Love Me, Love My Dog: Effects of Attitudes on Trade and FDI

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Abstract

Research based on the gravity model has shown that noneconomic factors affect international trade and foreign direct investment (FDI), and recent studies have shown that people's perception affects economic exchange. In this study, we explore the effects of attitudes on bilateral trade and FDI. Using survey data from the Pew Research Center's Global Attitudes Projects for 63 countries from 2002 to 2013, we determine that a more favorable attitude of a country toward another country will increase the former country's imports from the latter country. The result is robust to endogeneity check, to different measures of attitudes, and to different estimation methods. However, heterogeneity is observed across different types of goods and countries. The result holds for trade in intermediate and consumer goods, but the effects are not statistically significant for capital goods. The effects are statistically significant for bilateral trade between different country groups, except for high-income countries' imports from non-high-income countries. Positive effects of attitudes on exports and FDI are also observed.

Keywords: attitude, bilateral trade, FDI
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1. Introduction

People have different attitudes toward different countries, and countries struggle to build and maintain good images for favorable attitudes. Does it matter how foreigners view us? Does attitude affect international trade? Anecdotal evidence seems to support a positive answer. For example, in April 2014, Chinese President Xi Jinping used two pandas to break the ice and soften European opposition to a free trade deal with China during a visit to Belgium.[1]

Existing studies analyzed the effects of culture and political relations between two countries on bilateral economic activities, such as trade and foreign direct investment (FDI). This study investigates the effect of *attitudes* on trade and FDI. The Pew Research Center's Global Attitudes Projects provide crucial data for our investigation. On the basis of Pew's attitude survey dataset from 63 countries and regions from 2002 to 2013, we observe that attitudes vary from country to country and change over time. For example, 37.41% of people from the US in the 2007 survey chose "very favorable" toward Canada, compared with only 1.97% toward Iran. People from the US in the survey choosing "very favorable" toward Japan corresponded to 16.78% in 2005 and 23.4% in 2008. By adding attitude as an explanatory variable to the traditional gravity model of international trade, we find that a more positive attitude of the reporting country toward a responding country increases bilateral trade between them, whereas a more negative attitude reduces bilateral trade. Specifically, a one standard deviation increase overall measure of attitude of people in country A toward country B increases country A's imports from country B by 6.56 percentage points and country A's exports to country B by 9.96 percentage points. We also construct the positive measure and the negative measure of attitude, and find that a one standard deviation increase in the positive attitude of people in country A toward country B increases country A's imports from country B by 8.05 percentage points and country A's exports to country B by 10.32 percentage points, whereas a one standard deviation increase in the negative attitude of people in country A toward country B reduces country A's imports from country B by 3.87 percentage points and

[1] See Reuters Report "Chinese tradition of using pandas to foster better relations around the world" (March 30, 2014, http://uk.reuters.com/article/2014/03/30/belgium-china-idUKL5N0MO459 20140330).

country A's exports to country B by 4.71 percentage points.

As far as FDI is concerned, a one standard deviation increase in the positive attitude of people in country A toward country B increases country B's FDI stock in-flown from country A by 8.38 percentage points.

Our paper belongs to the growing literature that examines the effects of cultural factors on economic and financial outcomes. Traditional gravity models are known to focus on the effects of economic factors (e.g., GDP) and connectivity factors (e.g., distance and common language). Cultural factors are believed important but difficult to measure. Several recent studies used various specific aspects of culture to analyze their effect on economic and noneconomic activities. Among these studies, one group (which the present study is most related to) explores the cultural effects on *bilateral* economic activities, such as international trade and FDI, whereas another group investigates the cultural effects on *individual* countries' economic performance (e.g., economic growth) and noneconomic outcomes (e.g., fertility).[2]

We shall discuss the first group of studies to show our paper's contribution to the literature clearly. The cultural aspect that Guiso et al. (2009) used in their paper is trust; they obtained the measure of trust from a set of surveys conducted by Eurobarometer, which covers the majority of European countries. They found that lower bilateral trust between two European countries results in less trade, less FDI, and less portfolio investment between the two countries.[3]

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[2] A set of studies also examined the effects of culture on firms' financial decisions and the financial market. Sapienza and Zingales (2011) provide a report/survey on the effects of trust on finance. In a recent study, Fisman et al. (2014) use the approach of event study to show that the stock values of Chinese and Japanese firms decline during the adverse shocks to the Sino-Japanese relations in 2005 (the textbook event) and 2010 (the Senkaku event). Ahern et al. (2015) show that culture distance between two countries reduces the volume and synergy gain of cross-border mergers. Hwang (2011) shows that a country's popularity among Americans, measured by Americans' attitudes towards the country, affects American investors' decisions in that countries, including securities and cross-border merges and acquisitions.

[3] Fehr (2009) provides a good discussion on the definition and measurement of trust. He proposes a behavior definition of trust, which is closely linked to economic primitives, such as preferences and beliefs. Such a definition would allow us to see more clearly the mechanism through which trust affects economic activities.

Michaels and Zhi (2010) focused on public attitudes; they examined whether changes in public attitudes between two countries affect their bilateral trade. They used the decline in the fraction of US Gallup Poll respondents who viewed France favorably from 83% in February 2002 to 35% in March 2003 and the decline of US favorability viewed by France from 63% to 43% from the Pew Research Center's Global Attitudes Projects during the same period to measure changes in public attitudes. Their analysis showed that worsening attitudes reduce bilateral trade by approximately eight to nine percentage points. They also showed that the reduction in trade is largely driven by the change in managers' own attitudes (which induces firms to switch the choice of input imports to other countries).

