510***	-2.601***
	[22.23]	[18.74]	[-80.38]
German Legal Origin	0.546***	0.439***	-1.230***
	[20.76]	[19.70]	[-43.52]
Constant	3.150***	3.324***	1.954***
	[143.13]	[175.39]	[79.74]
Observations	12360	18881	25606
F_test	5851.34	5221.47	2749.24
p-value	0.000	0.000	0.000
Adjusted-R2	0.5325	0.5252	0.3004

Table 3 Contracting Institutions and Differentiated Exports using SITC classifications

	SITC 0	SITC 1	SITC 2	SITC 3	SITC 4	SITC 5	SITC 6	SITC 7	SITC 8	SITC 9
	Panel A: Check Legal Formalism									
D. Contract Quality	0.015	-0.111*	-0.022	-0.046	0.121	0.032	-0.020	-0.122***	-0.171***	-0.151***
	[0.31]	[-1.83]	[-0.47]	[-0.56]	[1.51]	[0.72]	[-0.51]	[-2.68]	[-4.00]	[-2.57]
S. Contract Quality	-0.220***	-0.400***	-0.088*	-0.008	0.131*	-0.254***	-0.332***	-0.655***	-0.610***	-0.729***
	[-4.65]	[-6.58]	[-1.93]	[-0.10]	[1.67]	[-5.27]	[-7.71]	[-13.27]	[-13.01]	[-11.36]
Log S. Real GDP	1.001***	0.905***	1.065***	1.161***	0.917***	1.469***	1.535***	1.587***	1.492***	1.256***
	[48.99]	[35.27]	[52.54]	[31.59]	[24.56]	[71.11]	[84.59]	[77.63]	[77.80]	[49.15]
Log D. Real GDP	0.797***	0.539***	1.127***	0.787***	0.638***	0.814***	0.878***	0.783***	0.806***	0.665***
	[37.61]	[19.10]	[53.79]	[22.22]	[17.25]	[39.42]	[48.34]	[37.08]	[40.87]	[24.28]
Contiguous	1.154***	1.199***	1.308***	1.269***	1.456***	0.536**	0.701***	0.406*	0.590***	-0.063
	[5.28]	[4.78]	[6.36]	[4.16]	[5.20]	[2.54]	[3.55]	[1.82]	[2.78]	[-0.25]
Log Distance	-1.155***	-1.106***	-1.238***	-1.660***	-0.949***	-1.647***	-1.594***	-1.575***	-1.590***	-1.118***
	[-27.59]	[-21.34]	[-30.92]	[-24.79]	[-14.73]	[-40.09]	[-42.59]	[-36.79]	[-39.50]	[-21.74]
Common Official Language	0.781***	0.883***	0.560***	0.938***	0.617***	0.494***	0.323***	0.381***	0.589***	0.481***
	[8.37]	[7.46]	[6.29]	[5.98]	[4.13]	[5.41]	[3.29]	[4.06]	[6.68]	[4.14]
Colony	1.423***	1.729***	0.921***	0.645**	0.426	0.964***	1.055***	1.258***	1.508***	1.469***
	[6.61]	[7.09]	[4.55]	[2.09]	[1.56]	[4.68]	[5.39]	[5.68]	[7.22]	[5.95]
D. Resource Exports	-0.003**	-0.004*	-0.010***	-0.009***	0.004*	-0.003**	-0.005***	-0.003**	-0.008***	-0.003*
	[-2.24]	[-1.84]	[-7.15]	[-3.41]	[1.77]	[-2.03]	[-3.67]	[-2.01]	[-6.11]	[-1.74]
D. Openness	0.007***	0.002*	0.004***	0.005***	0.004***	0.004***	0.005***	0.006***	0.002***	0.002***
	[3.62]	[1.89]	[5.72]	[4.19]	[2.83]	[5.81]	[7.78]	[7.49]	[2.92]	[2.71]
Log D. Inflation	-0.201***	-0.170***	-0.157***	-0.010	-0.063	0.099***	-0.083***	0.044	-0.066**	-0.001
	[-6.42]	[-4.14]	[-5.22]	[-0.19]	[-1.17]	[3.28]	[-3.06]	[1.41]	[-2.27]	[-0.01]
D. Government Consumption	-1.748***	-2.574***	-0.835	-1.581	0.196	-1.298**	-1.458***	-0.741	-2.829***	-0.446
	[-2.92]	[-3.31]	[-1.46]	[-1.59]	[0.20]	[-2.22]	[-2.77]	[-1.23]	[-4.97]	[-0.59]
Constant	28.170***	25.780***	28.075***	29.580***	20.240***	32.229***	33.694***	34.473***	34.554***	27.454***
	[61.02]	[44.16]	[63.63]	[40.24]	[28.00]	[70.90]	[81.99]	[72.58]	[77.33]	[47.57]
Observations	5925	4363	5622	3801	2980	5587	6379	6137	6215	4557
Adjusted-R2	0.4639	0.3547	0.5664	0.3630	0.2703	0.5935	0.6490	0.6125	0.6266	0.4714
	Panel B: Tenant Legal Formalism									
D. Contract Quality	0.087*	-0.083	0.002	-0.030	0.062	0.027	-0.011	-0.110**	-0.120**	-0.147**
	[1.67]	[-1.22]	[0.04]	[-0.33]	[0.70]	[0.52]	[-0.24]	[-2.05]	[-2.44]	[-2.12]
S. Contract Quality	-0.145***	-0.374***	-0.128**	-0.156	0.264***	-0.282**	-0.369***	-0.718***	-0.652***	-1.030***
	[-2.63]	[-5.19]	[-2.39]	[-1.59]	[2.88]	[-4.94]	[-7.31]	[-11.85]	[-11.65]	[-11.95]
Log S. Real GDP	1.008***	0.934***	1.122***	1.177***	0.935***	1.475***	1.524***	1.623***	1.523***	1.379***
	[50.16]	[36.01]	[56.26]	[32.53]	[25.76]	[72.46]	[85.16]	[77.19]	[78.80]	[51.81]
Log D. Real GDP	0.783***	0.564***	1.138***	0.781***	0.653***	0.815***	0.884***	0.800***	0.828***	0.673***
	[37.60]	[20.27]	[55.24]	[22.65]	[18.24]	[39.94]	[48.87]	[36.71]	[41.49]	[23.97]
Contiguous	1.076***	1.089***	1.242***	1.429***	1.491***	0.430*	0.597***	0.317	0.361	0.013
	[4.72]	[4.10]	[5.81]	[4.47]	[5.13]	[1.94]	[2.88]	[1.30]	[1.60]	[0.05]

