

## Factors Shaping Exports of Cultural Goods from Pakistan

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In the era of economic globalization, cultural goods trade has assumed a vital role in overall bilateral trade. It has become an emerging and transformative force behind socio-cultural-economic development and an important source of inclusive growth. Once virtually unlocked, trade in cultural goods is now fast growing with world-wide market openings. Trade liberalisation in cultural goods thus needs to be treated as a priority policy issue in multilateral and regional trade negotiations. Despite large potential of exports in cultural goods, Pakistan has been unsuccessful in realizing it. This is mainly because of lack of due attention given to it by the policymakers. In this regard, this paper makes a beginning to investigate the determinants of cultural goods exports from Pakistan for the period 2003-2012 with its 157 trading partner countries. The Gravity model is used to identify factors that determine exports of cultural goods. Six major categories of cultural goods are used for the purpose of estimation. Results indicate that size of Pakistan and its trading partner countries' markets as well as distance among them are important determinants of exports in cultural goods. Specifically, cultural goods exports are strongly and positively influenced by the growth of the GDP in Pakistan, while the trading partner countries' GDP growth negatively influence cultural goods' exports. Distance, representing transaction costs and trade barriers, negatively affect exports of cultural goods; while colonial ties, common language, common border and land area of the trading partners positively influence the export of cultural goods. Exports of cultural goods to landlocked countries are lower than other trading partner countries.

**Keywords:** Gravity model, Cultural goods exports, Pakistan.

### 1. INTRODUCTION

Trade in cultural goods<sup>1</sup> has become an emerging and transformative force behind socio-cultural-economic development. It has turned out to be an important source of inclusive economic growth. At present, about 7% of the world GDP constitutes of creative and cultural goods. Nevertheless, only a handful of countries are the main players in global trade of cultural goods. Production and trade potential of cultural goods, however, had remained largely unexplored and unlocked. Now with market openings world-wide, cultural goods trade has been rising at a faster pace.<sup>2</sup> Therefore, liberalisation of cultural goods trade needs to be considered as an important contemporary policy issue in the multilateral trade negotiations.

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<sup>1</sup> Cultural goods represent disperse thoughts, signs and standard of living, while providing facts and amusement to form a group, and recognize and influence cultural behaviour. Unlike the conventional goods, they carry information about production location, people preferences, social attributes and cultural values (Cheptea, 2007). Cultural goods include antiques, musical instrument, jewelry, crafts, paintings, newspaper, visual arts, etc. (UNESCO, 2000 and 2005).

<sup>2</sup> For example, the world markets witnessed a surge in trade of cultural goods from US\$47.8 billion in 1980 to US\$213.7 billion in 1998 and to US\$424.4 billion in 2006 (UNESCO, 2013). A large proportion (almost 40%) of trade in cultural goods originates from China, USA and UK (Drew, 2007). Other major countries include Hong Kong, France, India and Germany.

Countries with common cultural and historical attributes and ties are often seen engaged in trade in cultural goods. If trade is built around comparative advantage, then cultural diversity between countries enhances trade at faster pace [Cyrus (2011)].

Countries utilize modern media technology for building their image and get acceptance and adaptation of their culture and cultural goods in the world. Factors like common language, history, religious beliefs, and colonial affiliation played an important role in creating world-wide demand for their cultural goods.

As trade in cultural goods is increasing, governments have started paying attention for its development and promotion. This interest has motivated many academicians to work specifically on this issue. For instance, Disdier, et al. (2010) examined the determinants of trade in cultural goods. Their study suggested that trade in cultural goods reveals some specific characteristics. That is, common language fosters exchange of cultural goods and past colonial relationships influence consumers' preferences for cultural heritage goods. The study also found that cultural goods are traded over smaller distance as compared with conventional goods.

Marvasti and Canterbury (2005) investigated the determinants of US motion pictures exports to 33 countries. The study revealed a positive impact of language, education and religion on exports of motion pictures. The study also found that trade barriers applied by importing countries are raised with the growth of US exports of motion pictures.