Some researchers focused on national conflicts. For example, Blomberg and Hess (2006) investigated many types of violence, such as war, terrorism, revolutions, and inter-ethnic fighting from 177 countries from 1968 to 1999.[4] Their analysis shows that the presence of all types of violence is equivalent to 30% tariff with regard to the effects on bilateral trade. Glick and Taylor (2010) focused on wars using a sample covering numerous countries over 1870–1997. They detected large, persistent, and negative effects of war on bilateral trade. Other studies have more detailed analyses but use smaller sample sets of countries. For example, Che et al. (2015) confirmed Glick and Taylor's (2010) findings by showing that the Japanese invasion of China during 1937–1945 reduced contemporary trade and investment between China and Japan.[5]

An important issue of analyzing the effects of culture is how to construct a variable to measure culture. Tabellini (2010) measured culture by aggregating individual responses collected in the opinion polls of the World Value Surveys (WVS) in the 1990s. The cultural measure of Tabellini (2010) included individual values and beliefs (such as trust), respect for others, and confidence. Notably, the measure is internal culture, not external culture, that is, unrelated to other countries. Tabellini (2010) also showed that culture has a significant effect on per capita output in Europe. Guiso et al. (2003) also used WVS

[4] Martin et al. (2008) make an important contribution to a different but related literature on the effects of trade on war. They show that bilateral trade reduces bilateral wars, but multilateral trade increases bilateral wars because of the gains from trade and asymmetric information.

[5] Fuchs and Klann (2013) use Dalai Lama's visit to a country to measure conflicts between China and that country. They show that the visits reduce China's import from those countries.

data, but focused on religion; they found that religion affects people's economic attitudes, which are conducive to higher per capita income and growth. Barro and McCleary (2003) investigated the effects of church attendance and religious beliefs on economic growth. Fernandez and Fogli (2009) used past female labor force participation and total fertility rates from the country of ancestry to proxy culture and analyzed the effect of culture on work and fertility of American women. Some studies examined the effects on trade of the individual countries' cultural factors, rather than bilateral relationship. Felbermayr and Toubal (2010) constructed a measure of cultural proximity based on bilateral score data from the Eurovision Song Contest; their results indicate that cultural proximity promotes trade.

A distinguishing feature of our study is that it deals with attitudes of numerous countries to examine their effects on imports, exports, and FDI. Although Michaels and Zhi (2010) also used attitude data from the Pew Research Center's Global Attitudes Projects, they only used the data to construct a dummy variable to capture the deterioration of relations between the US and France, which affects attitudes. By contrast, we use the data to construct a continuous attitude variable. Using worldwide data to examine the effects of attitudes on trade and FDI have least two benefits. First, conclusions based on two countries or a small set of countries may not be general; thus, our study is able to deliver more generalized findings on the effects of culture on economic exchange. Second, a large set of countries enables us to explore differential effects. For example, we determined that favorable attitudes of a high-income country have a positive and significant effect on imports from another high-income country, but the effect is insignificant on imports from another non-high-income country.

Our results, together with those in the literature, have strong policy implications. Trade liberalization can increase trade, but investing efforts and resources to build good images of the country and cultivate communications/relations between countries is also important in promoting trade.

The remainder of this paper is organized as follows: We set up the regression model and describe the data in Section 2. We present and discuss the empirical findings in Section 3. Finally, we provide some concluding remarks in Section 4.

2. Model Specification and Data

2.1. Gravity Model with Attitude

Gravity models are widely used to estimate trade volumes. Generally, bilateral trade volumes (or values) are determined by the economic size of the trading countries and the multilateral resistance, which includes trade policies, bilateral geographical distance, common borders, proximity of language, membership of free trade zones, and others (Anderson and van Wincoop, 2003). We augment the gravity model with bilateral attitude between trading partners. Specifically, we use the following gravity model to estimate the effect of attitude on bilateral trade flows:

$$lnImport_{ijt} = \alpha_0 + \alpha_i + \alpha_j + \alpha_t + \beta Attitude_{ijt} + \gamma_1 lnGDP_{it} + \gamma_2 lnGDP_{jt} + \gamma_3 lnDist_{ij} + \gamma_4 Contig_{ij} + \gamma_5 Comlang_{ij} + \gamma_6 Landlock_{ij} + \gamma_7 Religion_{ij} + \mu_{ijt}. \quad (1)$$

In model (1), $lnImport_{ijt}$ is the log value of country i's imports from country j in year t. Our key explanatory variable is $Attitude_{ijt}$, which represents the importing country's (i.e., country i) attitude toward the exporting country (i.e., country j) in year t. We also include the following set of control variables: GDP_{it} and GDP_{jt} are the GDP level of countries i and j in year t, respectively; $Dist_{ij}$ is the geographical distance between the two countries; $Contig_{ij}$, $Comlang_{ij}$, $Religion_{ij}$, and $Landlock_{ij}$ represent the existence of common borders, common official language, common religion, and whether the trading partners are both landlocked countries, respectively. All these, except $Religion_{ij}$, are dummy variables. Following Helpman et al. (2008), we define the common religion variable as follows:

$$Religion_{ij} = (\%\ \text{Protestants in country } i \times \%\ \text{Protestants in country } j) + (\%\ \text{Catholics in } i \times \%\ \text{Catholics in } j) + (\%\text{Muslims in } i \times \%\ \text{Muslims in } j).$$

In addition, we included year fixed effects (α_t), importing country fixed effects (α_i), and exporting country fixed effects (α_j). Year fixed effects control for the determinants of trade flows that only

change with time (for example, global economic cycle), whereas importing country fixed effects and exporting country fixed effects capture the time invariant characteristics of the importing and exporting countries, respectively. μ_{ijt} is the error term.