Log Distance	-1.131***	-1.087***	-1.255***	-1.651***	-0.968***	-1.635***	-1.578***	-1.599***	-1.641***	-1.137***
	[-26.92]	[-20.62]	[-31.21]	[-24.50]	[-15.08]	[-39.45]	[-41.81]	[-35.72]	[-39.66]	[-21.02]
Common Official Language	1.009***	1.007***	0.675***	0.877***	0.802***	0.615***	0.393***	0.373***	0.754***	0.417***
	[10.33]	[8.10]	[7.21]	[5.36]	[5.21]	[6.43]	[4.52]	[3.65]	[7.95]	[3.29]
Colony	1.157***	1.527***	0.658***	0.512	0.497*	0.754***	0.839***	0.913***	1.135***	1.190***
	[5.34]	[6.07]	[3.24]	[1.62]	[1.79]	[3.60]	[4.25]	[3.94]	[5.27]	[4.56]
D. Resource Exports	-0.001	-0.002	-0.008***	-0.003	0.005*	-0.000	-0.001	0.000	-0.004***	-0.001
	[-0.80]	[-0.87]	[-4.84]	[-1.17]	[1.71]	[-0.13]	[-0.78]	[0.18]	[-2.59]	[-0.40]
D. Openness	0.001*	0.002**	0.004***	0.005***	0.003**	0.003***	0.004***	0.006***	0.002***	0.003***
	[1.67]	[2.18]	[5.45]	[4.35]	[2.30]	[4.95]	[6.68]	[7.87]	[3.17]	[3.00]
Log D. Inflation	-0.332***	-0.227***	-0.201***	-0.057	-0.126**	0.053	-0.160***	-0.008	-0.157***	-0.054
	[-9.32]	[-4.79]	[-5.81]	[-0.97]	[-2.10]	[1.50]	[-5.12]	[-0.22]	[-4.52]	[-1.15]
D. Government Consumption	-1.600***	-2.879***	-0.752	-1.524	0.457	-1.189**	-1.610***	-0.491	-2.888***	-0.803
	[-2.71]	[-3.71]	[-1.33]	[-1.53]	[0.47]	[-2.05]	[-3.08]	[-0.79]	[-5.02]	[-1.03]
Constant	27.890***	25.812***	28.521***	30.069***	20.277***	32.555***	34.052***	35.270***	35.474***	29.256***
	[58.26]	[52.05]	[62.13]	[38.86]	[27.32]	[68.59]	[79.22]	[68.51]	[74.52]	[45.47]
Observations	5376	4092	5060	3562	2870	5145	5733	5550	5617	4231
Adjusted-R2	0.4856	0.3606	0.5932	0.3792	0.2967	0.6082	0.6634	0.6031	0.6312	0.4649

Note: "D" and "S" represent Destination and Source Country, respectively.