Lili (2011) found that China's trading partners' economic size, GDP per capita, land area and level of technological application have a positive impact on its exports of cultural goods. The study further found that China's FTAs have little impact on its exports of cultural goods. Pakistan has a strong and rich cultural heritage, which has roots to ancient times. Its culture has the influence of many foreign cultures dating back to the colonial eras; each of them brought several cultural influences. Thus, Pakistan has a pleasant blend of diverse cultures representing distinctive music, arts, antiques and sculptures. Despite the cultural richness, Pakistan has so far been unsuccessful in realizing the export potential of cultural goods unlike other countries. Nevertheless, lately trend appears to be changing as Pakistani electronic media and private industry has started showcasing its soft image and culture world-wide. Consequently, Pakistan's export of cultural goods that were \$277.75 million in 2003 has increased by more than six-folds to \$1,764.75 million in 2012 (For details see Appendix Table 1).

Nevertheless, trade has not received due attention in academic or policymaking circles in Pakistan because of lack of recognition and understanding of the available potential of cultural goods export. In this paper, therefore, we make a beginning by investigating the determinants of Pakistan's exports of cultural goods to its 157 trading partners. Our estimation is based on the Gravity model of international trade. The data used for estimation are drawn from UN-COM-Trade database using the six-digit level HS classification proposed by the UNESCO (2000).

Rest of the paper is divided into four sections. Section 2 presents the theoretical framework used in the paper. Variable construction and data used along with data sources are reported in section 3. Empirical results are discussed in section 4. Finally, section 5 concludes the paper and draws policy implications from the empirical findings.

## 2. THEORETICAL FRAMEWORK

Given the nature and pattern of trade in cultural goods the Gravity model of international trade is most suitable for such a study. This model is motivated by the Newton's law of gravity, whereby the gravitational force between two bodies is determined by their distance and mass. The Gravity framework in economics was introduced by Tinbergen (1962) and its theoretical foundation was provided by Anderson (1979). The Gravity model embodies an appropriate framework to test the marginal effect on bilateral trade flows of the determining variables [Lewer and Berg (2008)].

The basic Gravity equation is as the following:

$$T_{ij} = G \left( \frac{Y_i Y_j}{D_{ij}} \right) \quad \dots (1)$$

where,  $T_{ij}$  is bilateral trade volume,  $Y_i$  is country  $i$ 's GDP,  $Y_j$  is country  $j$ 's GDP,  $D_{ij}$  is the distance between countries  $i$  and  $j$ , and  $G$  is a constant. Eq. (1) can be re-written in log natural form as:

$$\ln T_{ij} = \ln G + \alpha_1 \ln GDP_i + \alpha_2 \ln GDP_j + \alpha_3 \ln D_{ij} + \varepsilon_{ij} \quad \dots (2)$$

Eq. (2) describes the value of bilateral trade as a function of the market size of the importer and exporter countries as well as the distance between them. Both market sizes create push and pull effects on the value of bilateral trade, and are characterized by the GDP. Distance, representing trade barriers, is generally measured by geographic distance between two countries (absolute distance). It is anticipated that large distance between trading partners leads to a decrease in trade, as trade becomes more complicated to handle and as such enhances transaction costs.

Based on Eq. (2), we use the following empirical-specification (Eq. (3)) to link exports ( $Exp_{pj}$ ) from Pakistan to its  $j$ th trading partner with core and additional variables:  $Y_p$  is the GDP of Pakistan,  $AREA_j$  is area of the  $j$ th trading partner,  $CONTIG_{pj}$  is contiguity between Pakistan and the  $j$ th trading partner,  $COMMLANG_{pj}$  is common language between Pakistan and the  $j$ th trading partner,  $LL_j$  is whether the  $j$ th trading partner is landlocked or not, and  $COL_{pj}$  is whether Pakistan and the  $j$ th trading partner have colonial ties:<sup>3</sup>

$$\ln Exp_{pj} = \ln \alpha_0 + \alpha_1 \ln Y_{pt} + \alpha_2 \ln Y_{jt} + \alpha_3 \ln D_{pj} + \alpha_4 \ln AREA_j + \alpha_5 \ln CONTIG_{pj} + \alpha_6 \ln COMMLANG_{pj} + \alpha_7 LL_j + \alpha_8 \ln COL_{pj} + \varepsilon_t \quad \dots (3)$$

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<sup>27</sup> See, Lionetti and Patuelli (2010).