2.2. Data and the Attitude Variable

We obtain bilateral trade data from the United Nations Commodity Trade Statistics Database (Comtrade database). For the control variables, the GDP data were from the World Development Indicators, the bilateral relationship data (i.e., $Dist_{ij}$, $Contig_{ij}$, and $Comlang_{ij}$) were from the CEPII database, and the others ($Religion_{ij}$ and $Landlock_{ij}$) were from Helpman et al. (2008). In our model, the units of $Import_{ijt}$ and GDP are expressed in US dollars (for the current year), and the unit of distance is kilometer.

We construct our attitude variable based on data from the Pew Research Center's Global Attitudes Projects. The Pew Research Center conducts public opinion surveys around the world with more than 400,000 interviews and covers a broad array of subjects ranging from people's assessments of their own lives to their views about the current state of the world and important issues of the day. We extract information related to attitude. In the surveys, respondents are asked to report how much they like a specific country or the citizen of that country. A typical question in the surveys is as follows: Please tell me if you have a (i) very favorable, (ii) somewhat favorable, (iii) somewhat unfavorable, (iv) very unfavorable opinion of country A, or (v) do not know or refuse. On the basis of the survey data, we construct our attitude variable as follows: For every response from country B on the opinion toward country A, we first give a value 2 for a "very favorable" response, 1 for "somewhat favorable," −1 for "somewhat unfavorable," and −2 for "very unfavorable." Then, we calculate the fraction of each type of response in all responses of country B to country A. Finally, we use the fractions as the weights to calculate the weighted value of country B's attitude toward country A. Specifically, we let a_1, a_2, a_3, and a_4 denote the fractions of responses with "very favorable," "somewhat favorable," "somewhat unfavorable," and "very unfavorable," respectively. Then, we construct three different attitude variables.

The first variable is the overall attitude, defined as $Attitude = 2a_1 + a_2 - a_3 - 2a_4$, which is our core attitude variable. The second variable is the favorable (or positive) attitude variable, defined as $AttitudeP = a_1 + a_2$, which is the sum of the fractions of "very favorable" or "somewhat favorable." The third variable is the unfavorable (or negative) attitude variable, defined as $AttitudeN = a_3 + a_4$, which is the sum of the fractions of "very unfavorable" or "somewhat unfavorable." The value of *Attitude* is between −2 and 2, whereas that of *Attitude-P* and *Attitude-N* is between 0 and 1.

As an example, let us take the US as country B and India as country A in 2008. We have $a_1 = 0.17$, $a_2 = 0.449$, $a_3 = 0.12$, and $a_4 = 0.028$. The results of the three attitude variables are *Attitude* = 0.613, *AttitudeP* = 0.619, and *AttitudeN* = 0.148.

The Pew Research Center's Global Attitudes Projects has 59 reporting countries (i.e., countries whose citizens are asked about their opinions on other countries) and 27 corresponding countries (i.e., countries assessed by reporting countries) from 2002. However, considering the missing data of some countries, we only use 55 reporting countries and 26 corresponding countries in our analysis using data from 2002 to 2013. The reporting countries are Angola, Argentina, Australia, Bangladesh, Bolivia (Plurinational State of), Brazil, Bulgaria, Côte d'Ivoire, Canada, Chile, China, Czech Republic, Egypt, El Salvador, Ethiopia, France, Germany, Ghana, Greece, Guatemala, Honduras, India, Indonesia, Israel, Italy, Japan, Jordan, Kenya, Kuwait, Lebanon, Malaysia, Mali, Mexico, Morocco, Netherlands, Nigeria, Pakistan, Peru, Philippines, Poland, Republic of Korea, Russian Federation, Senegal, Slovakia, South Africa, Spain, Sweden, Tunisia, Turkey, USA, Uganda, United Kingdom, United Republic of Tanzania, Venezuela, and Viet Nam. The corresponding countries are Australia, Brazil, Canada, China, Egypt, France, Germany, Greece, India, Iran, Israel, Italy, Japan, Mexico, Nigeria, Pakistan, Republic of Korea, Russian Federation, Saudi Arabia, South Africa, Spain, Sudan, Turkey, USA, United Kingdom, and Venezuela.

Our research is based on a 12 year unbalanced panel dataset of 1,519 observations. Table 1 presents the descriptive statistics of the key variables, with significant variation in bilateral attitudes.

3. Regression Results

In a large set of countries, some countries commonly do not trade with some other countries in certain years. Our dataset is not an exception. Our dataset has 198 observations with zero bilateral trade, accounting for 13% of the entire sample. This null data could make the ordinary least square (OLS) estimation inconsistent. Thus, we follow Silva and Tenreyro (2006) and use the Poisson pseudo-maximum likelihood (PPML) estimator in our main analysis. However, the results are also robust to the use of the OLS method.

3.1. Basic Results

Basic regression results are reported in Table 2. From the basic gravity model augmented with the overall attitude variable, *Attitude*, in column (1), we introduce other interesting factors that may affect bilateral trade, including indicators of border sharing [column (2)], common language [column (3)], whether the two countries are both landlocked [column (4)], and sharing the same religion [column (5)]. Column (5) includes all control variables. In every regression, we control for all fixed effects (year, importing country, and exporting country). We detect for all regressions that attitude has a significant and positive effect on imports: If a country has a more favorable attitude toward another country, then the former country will increase its import from the latter country. The effect is economically significant. For example, from the full specification estimation in column (5), a 1 standard deviation increase in the attitude increases imports by 6.54 percentage points (= 0.1058×0.6185 as the standard deviation of *Attitude* is 0.6185 from Table 1). In column (6), we replace the overall attitude variable by the positive attitude variable, *AttitudeP*, with all control variables included. The coefficient of *AttitudeP* is positive and statistically significant, indicating that the more favorable a country's attitude toward its trading partner is, the more imports the country has from that partner country. In column (7), we use the negative attitude variable, *AttitudeN*. The coefficient of *AttitudeN* is negative and statistically significant, indicating an adverse effect of negative attitude on imports. This finding means that the more negative a country's attitude toward its trading partner, the less that country imports from that partner country.