Table 4 Contracting Institutions and Distinct Types of Exports

	Check Legal Formalism			Tenant Legal Formalism		
	Organized Exchange	Referenced Goods	Heterogenous Goods	Organized Exchange	Referenced Goods	Heterogenous Goods
D. Contract Quality	-0.053	0.011	-0.135***	-0.012	0.032	-0.120***
	[-1.28]	[0.25]	[-3.61]	[-0.25]	[0.67]	[-2.74]
S. Contract Quality	-0.146***	-0.365***	-0.555***	-0.111**	-0.440***	-0.597***
	[-3.46]	[8.08]	[-13.60]	[-2.24]	[-8.22]	[-12.22]
Log S. Real GDP	1.071***	1.401***	1.591***	1.083***	1.396***	1.596***
	[58.53]	[73.24]	[95.49]	[59.84]	[73.46]	[94.63]
Log D. Real GDP	0.962***	0.864***	0.869***	0.959***	0.843***	0.881***
	[51.17]	[44.40]	[50.45]	[51.42]	[43.68]	[50.16]
Contiguous	1.185***	0.745***	0.491**	1.056***	0.607***	0.282
	[5.83]	[3.62]	[2.50]	[4.97]	[2.81]	[1.35]
Log Distance	-1.227***	-1.690***	-1.593***	-1.229***	-1.644***	-1.609***
	[-32.08]	[-42.73]	[-43.76]	[-31.91]	[-41.19]	[-42.97]
Common Official Language	0.752***	0.650***	0.476***	0.916***	0.722***	0.508***
	[8.93]	[7.46]	[6.04]	[10.35]	[7.89]	[5.99]
Colony	1.244***	1.022***	1.153***	0.956***	0.787***	0.861***
	[6.19]	[5.02]	[5.91]	[4.73]	[3.82]	[4.31]
D. Resource Exports	-0.006***	-0.004***	-0.007***	-0.003*	-0.002	-0.002
	[-4.39]	[-3.72]	[-5.52]	[-1.88]	[-1.24]	[-1.49]
D. Openness	0.003***	0.004***	0.004***	0.002***	0.004***	0.004***
	[5.20]	[6.65]	[6.93]	[3.95]	[5.71]	[7.19]
Log D. Inflation	-0.205***	0.013	-0.087***	-0.311***	-0.051	-0.161***
	[-7.42]	[0.45]	[-3.39]	[-9.68]	[-1.54]	[-5.25]
D. Government Consumption	-0.360	-1.378**	-1.187**	-0.298	-1.373**	-1.251**
	[-0.67]	[-2.47]	[-2.36]	[-0.56]	[-2.48]	[-2.45]
Constant	29.587***	33.938***	36.306***	29.695***	34.044***	36.944***
	[70.95]	[77.67]	[91.21]	[68.11]	[74.49]	[87.04]
Observations	6445	6076	6952	5734	5501	6144
Adjusted-R2	0.5526	0.6090	0.6851	0.5750	0.6175	0.6878

Note: "D" and "S" denote Destination and Source Country, respectively.