### 3. VARIABLE CONSTRUCTION AND DATA

In the following, we describe the construction of the variables and their theoretical relationship with the dependent variable as well as the data sources used:

**Country Economic Sizes ( $Y$ ):** Economic scale or size is measured by the national incomes of trading countries. The greater the economic size of a country, the larger is its potential ability to supply and demand. Thus, larger countries tend to trade more with each other and countries that are of similar sizes also trade more [Feenstra (2004)]. GDP data for Pakistan and its trading partners are obtained from World Development Indicators published by the World Bank.

**Distance ( $D_{pj}$ ):** Distance proxies for transportation costs and trade barriers. Trade costs are likely to increase with the distance between trading partners. Leamer and Levinsohn (1995) found a robust negative relationship between distance and trade volume. Other studies including Teresa (2011), Lionteii and Patuelli (2010), and Disdier, *et al.* (2010) also found a negative relationship between distance and trade in cultural goods. Distance data between Pakistan and its trading partner countries from capital to capital city are obtained from Centre d'Etudes Prospectives et d'Informations Internationales, France.

**Common Language ( $COMMLANG$ ):** This variable indicates whether the exporting country and its trading partner share the same language or not. Common language makes it easy to interact, communicate, collect material, build business relations and helps in the process of signing contracts. Thus, reducing transaction costs, and eventually leading to a positive impact on bilateral trade. Besides, when language is common then cultural goods are easily accepted by the residents of the destination country. Following Zigano and Mayer (2006), we use a dummy variable of common official language between Pakistan and its trading partner countries. Information on Common language is obtained from Centre d'Etudes Prospectives et d'Informations Internationales, France.

**Common Border—Contiguity ( $Contg$ ):** Countries that share a common border are often well aware of each other's consumers' choices and trading prospects. Moreover, common borders imply relatively short distance. Because of these reasons, mutual trade is less costly. We have used a dummy variable to reflect a common border by using information obtained from Centre d'Etudes Prospectives et d'Informations Internationales France.

**Common History ( $COL$ ):** Members of the same colonial empire upsurges the information about trading partner's organizations and business practices. Colonial relationship reduces cultural differences between countries and thus reduces transaction costs in trade. Lionetti and Patuelli (2010) and Cheptea (2007) found a positive relationship between bilateral trade and colonial links. Following these studies, we use a dummy variable on the basis of information obtained from Centre d'Etudes Prospectives et d'Informations Internationales, France.

**Landlocked Countries ( $LL$ ):** When a country is landlocked and does not have a shipping port or direct access then the trade-related costs are high. This is because they may have to rely on other countries to transport their goods. We use a dummy variable on the basis of information obtained from Centre d'Etudes Prospectives et d'Informations Internationales, France.

**Land Area ( $AREA_j$ ):** People of countries with large land area normally have greater acceptability and tolerance for cultural diversity. Therefore, it is likely that the relationship between land area and trade is positive. Information on land area is obtained from Centre d'Etudes Prospectives et d'Informations Internationales, France.

Data for the dependent variable  $Exppj$  are obtained from UN COMTRADE database.

#### 4. RESULTS AND DISCUSSION

Empirical findings reported in this section are based on Pakistan's cultural goods exports listed in Appendix-2 with 157 trading partners listed in Appendix-3, for the period 2003 to 2012. The analysis is further extended to the six-digit HS codes level, for six sub-categories: books, jewelry, crafts and paintings, newspapers and other printed matter, musical instruments and visual arts (Appendix-1).