The results shown in columns (6) and (7) are consistent and lend further support to the results shown in columns (1) to (5).

The estimates of the control variables are intuitive and consistent with the findings using the traditional gravity model. For example, the effects of GDP are significant and positive, which implies that larger countries trade more with each other. Countries that are closer to each other, have common borders, have a common official language, and have a common religion tend to trade more, whereas the landlocked countries tend to trade less.

In summary, we obtain consistent evidence that a more favorable attitude of a country toward its trading partners has positive effects on the country's imports from those countries, and the effects are statistically and economically significant.

3.2. Robustness Check

In this subsection, we check the robustness of the results obtained by using alternative measures and estimation methods. The results are presented in Table 3.

First, we follow Guiso et al. (2009) and construct a measure called attitude count (*Attitude-count*), which is the mean value of the responses, to check whether our result is sensitive to the construction of the key explanatory variable, that is, attitude. For example, based on all responses from country B on their opinion toward country A, we first assign a value of 4 to a "very favorable" response, 3 to "somewhat favorable," 2 to "somewhat unfavorable," and 1 to "very unfavorable." We used a different set of values to avoid negative values. Then, we record the occurrence of each type of responses. We let n_1, n_2, n_3, and n_4 denote the fractions of responses with "very unfavorable," "somewhat unfavorable," "somewhat favorable," and "very favorable," respectively.[6] Finally, we define *Attitude-count* = $(n_1 + 2n_2 + 3n_3 + 4n_4)/(n_1 + n_2 + n_3 + n_4)$. Using this new variable in model (1) to replace *Attitude*, we obtained the results shown in column (1) of Table 3. The effects of attitude on imports are positive and statistically significant.

[6] The sum of these four fractions does not add up to 1 because a fifth category, which is "do not know" or "refused," exists.

We now return to our attitude variable, *Attitude*, as previously used in the main analysis to address other issues and report them in columns (2) to (6) of Table 3. In our baseline regressions, we controlled for the time-variant GDP of the importers and exporters and the time-invariant country-specific factors that may affect trade. However, other country-level time-variant unobservable factors that are correlated with attitude and trade may exist. These factors may create bias in our estimates. In column (2), we include importer-year and exporter-year fixed effects to deal with this issue. Notably, the importer's GDP and exporter's GDP (which are country-level time-variant variables) are excluded in this regression. We find that the effect of attitude on import is still significantly positive and the magnitude of the effect is even stronger than that in the baseline regression in column (5) of Table 2. In column (3) of Table 3, in addition to year fixed effect, we further include importer–exporter fixed effect to control for any potential importer–exporter specific time-invariant factors that may affect trade. Clearly, our result is robust to this test. Thus far, we used PPML to estimate the effects of attitude on trade because many observations of zero trade exist in the data. Then, we use the simple OLS method to check if our result is robust to an alternative estimation method. We run the OLS regression by excluding zero trade observations.[7] The results are reported in column (4), which are consistent with the previous findings.

On examining the effect of country *i*'s attitude toward country *j* on *i*'s imports from *j*, we used data reported by *j* on its export to *i*. Alternatively, we can use data reported by country *i* on its imports from country *j*. In theory, these two sets of data should be the same, but in reality, discrepancies between them are detected because of the existence of insurance, freight, and inevitable record errors. In column (5), we use the import data reported by the importing countries as the dependent variable to ensure that our results are unaffected by this potential measurement error. Column (5) confirms that our result is robust.

The bilateral attitudes between two countries may be correlated, which may also lead to omitted variable bias in our estimation. Therefore, in column (6), we control for the exporter's attitude toward the importer (i.e., $Attitude_{jit}$) in our baseline regression. We observe that our finding remains valid.

[7] Our result is also robust to including the zero trade observations and using ln(import + 1) as the dependent variable.

3.3. Endogeneity and Instrumental Variable (IV) Estimation

We have observed a positive and robust effect of favorable attitude on trade. However, the reliability of the result is based on the conditional independence assumption (CIA), that is, attitude is uncorrelated with the error term conditional on the control variables. Although we control for some factors that may affect bilateral trade and attitude toward trading partners (which help alleviate the concern of the CIA to some extent), we now have a direct check on whether the results are biased by potential endogeneity problems.

The most obvious concern about endogeneity is that trade may also affect attitude. For example, consumers in an importing country might have favorable attitude toward an exporting country because they become more familiar with the exporting country through consumption of imported products and are attracted by the exporting country's culture because culture can be embedded in the products. This argument points to the potential reverse causality problem in our analysis of the effect of attitude on trade flows.

We propose two methods to address reverse causality. First, we use the one-year-lagged attitude (*Attitude-lag* or $Attitude_{ij(t-1)}$) as replacement for contemporaneous attitude ($Attitude_{ijt}$) in our regression model (1) to determine if this year's trade is affected by last year's attitude. The regression results are reported in column (1) of Table 4, and the result that favorable attitude increases imports still holds. For the same rationale, we also use the average value of attitude over the entire period 2002–2013 (*Attitude-avg* or $Attitude_{ij(2002–2013)}$) to replace the contemporaneous attitude in our regression model (1). The regression results are reported in column (2) of Table 4; the same result also holds.