Table 6 Contracting Institutions and Differentiated Exports: Rule of Law

Dependent Variable: Differentiated Exports	SITC_0	SITC_1	SITC_2	SITC_3	SITC_4	SITC_5	SITC_6	SITC_7	SITC_8	SITC_9
D. Contract Quality	0.017	0.065	0.215***	-0.180	-0.437***	-0.325***	-0.072	0.225***	0.442***	0.166*
	[0.24]	[0.69]	[3.12]	[-1.40]	[-3.29]	[-4.70]	[-1.21]	[3.74]	[7.29]	[1.91]
S. Contract Quality	0.387***	0.312***	0.206***	-0.541***	-0.116	0.698***	0.894***	1.707***	1.232***	1.347***
	[5.83]	[3.61]	[3.26]	[-5.28]	[-1.12]	[11.73]	[16.68]	[31.95]	[22.23]	[18.08]
Log S. Real GDP	0.977***	0.879***	0.979***	1.117***	0.883***	1.374***	1.438***	1.403***	1.339***	1.024***
	[51.50]	[36.92]	[49.34]	[32.88]	[26.80]	[79.75]	[91.04]	[90.44]	[85.71]	[43.98]
Log D. Real GDP	0.748***	0.504***	1.032***	0.735***	0.606***	0.847***	0.874***	0.797***	0.785***	0.695***
	[39.39]	[20.04]	[55.22]	[23.02]	[17.67]	[46.37]	[54.36]	[48.53]	[47.54]	[29.93]
Contiguous	1.356***	0.806***	1.419***	0.854***	1.255***	0.554***	0.968***	1.064***	1.049***	0.271
	[7.03]	[3.61]	[7.58]	[3.08]	[4.83]	[3.05]	[5.59]	[6.23]	[5.93]	[1.22]
Log Distance	-1.028***	-1.096***	-1.156***	-1.593***	-0.937***	-1.579***	-1.516***	-1.365***	-1.361***	-0.920***
	[-26.67]	[-22.87]	[-30.25]	[-24.82]	[-15.19]	[-42.82]	[-44.66]	[-40.50]	[-39.63]	[-19.86]
Common Official Language	1.083***	1.095***	0.782***	0.623***	0.637***	0.925***	0.784***	1.006***	1.176***	0.888***
	[13.11]	[10.18]	[9.62]	[4.29]	[4.55]	[11.63]	[10.94]	[14.02]	[16.15]	[8.94]
Colony	1.362***	1.435***	0.863***	0.930***	0.544***	0.744***	0.687	0.689***	0.928***	1.120***
	[6.93]	[6.43]	[4.56]	[3.23]	[2.13]	[4.05]	[3.89]	[3.91]	[5.15]	[5.10]
D. Resource Exports	-0.005**	-0.005**	-0.011***	-0.014***	-0.006***	-0.007***	-0.009***	-0.002	-0.005***	-0.002
	[-3.63]	[-2.51]	[-7.85]	[-5.96]	[-2.63]	[-5.60]	[-8.15]	[-1.58]	[-4.35]	[-1.46]
D. Openness	0.003***	0.002***	0.004***	0.005***	0.004***	0.005***	0.005***	0.005***	0.002***	0.003***
	[4.19]	[3.05]	[6.24]	[4.51]	[3.95]	[7.97]	[9.25]	[8.94]	[3.52]	[3.65]
Log D. Inflation	-0.177***	-0.129***	-0.076**	-0.078	-0.100	0.023	-0.107***	0.027	-0.018	0.013
	[-5.18]	[-2.81]	[-2.23]	[-1.32]	[-1.62]	[0.73]	[-3.79]	[0.94]	[-0.62]	[0.31]
D. Government Consumption	-1.051*	-3.141***	-0.790	-3.820	-1.625*	-2.446***	-1.345***	0.355	-0.899*	0.458
	[-1.93]	[-4.39]	[-1.47]	[-4.11]	[-1.77]	[-4.77]	[-2.90]	[0.77]	[-1.89]	[0.70]
Constant	25.681***	23.386***	26.120***	29.764***	21.629***	30.800***	31.191***	28.499***	28.089***	21.348***
	[63.18]	[45.28]	[64.43]	[42.94]	[32.01]	[79.11]	[88.09]	[81.09]	[78.57]	[43.35]
Observations	7939	5495	7581	4963	3680	7455	8772	8407	8625	6033
Adjusted-R2	0.4539	0.3470	0.5207	0.3155	0.2492	0.6047	0.6451	0.6886	0.6467	0.4892

Note: "D" and "S" represent Destination and Source Country, respectively.

Table 5b Contracting Institutions and Distinct Types of Exports: Rule of Law

	Organized Exchange	Referenced Goods	Heterogeneous Goods
D. Contract Quality	0.107*	-0.278***	0.174***
	[1.70]	[-4.10]	[3.31]
S. Contract Quality	0.411***	0.481***	1.333***
	[7.00]	[7.92]	[27.24]
Log S. Real GDP	1.028***	1.322***	1.448***
	[59.53]	[75.67]	[105.35]
Log D. Real GDP	0.901***	0.881***	0.869***
	[53.21]	[48.68]	[60.58]
Contiguous	1.400***	0.576***	0.912***
	[7.68]	[3.07]	[5.63]
Log Distance	-1.129***	-1.679***	-1.446***
	[-31.59]	[-44.60]	[-46.88]
Common Official Language	1.061***	0.876***	1.029***
	[14.14]	[10.92]	[16.19]
Colony	1.298***	0.954***	0.687***
	[6.93]	[4.92]	[4.11]
D. Resource Exports	-0.007***	-0.011***	-0.007***
	[-5.89]	[-8.39]	[-7.06]
D. Openness	0.003***	0.005***	0.004***
	[5.99]	[8.47]	[8.18]
Log D. Inflation	-0.173***	-0.034	-0.093***
	[-5.74]	[-1.07]	[-3.74]
D. Government Consumption	-0.358	-3.433***	-0.447
	[-0.73]	[-6.60]	[-1.09]
Constant	27.335***	32.765***	31.447***
	[73.02]	[83.01]	[98.69]
Observations	8977	8285	10081
Adjusted-R2	0.5272	0.5735	0.7129

Note: "D" and "S" represent Destination and Source Country, respectively.