To describe the main features of the data used in this study, summary statistics are reported in Table 1. The table elaborates Pakistan's exports in cultural goods with reference to mean, median, standard deviation and minimum and maximum values of variables. The mean exhibits that the value of jewelry is the highest amongst all export categories, which shows the highest level of exports. Crafts and paintings have the second highest mean value. Books have the lowest average export value.

Table 1. Summary Statistics

Variable	Mean	Median	Max.	Min.	Std. Dev.
Total Exports	4784628	63605	1520000	10.00	51944447
Exports: books	40350	5014	690140	1.00	102456.8
Exports: jewelry	14395455	15288	1.52E+09	12.00	1.12E+08
Exports: musical instruments	51999	8641	879250	3.00	125297.2
Exports: visual arts	105710	16845	5231345	5.00	351742.8
Exports: crafts and paintings	2027119	97052	1.18E+08	17.00	8558559
Exports: newspaper & printed matter	13275	1497	336963	1.00	37241.69
$D_{pj}$	6433	5308	16694.83	374.65	3931.216
$AREA_j$	987687	238538	17075400	25.00	2393874

The mean value of distance shows that the average radius of the reach of Pakistan's exports of cultural goods is 6432 km. The maximum average distance of Pakistan's exports is recorded as 16,694.83 km whereas minimum average distance recorded to 374.65 km. The average area of a country to whom Pakistan exported its cultural goods during 2003 and 2012 is 987,686.7 Sq km.

##### 4.1. Unit Root Test

We begin with the evaluation of the time series data in terms of their being stationary or non-stationary so that a valid and reliable estimation approach is identified. The null and alternative hypotheses used to conduct unit root test are as follows:

$H_0$ : All the variables exhibit unit root.

$H_1$  : All the variable exhibit unit root.

As  $N \gg T$  (where  $N$  is number of (1165) observations and  $T$  (10 years) is time period), therefore stationarity should not be a problem. Nonetheless, we use different tests to check for the stationarity of variables. Results of this test are reported in Table 2, which show that all variables are stationary. So we reject the null hypothesis that variables exhibit unit root. Distance and area variables fail to show any result because they are time independent. Rests of the variables included in the model are dummy variables.

Table 2. Unit Root Test

Test name	Trade value (TV)		GDPi		GDPj	
	coefficient	prob	coefficient	prob	coefficient	prob
Hadri Z-stat	20.7024	0.0000	24.5459	0.0000	25.0959	0.0000
Levin, Lin & Chu t*	-98.2744	0.0000	-29.1971	0.0000	-47.2511	0.0000
Im, Pesaran and Shin W-stat	-5.81882	0.0000	-2.00355	0.0226	-4.67089	0.0000
ADF - Fisher Chi-square	240.559	0.0129	268.888	0.0003	245.018	0.0000
PP - Fisher Chi-square	597.026	0.0000	604.218	0.0000	336.876	0.0000

## 4.2. Generalized Least Square

We estimate the Gravity equation by using of the Common Constant method<sup>4</sup>. Panel Estimated Generalized Least Squares (EGLS) method is applied to estimate the equation with country weights and correction of standard errors for problems of autocorrelation and heteroscedasticity. This method is suitable for unbalanced panel data set as it can handle a vast range of data that are unequally spaced and have problem of heteroscedasticity [Baltagi and Wu (1999)]. OLS and GLS have same model equation but only difference is that residuals do not need to follow same assumptions as of OLS [Orlaith (2010)]. We also applied SUR (PCSE) to get rid of problem of autocorrelation.

Table 3 shows regression results for overall exports<sup>5</sup> in cultural goods of Pakistan with its trading partners. Estimates are reported for relationships between dependent variable and

<sup>28</sup> Yu and Park (2011), Chang, *et al.* (2008) and Hwang (2012) used pooled least squares method to estimate the Gravity equation. In our case, we tried both fixed and random effects models but results were not consistent as our data set is an unbalanced panel. Fixed effects model generated dummies equal to the cross sections. We have 157 cross-sections and the Gravity model also consists of dummies so inclusion of more dummies created singularity problem. This is why fixed effects model is not suitable for our study. It may be noted that the Common Constant method works under the principal assumption that there are no differences among cross-sectional data sets. This method, also known as “pooled OLS” method, assumes common constant  $\alpha$  for all the cross sections in the model. We cannot use Pesaran’s CD test because of lower and missing number of observations in selected countries.