We further check the possibility of reverse causality by doing a "falsification test." Reverse causality is likely to exist under the supposition that trade and attitude has a strong correlation, whereby if two countries (*i* and *k*) have similar trade flows with a third country (*j*), then *i*'s attitude toward *j* should be similar to *k*'s attitude toward *j*. Consequently, we can use *k*'s attitude toward *j* as a proxy for *i*'s attitude toward *j*, that is, we can substitute $Attitude_{ijt}$ in model (1) by $Attitude_{kjt}$. Using this idea, we constructed the proxy attitude for country *i* using the attitude of the country which has the import value

most similar to country *i*. We excluded the observations of zero trade because such proxy for them cannot be constructed. The regression results are reported in column (3). Notably, the coefficient of the proxy attitude is insignificant, implying that the supposition does not hold and reverse causality should not be a significant concern.

Although the two analyses indicate that the reverse causality problem is insignificant, the methods have their limitations. For example, using the lagged or average attitude cannot solve the problem if the current attitude is affected by past trade and trade is persistent. Therefore, we turn to IV estimation, as follows.

We follow Martin et al. (2008) to construct our IV using military conflicts between two countries. The Correlates of War project (available at http://www.correlatesofwar.org/) maintains a database on Militarized Interstate Disputes (MID), which lists all bilateral interstate conflicts from 1816 to 2010 and quantifies their intensity on a scale from 1 to 5, with 1 = no militarized action, 2 = threat to use force, 3 = display of force, 4 = use of force, and 5 = war. Our IV is the 20-year-lagged cumulated number of MID since a given time, for which we use either 1914 (the first year of WWI) or 1939 (the first year of WWII) in different regressions for robustness check. We restrict the MID to those with scale above 3 and define MID_{ijt} as the total number of MID (with scale above 3 as classified by country *i*) that country *i* had with *j* since 1914 or 1939, up to the year $t - 20$. For example, we use the total number of MID (with scale above 3 as classified by country *i*) between *i* and *j* from 1914 (or 1939) to 1993 to instrument the attitude of country *i* against *j* in 2013. We conduct the IV estimation based on PPML. We use the Stata program IVPOIS, which is the Stata module employed to estimate the instrumental variable Poisson regression via GMM (Nichols, 2007). In the first stage, we determined that *MID* is negatively correlated with *Attitude*, which implies that, ceteris paribus, wars between two countries worsen people's attitude toward each other. In the second stage, we use *Attitude* instrumented by *MID* to run the regression. Our IV estimation results are reported in column (4) for the *MID* starting from 1939 and column (5) for the *MID* starting from 1914. Clearly, the results confirm the previous finding that good attitude toward another country increases imports from that country.

Three remarks on using the aforementioned MID as an IV for attitude are as follows: First, MID

with scale 2 or 3 can also affect attitudes. As a robustness check, we also constructed our *MID* to include all MIDs at scale 2 or higher. We still observe a negative correlation between *MID* and *Attitude*, and using MID as IV, we find that attitude has a positive effect of attitude on imports. Second, on the direction of the *MID* variable, by definition, one may expect that $MID_{ijt} = MID_{jit}$ or that the number of conflicts between two countries for the same period of time should be the same. However, in the data, for the same conflict between two countries, one country may report a different scale from another country. Therefore, MID_{ijt} and MID_{jit} are not always similar, just as $Attitude_{ijt}$ and $Attitude_{jit}$ are unnecessarily similar. Third, whether or not military conflicts satisfy the exclusive restriction as the IV for attitudes is an issue for concern, although military conflicts negatively affect attitudes. We use our data to check this issue in columns (6) and (7). In column (6), we run trade on MID without including attitudes. Consistent with the literature, we determined that conflicts negatively affect trade. Then, in column (7), we simultaneously run trade on MID and attitudes; MID becomes insignificant, whereas attitudes remains positively significant, indicating that military conflicts affect trade mainly through changing attitudes but not through channels other than attitudes. This finding lends support to the validity of MID as the IV.

3.4. Heterogeneous Effects

3.4.1. Consumer Goods vs. Capital Goods

Attitude might have different effects on a country's imports, depending on the nature of the imported products. We classify all goods into three categories, namely, consumer goods, intermediate goods, and capital goods, using the Classification of Broad Economic Categories (BEC) published by the United Nations Statistics Division to verify whether this is the case. We run regression (1) for each of the three types of goods, and the results are reported in Table 5. We find that attitude has significantly positive effects on the imports of consumer goods and intermediate goods, but has insignificant effects on imports of capital goods. Furthermore, the magnitude of attitude effect on consumer goods (0.2033) is substantially larger than that on intermediate goods (0.0906), which is unsurprising because consumers are more sensitive to attitudes than firms (who make the purchasing decisions for intermediate goods and capital goods) and consumers have more substitute goods to choose from.

3.4.2. Development Levels

The sensitivity of trade to attitudes may depend on certain characteristics of the trading partners. In this subsection, we investigate the role of economic development level. We divided countries into two groups, namely, high-income and non-high-income countries. On the basis of the five categories defined by the World Bank's World Development Indicators (http://data.worldbank.org/about/country-and-lending-groups), our high-income country group consists of high-income OECD and high-income non-OECD countries, whereas our non-high-income country group includes upper-middle-income, lower-middle-income, and low-income countries. We run four different regressions with all control variables included. In the first regression, we only include high-income countries. The regression result is reported in column (1) of Table 6. The positive and significant estimate of *Attitude* (0.1327) indicates that a high-income country's favorable attitude toward another high-income country increases the former country's imports from the latter country.

The second regression is limited to the case where the importing countries are non-high-income countries and the exporting countries are high-income countries. The result shown in column (2) is similar to that in column (1), with the estimate of *Attitude* equal to 0.1394. Thus, a non-high-income country's favorable attitude toward a high-income country also increases the former country's imports from the latter country. Then, we switch the position of the importers and exporters in the third regression and reported the result in column (3). The estimate of *Attitude* is negative (−0.0389) but statistically insignificant; thus, a high-income country's favorable attitude toward a non-high-income country does not have a significant effect on the former country's imports from the latter country. In the fourth regression, the importing and exporting countries are non-high-income countries, with the result shown in column (4). The positive and significant estimate of *Attitude* (0.4302) indicates that a non-high-income country's favorable attitude toward another non-high-income country increases the former country's imports from the latter country.

We obtain two observations based on the comparison of the previously presented results. First, the source of heterogeneity of the attitude effects on trade lies in the exporting country's economic development level. If the exporting country is a high-income country (columns (1) and (2)), then the

attitudes of the importing country, whether high or low income, always have a positive effect on imports; even the magnitudes for the two types of importers are similar (0.1327 vs. 0.1394). By contrast, if the exporting country is a non-high-income country (columns (3) and (4)), then the effects of attitudes of the importing country are entirely different, depending on the importing country's economic development level: the effect of attitudes is insignificant for high-income importers, but positive for non-high-income importers. The attitude effect in the last group is not only positive but also larger than those when the exporting countries are high-income countries (0.4302 vs. 0.1327 and 0.1394).

The second observation is that high-income countries' attitudes make a difference; they have a significant effect on import when the exporter is a high-income country, but have an insignificant effect when the exporter is a non-high-income country.

3.5. Other Effects

We have analyzed the effect of a country's attitude toward another country on the former country's imports from the latter country, but does a country's attitude affect its exports and FDI? We examine these issues in this subsection.

First, we focus on the effect of country *i*'s attitude toward country *j* on the export of country *i* to country *j*. We replace country *i*'s import from country *j* in model (1) by $Export_{ijt}$, which is country *i*'s export to country *j* in year *t* and ran the regressions. The regression results are reported in Table 7. Column (1) is the baseline result for export, and column (2) is the results based on an alternative measure of attitude, that is, *Attitude-count*. In column (3), we return to the original attitude variable, *Attitude*, but control for exporter-year fixed effects and importer-year fixed effects to account for any potential country-year level factors that may affect bilateral exports. In column (4), we check the endogeneity problem using the MID_{ijt} IV with 1914 as the beginning year. All these estimations consistently show the significant and positive effects of attitudes on exports.

Then, we analyze the effect of country *i*'s attitude toward country *j* on country *i*'s FDI stock in country *j*. We replace the trade variable in model (1) by FDI_{ijt}, which is country *i*'s FDI stock in country *j* by year *t*, and we run the same set of regressions used in the export case. The results are reported in Table 8. All regression results are consistent and indicate that more favorable attitudes toward a country

lead to significantly more investments in that country.

4. Concluding Remarks

Cultures affect economic exchanges between countries. This study focuses on one aspect of culture, that is, attitudes. We determined that good attitudes toward another country increase bilateral trade (imports and exports) and FDI. This finding is robust to many model specifications and is confirmed by IV analysis using historical conflicts between countries as the IV for attitudes.

The present study shows a strong correlation between attitudes and trade. Although we use IV to circumvent the concern of reverse causality, more analysis along this line is needed to reconfirm the result. Another direction of future research is to explore the relation between attitudes and other cultural factors in the literature, such as trust. Although they differ, disentangling the effect of attitudes from other cultural factors will be interesting, something we were unable to do in the present study because of data limitations.

References

Ahern, Kenneth R., Daniele Daminelli and Cesare Fracassi, 2015, "Lost in Translation? The Effect of Cultural Values on Mergers around the World", Forthcoming, *Journal of Financial Economics*, 117(1), 165-189.

Anderson, James E. and Eric van Wincoop, 2003, "Gravity with Gravitas: A Solution to the Border Puzzle", *American Economic Review*, 93(1), 170-192.

Barro, Robert J., and Rachel M. McCleary, 2003, "Religion and Economic Growth", *American Sociological Review*, 68(5), 760-781.

Blomberg, S. Brock, and Gregory D. Hess, 2006, "How Much Does Violence Tax Trade?", *Review of Economics and Statistics*, 88(4), 599-612.

Che, Yi, Julan Du, Yi Lu and Zhigang Tao, 2015, "Once an Enemy, Forever an Enemy? The Long-run Impact

of the Japanese Invasion of China from 1937 to 1945 on Trade and Investment", *Journal of International Economics*, 96(1), 182-198.

Fehr, Ernst, 2009, "On the Economics and Biology of Trust", *Journal of the European Economic Association*, 7(2-3), 235-266.

Felbermayr, Gabriel J. and Farid Toubal, 2010, "Cultural Proximity and Trade", *European Economic Review*, 54(2), 279-293.

Fernandez, Raquel, and Alessandra Fogli, 2009, "Culture: An Empirical Investigation of Beliefs, Work, and Fertility", *American Economic Journal: Macroeconomics*, 1(1), 146-177.

Fisman, Raymond, Yasushi Hamao, and Yongxiang Wang, 2014, "Nationalism and Economic Exchange: Evidence from Shocks to Sino-Japanese Relations." *Review of Financial Studies*, 27(9), 2626-2660.