<sup>29</sup> Results of individual categories according to UNESCO definition are shown in Appendix-1.

independent variables including home and host country's GDP, distance, land area and a set of dummies. Most of the Gravity model variables are found to be statistically significant at 1% level of significance.

Table 3. Total Cultural Goods Exports

Dependent Variable: LOG(Grand Total Exports)				
Methods: Panel EGLS (Cross-section weights)				
Total panel (unbalanced) observations: 1164				
Cross-section SUR (PCSE) standard errors & covariance (d.f. corrected)				
Variable	Coefficient	Std. Error	t-Statistic	Prob
C	15.42654	0.619010	24.92133	0.0000***
LOG(GDP <sub>i</sub> )	0.103590	0.029035	3.567735	0.0004***
LOG(GDP <sub>j</sub> )	-0.069319	0.017915	-3.869371	0.0001***
LOG(DP <sub>j</sub> )	-0.921862	0.058249	-15.82618	0.0000***
LOG(AREA)	0.302063	0.022882	13.20081	0.0000***
COMMLANG <sub>pj</sub>	0.276463	0.099237	2.785881	0.0054***
CONTIG <sub>pj</sub>	0.075339	0.116200	0.648360	0.5169
LL <sub>j</sub>	-2.127878	0.146204	-14.55420	0.0000***
COL <sub>pj</sub>	4.759326	0.096127	49.51085	0.0000***
R-squared	0.699445	Adjusted R-squared		0.697364
F-statistic	335.9869	Prob(F-statistic)		0.0000***

\*\*\* indicates that estimated coefficient is statistically significant at 1% level.

The result depicts that Pakistan's GDP is statistically significant at 1% level and has a positive sign. It shows a direct relation between GDP growth rate of Pakistan and its exports of cultural goods, implying that when the domestic economy grows it generates large exportable surpluses and thus export more. The coefficient for the home country GDP growth indicates that a 1% growth in Pakistan's GDP leads to a 0.10% growth in exports of cultural goods. This result is consistent with the findings of other studies including Disdier, *et al.* (2010) and Yu and Park (2011).

Estimated coefficient shows that a 1% increase in the growth of the trading partner country's GDP decreases Pakistan's exports by 0.06%. This result is contrary to the theoretical prediction about the relationship. The intuition behind this result is that richer countries themselves have more space for producing various kinds and varieties of goods. So when they produce more they decrease their imports of cultural goods from countries like Pakistan who do not have much cultural influence abroad. In such a situation, the substitution effect appears stronger than the income effect.

The estimated result reveals that the relationship between distance and cultural goods exports is negative and statistically significant at 1% level. This implies that economic distance is a hindrance in cultural goods exports. The estimated coefficient indicates that a 1% increase in distance leads to 0.92% decrease in cultural goods exports. Our result is consistent with studies of Frankel (1997) and Wall (1999).

The estimated coefficient of land area is positive and statistically significant at 1% level. This implies that when land area of the trading partner country increases by 1% then exports of cultural goods increases by 0.30%. This finding is consistent with the results found by Lili (2011).

Common language shows a direct and statistically significant link with exports of cultural goods. Its estimated coefficient is 0.28, which shows that for those countries with whom Pakistan shares language, it exports 0.28 times more of cultural goods than with countries who do not have a common language with it.

Pakistan shares common border with India, Iran, Afghanistan, and China. According to the estimated coefficient the sign of the relationship is positive but the result is statistically insignificant. Nevertheless, the result shows that export of cultural goods with common border countries increases by 0.08 times as compared with the rest of the countries. These results are in line with theoretical predictions and those found by Disdier, *et al.* (2010).

The estimated coefficient of landlocked countries exhibits a negative relationship with exports of Pakistan's cultural goods trade and is highly significant. Thus, if the trading partner country is landlocked then exports of cultural goods from Pakistan decreases by 2.12 times as compared to countries that are not landlocked. Our results are consistent with studies of Dollar and Kraay (2003), and Francois and Manchin (2007).

Colonial link is statistically significant at 1% level and its coefficient is positive. Its coefficient indicates that for countries with whom Pakistan had a colonial link its export of cultural goods increases by 4.75 times as compared with rest of the trading partner countries. Our results are consistent with the study of Lionetti and Patuelli (2010).

## 5. CONCLUSION AND POLICY IMPLICATIONS

Empirical analysis based on the Gravity model led us to conclude that exports in cultural goods are strongly influenced by the GDP growth of Pakistan but negatively affected by the GDP growth in the trading partner countries. Distance which is a proxy for the cost of transportation and trade barriers negatively affects exports of cultural goods. Land area of importing countries boosts exports of cultural goods as it creates greater acceptability of diverse foreign cultures and cultural goods. Exports of cultural goods sharply increase with those trading partner countries that have colonial ties and share a common language with Pakistan. Under the present circumstances, common border with importing countries is a weak factor to promote exports of cultural goods. Countries that are landlocked are generally isolated from participating in global trade import relatively less from Pakistan than its other trading partner countries.

It is evident from the preceding analysis that Pakistan has vast potential for export growth in cultural goods provided corrective policy measures are adopted. On the basis of the empirical findings, we draw the following policy implications for the promotion of exports of cultural goods:

- Increase domestic production of cultural goods by enhancing productivity and efficiency of domestic industries producing them.

- Ensure quality of cultural goods commensurating with the income levels of trading partners.
- Reduce trade barriers (e.g., the distance) by using modern electronic and social media technology, advertisement and promotional activities world-wide.
- Lower border restrictions and facilitate exports to increase exports of cultural goods to neighboring countries.
- Focus on countries with large land areas to tap their higher and wider acceptability for diverse foreign cultures and products.
- Target countries having common language with Pakistan for the promotion of cultural goods exports. This initiative would enhance competitiveness by reducing the cost of transaction.
- Develop cost effective air links and cargo services to boost exports of cultural goods to landlocked countries.

## APPENDICES

Appendix Table 1: Exports of Pakistan's Cultural Goods by Categories (Million US dollars)

Year	Paintings	News Papers	Other Printed Matter	Crafts	Antiques	Jewelry	Books	Musical Instruments	Visual Arts	Total
2003	0.09	1.38	0.14	225.74	0.1	25.14	2.76	2.12	20.28	277.75
2004	0.18	0.71	0.32	258.23	0.23	29.04	2.76	2.71	12.68	306.86
2005	0.14	0.79	0.23	290.59	0.15	20.62	2.1	2.88	12.02	329.52
2006	0.28	0.21	0.1	247.61	0.29	24.06	2.73	4.42	8.13	287.83
2007	0.02	0.09	0.16	224.63	0.03	120.32	2.53	3.46	5.81	357.05
2008	0.14	0.07	0.26	189.08	31.25	239.83	2.3	4.19	7.3	474.42
2009	0.05	0.06	0.29	132.56	0.05	478.91	2.67	3.64	5.53	623.76
2010	0.12	0.03	0.11	132.5	0.12	590.24	2.47	3.58	5.2	734.37
2011	0.23	0.06	0.37	134.93	11.76	469.32	2	3.59	2.08	624.34
2012	0.09	0.17	0.3	121.24	0.09	1,634.07	2.75	3.18	2.86	1764.75

Source: UN COMTRADE, 2013.

Appendix Table 2: Cultural Goods Exports Share (%)

Country	Share
UK	15.43
USA	34.97
China	20.4
India	18.01
Germany	10.51
Pakistan	0.68

Source: UNCOMTRADE, 2012.