Fuchs, Andreas and Nils-Hendrik Klann, 2013, "Paying a Visit: The Dalai Lama Effect on International Trade", *Journal of International Economics*, 91(1), 164-177.

Glick, Reuven, and Alan Taylor, 2010, "Collateral Damage: Trade Disruption and the Economic Impact of War", *The Review of Economics and Statistics*, 92 (1), 102-127.

Guiso, Luigi, Paola Sapenza, and Luigi Zingales, 2003, "People's Opium? Religion and Economic Attitudes", *Journal of Monetary Economics*, 50, 225-282.

Guiso, Luigi, Paola Sapienza, and Luigi Zingales, 2009, "Cultural Biases in Economic Exchange?", *The Quarterly Journal of Economics*, 124 (3), 1095-1131.

Helpman, Elhanan, Marc Melitz and Yona Rubinstein, 2008, "Estimating Trade Flows: Trading Partners and Trading Volumes", *Quarterly Journal of Economics*, 123(2), 441-487.

Hwang, Byoung-Hyoun, 2011, "Country-Specific Sentiment and Security Prices", *Journal of Financial Economics*, 100 (2), 382-401.

Martin, Philippe, Thierry Mayer, and Mathias Thoenig, 2008, "Make Trade Not War?", *Review of Economic Studies*, 75(3), 865-900.

Michaels, Guy, and Xiaojia Zhi, 2010, "Freedom Fries", *American Economic Journal: Applied Economics*, 2(3): 256-81.

Nichols, Austin, 2007, IVPOIS: Stata module for IV/GMM Poisson regression. http://ideas.repec.org/c/boc/bocode/s456890.html.

Sapienza, Paola and Luigi Zingales, 2011, "Trust and Finance", *NBER Reporter*, 2011(2),16-19.

Santos Silva, J. M. C. and Tenreyro, Silvana, 2006, "The Log of Gravity", *The Review of Economics and Statistics*, 88(4), 641-658.

Tabellini, Guido, 2010, "Culture and Institutions: Economic Development in the Regions of Europe", *Journal of the European Economic Association*, 8(4), 677-716.

Table 1. The descriptive statistics of key variables

	(1)	(2)	(3)	(4)	(5)
Variable	Obs	Mean	Std. Dev.	Min	Max
$lnImport_{ijt}$	1321	21.7403	2.4010	6.9679	26.6342
$lnGDP_{it}$	1519	26.7620	1.8726	21.9301	30.4505
$lnGDP_{jt}$	1519	28.3083	1.4286	24.5497	30.4505
$lnDist_{ij}$	1519	8.4396	0.8649	4.7104	9.8755
$Contig_{ij}$	1519	0.1073	0.3096	0	1
$Comlang_{ij}$	1519	0.1192	0.3241	0	1
$Landlock_{ij}$	1519	0.0579	0.2337	0	1
$Religion_{ij}$	1519	0.1731	0.2630	0	0.9860
a_1	1519	0.1247	0.1254	0	0.8892
a_2	1519	0.3548	0.1507	0.0080	0.7543
a_3	1519	0.2318	0.1184	0.0033	0.5629
a_4	1519	0.1573	0.1464	0.0033	0.9350
Attitude	1519	0.0577	0.6185	-1.8880	1.8317
Attitude-P	1519	0.4794	0.2117	0.0120	0.9553
Attitude-N	1519	0.3891	0.2052	0.0067	0.9880

Table 2. Basic results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Attitude	0.2752***	0.1138***	0.1066***	0.1066***	0.1058***		
	(0.0371)	(0.0343)	(0.0344)	(0.0344)	(0.0345)		
AttitudeP						0.3794***	
						(0.1023)	
AttitudeN							-0.1878*
							(0.1035)
$lnGDP_{it}$	0.5706***	0.4705***	0.4800***	0.4800***	0.4788***	0.4800***	0.4744***
	(0.0726)	(0.0688)	(0.0697)	(0.0697)	(0.0699)	(0.0700)	(0.0724)
$lnGDP_{jt}$	0.4626***	0.4144***	0.3988***	0.3988***	0.4033***	0.4129***	0.3954***
	(0.0852)	(0.0746)	(0.0768)	(0.0768)	(0.0764)	(0.0767)	(0.0766)
$lnDist_{ij}$	-0.8069***	-0.6226***	-0.6179***	-0.6179***	-0.6039***	-0.6036***	-0.5966***
	(0.0272)	(0.0263)	(0.0272)	(0.0272)	(0.0275)	(0.0268)	(0.0277)
$Contig_{ij}$		0.6918***	0.6772***	0.6772***	0.6361***	0.6199***	0.6545***
		(0.0566)	(0.0569)	(0.0569)	(0.0557)	(0.0560)	(0.0561)
$Comlang_{ij}$			0.2781***	0.2781***	0.2780***	0.2770***	0.2848***
			(0.0469)	(0.0469)	(0.0469)	(0.0466)	(0.0472)
$Landlock_{ij}$				-1.1221*	-2.1622***	-1.0820*	-0.9913*
				(0.5846)	(0.5714)	(0.5800)	(0.5853)
$Religion_{ij}$					0.5821***	0.5832***	0.5868***
					(0.1609)	(0.1610)	(0.1616)
N	1503	1503	1503	1503	1503	1503	1503
R^2	0.9452	0.9579	0.9565	0.9565	0.9571	0.9577	0.9567

Robust standard errors in parentheses,*for $p < 0.10$, ** for $p < 0.05$, and *** for $p < 0.01$. In all regressions, importer, exporter and year fixed effects are included.