Appendix-1: Individual Category Results

Variable	Musical Instrument	Jewelry	Visual Arts	Books	Newspapers and Other Printed Matter	Crafts and Painting
C	10.81988*** (1.607423)	13.23392*** (2.829634)	12.45317*** (0.754473)	21.22402*** (1.321552)	10.41851*** (1.237455)	15.13304*** (0.559182)
GDPI	0.149002*** (0.032022)	0.096057** (0.045737)	0.135496*** (0.047326)	0.02596 (0.06345)	0.241554*** (0.033265)	0.151528*** (0.037085)
GDPJ	-0.112768*** (0.018578)	-0.098893*** (0.037761)	-0.037926*** (0.013981)	-0.003586 (0.020767)	0.008505 (0.018731)	-0.071687*** (0.019511)
LOG(DISTANCE)	-0.468076** (0.183749)	-1.568454*** (0.329757)	-0.677601*** (0.085415)	-1.809288*** (0.174928)	-0.755626*** (0.143148)	-0.803194*** (0.078981)
LOG(AREA)	0.149689*** (0.02305)	0.699936*** (0.053404)	0.206697*** (0.020848)	0.169348*** (0.033903)	0.157957*** (0.034505)	0.244917*** (0.023573)
CONTIG	-	-3.266117*** (0.688133)	0.621901*** (0.177068)	-1.627817*** (0.469107)	-	0.219701 (0.17575)
SMCTRY	-2.902227*** (0.403885)	-6.593509*** (0.840408)	-	-	0.034226 (0.322359)	-1.359257*** (0.289381)
LANDLOCKED	-2.214824*** (0.294244)	-1.670197*** (0.29152)	-1.952095*** (0.144642)	-2.286794*** (0.288439)	-0.97099*** (0.185445)	-1.352253*** (0.138445)
COL	3.598144*** (0.140692)	2.90007*** (0.217915)	3.115939*** (0.194101)	3.955425*** (0.188582)	3.524505*** (0.262178)	4.122904*** (0.117747)
COMLANG_OFF	0.120811 (0.115213)	3.737919*** (0.325239)	-	1.594269*** (0.198552)	0.392203** (0.183838)	-
R-squared	0.769949	0.704348	0.433499	0.232209	0.510356	0.577875
F-statistic	157.3028	60.61782	83.73731	23.13652	56.15384	163.5915
No of observations	385	239	774	621	440	965

Appendix-2: Commodities included in the study

Domain	HS Code	Description
Musical Instruments	830610	Bells, gongs and the like
	920590	Wind musical instruments (excl. brass-wind instruments)
	920890	Fairground organs, mechanical street organs, mechanical singing birds, musical saws and other musical instrument; decoy calls of all kinds; whistles, call horns
	920290	Guitars, harps and other string musical instruments (excl. with keyboard and those played with a bow)
	920510	Brass wind instruments (for example, clarinets, trumpets bagpipes)

	920600	Percussion musical instruments (for example drums, xylophones, cymbals, castanets, maracas)
	920810	Musical boxes
	920190	Harpsichords and other keyboard stringed instruments (excl. pianos)
	920110	Upright pianos
	920710	Keyboard instruments other than accordions
Paintings and Crafts	970190	Collages and similar decorative plaques
	491191	Pictures, designs and photographs
	970110	Paintings, drawings and pastels, executed entirely by hand, other than drawings of heading
	570110	Carpets of wool or fine animal hair, knotted
	581099	Embroidery in the piece, in strips or in motifs
	570190	Carpets of materials n.e.s. , knotted
	570210	Handmade rugs
	500720	Woven fabric >85% silk (except noil silk)
	581100	Quilted textile products in the piece
	580890	Other braids in the piece; ornamental trimmings in the piece, without embroidery; other than knitted or crocheted
	570232	Carpets of manmade yarn, woven pile, not made up, n.e.s.
	580640	Fabrics consisting of warp without weft assembled by means of and adhesive
	580631	Narrow woven fabrics: Other woven fabrics of cotton
	581010	Embroidery in the piece, in strips or in motifs without visible ground
	600293	Knit or crochet fabric of manmade fibres, n.e.s.
	580810	Braids in the piece; ornamental trimmings in the piece, without embroidery; other than knitted or crocheted
	581091	Embroidery in the piece, in strips or in motifs: Other embroidery of cotton
	581092	Embroidery in the piece, in strips or in motifs
	580610	Narrow woven fabrics: Woven pile fabrics (including terry toweling and similar terry fabrics) and chenille fabrics
	580620	Narrow woven fabrics: Other woven fabrics, containing by weight 5% or more of elastomeric yarn or rubber thread
	580639	Narrow woven fabrics: Other woven fabrics of other textile materials
	580632	Narrow woven fabrics: Other woven fabrics of man-made fibers
580900	Woven fabrics of metal thread and woven fabrics of metallized yarn of heading	
580500	Hand-woven tapestries of the type Gobelins, Flanders, Aubusson, Beauvais, etc.	
Jewelry	711320	Articles of jewelry and parts thereof of base metal clad with precious metal
	711620	Articles of precious or semi-precious stones (natural, synthetic or reconstructed)
	711319	Articles of jewelry and parts thereof of other precious metal, whether or not plated or clad with precious metal
	711411	Articles of goldsmiths' or silversmiths' wares and parts thereof of silver, whether or not plated or clad with other precious metal
Visual Arts	442090	Wood marquetry and inlaid wood; caskets and cases for jewelry or cutlery, and similar articles, of wood; wooden articles of furniture
	701890	Glassware articles including statuettes
	960110	Worked ivory and ivory articles

	960190	Bone, tortoiseshell, horn, antlers, coral, mother-of-pearl and other animal carving material, and articles of these materials (including articles obtained by molding)
	442010	Statuettes and other ornaments, of wood
	691310	Statuettes and other ornamental ceramic articles of porcelain or China
	392640	Statuettes and other ornamental articles in plastic
	830629	Statuettes and other ornaments, of base metal, not plated with precious metal
	970300	Original sculptures and statuary, in any material
Books	490110	Printed reading books, brochures, leaflets and similar printed matter
	490199	Printed books, brochures and similar printed matter
	490191	Dictionaries and encyclopedias and serial installments thereof
Newspapers and Other Printed Matter	490900	Postcards, printed or illustrated; printed greeting cards
	490300	Children's picture, drawing or coloring books
	491000	Calendars of any kind, printed, including calendar blocks
	490210	Newspapers, journals and periodicals, whether or not illustrated or containing advertising material appearing at least four times a week
	490290	Other newspapers, journals and periodicals

Source: UNESCO (2000).

### Appendix 3: List of Partner Countries Included in the Study

Afghanistan, Albania, Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda, Bolivia, Bosnia, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Chile, China, Colombia, Congo, Costa Rica, Cote d'Ivoire, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Dominican, Ecuador, Egypt, El Salvador, Equatorial Guinea, Estonia, Ethiopia, Fiji, Finland, France, Gambia, Georgia, Germany, Ghana, Greece, Greenland, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong SAR China, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Korea Rep., Kuwait, Kyrgyz Republic, Latvia, Lebanon, Liberia, Libya, Lithuania, Luxembourg, Macao SAR China, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Mauritius, Mexico, Moldova, Mongolia, Morocco, Mozambique, Namibia, Nepal, Netherlands, New Zealand, Niger, Nigeria, Norway, Oman, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russian Federation, Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovak Republic, Slovenia, South Africa, Spain, Sri Lanka, St. Lucia, St. Vincent and Grenadines, Sudan, Suriname, Swaziland, Sweden, Switzerland, Syria, Tajikistan, Tanzania, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, UAE, United Kingdom, United States, Uruguay, Uzbekistan, Venezuela Rep., Vietnam, Yemen Rep., Zambia, Zimbabwe.

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