Table 3. Robustness of the results

	(1)	(2)	(3)	(4)	(5)	(6)
Attitude-count	0.1419***					
	(0.0467)					
Attitude		0.2821***	0.1039***	0.3578***	0.1245***	0.1590***
		(0.0929)	(0.0331)	(0.0747)	(0.0358)	(0.0407)
Attitude(partner)						0.2345***
						(0.0555)
$lnGDP_{it}$	0.4783***		0.6067***	0.6088***	0.5608***	0.4939***
	(0.0701)		(0.0459)	(0.1410)	(0.0730)	(0.0764)
$lnGDP_{jt}$	0.3991***		0.5239***	0.2274*	0.3441***	0.4084***
	(0.0766)		(0.0330)	(0.1318)	(0.0837)	(0.0770)
$lnDist_{ij}$	-0.6036***	-0.6482***		-0.8082***	-0.5511***	-0.6747***
	(0.0274)	(0.0487)		(0.0571)	(0.0277)	(0.0438)
$Contig_{ij}$	0.6414***	0.6756***		0.2229*	0.3858***	0.3061**
	(0.0551)	(0.0939)		(0.1145)	(0.0551)	(0.1250)
$Comlang_{ij}$	0.2767***	0.3648**		0.4319***	0.2370***	0.3155***
	(0.0470)	(0.1431)		(0.1116)	(0.0460)	(0.0826)
$Landlock_{ij}$	-2.1460***	-1.9753***		-1.6147***	0.8700	
	(0.5724)	(0.4667)		(0.4547)	(0.6255)	
$Religion_{ij}$	0.5776***	-0.1061		0.6076***	0.6787***	0.4688
	(0.1608)	(0.2490)		(0.1707)	(0.1319)	(0.3153)
N	1503	1327	1444	1321	1519	248
R^2	0.9567	0.9456	0.9943	0.8747	0.9554	0.9878

Robust standard errors in parentheses,* for $p < 0.10$, ** for $p < 0.05$, and *** for $p < 0.01$. Column 2 includes importer-year and exporter-year fixed effects. Column 3 includes importer-exporter and year fixed effects. In all other regressions, importer, exporter and year fixed effects are included. Column 4 employs OLS instead of PPML regression. Column 5 employs reporter's imports from the corresponding country as the dependent variable.

Table 4. Endogeneity check

	(1) Lagged attitude	(2) Average attitude	(3) Falsification test	(4) IV: 1939-(t-20)	(5) IV: 1914-(t-20)	(6) Validity check of the IV	(7)
Attitude-lag	0.0852**						
	(0.0404)						
Attitude-avg		0.0774***					
		(0.0267)					
Attitude Proxy			-0.1490				
			(0.3346)				
Attitude				2.4001***	1.4902***		0.0942**
				(0.5138)	(0.2940)		(0.0378)
War-count						-0.0088*	-0.0054
						(0.0053)	(0.0057)
$lnGDP_{it}$	0.5822***	0.6868***	0.7585***	0.9251***	0.9198***	0.4796***	0.4801***
	(0.0797)	(0.0418)	(0.1136)	(0.2240)	(0.1730)	(0.0761)	(0.0706)
$lnGDP_{jt}$	0.3456***	0.5855***	0.2576**	1.2204***	1.2607***	0.3698***	0.3965***
	(0.0929)	(0.0500)	(0.1076)	(0.3742)	(0.3363)	(0.0786)	(0.0781)
$lnDist_{ij}$	-0.6221***	-0.6371***	-0.7908***	-1.0139***	-0.8998***	-0.6015***	-0.6141***
	(0.0302)	(0.0146)	(0.0504)	(0.1172)	(0.0757)	(0.0293)	(0.0297)
$Contig_{ij}$	0.5923***	0.5343***	0.5006***	-0.0116	0.1990	0.6894***	0.6451***
	(0.0589)	(0.0309)	(0.1010)	(0.2017)	(0.1519)	(0.0524)	(0.0538)
$Comlang_{ij}$	0.2757***	0.2652***	0.5640***	0.4044**	0.4020***	0.2641***	0.2656***
	(0.0510)	(0.0321)	(0.1123)	(0.1789)	(0.1433)	(0.0494)	(0.0482)
$Landlock_{ij}$	-1.0582*	0.4753***	-1.8844***	-2.3097***	-1.6746**	-0.9544*	-1.0126*
	(0.5472)	(0.1346)	(0.5390)	(0.7589)	(0.6533)	(0.5745)	(0.5802)
$Religion_{ij}$	0.6086***	0.3036***	0.7433**	-1.3798***	-0.6147*	0.6417***	0.6162***
	(0.1818)	(0.0726)	(0.3341)	(0.4913)	(0.3497)	(0.1595)	(0.1595)
N	1230	6600	1315	1519	1519	1503	1503
R^2	0.9549	0.9454	-	-	-	0.9554	0.9566

Robust standard errors in parentheses of columns 1, 2, 6 and 7, and standard errors in parentheses of columns 3-5. *for $p < 0.10$, ** for $p < 0.05$, and *** for $p < 0.01$. In all regressions, importer, exporter and year fixed effects are included.

Table 5. Heterogeneous effects

	(1)	(2)	(3)
Dependent Variable	Capital goods	Intermediate goods	Consumer goods
Attitude	0.0105	0.0906**	0.2033***
	(0.0580)	(0.0407)	(0.0702)
$lnGDP_{it}$	0.2334	0.5355***	0.5481***
	(0.1423)	(0.0889)	(0.1395)
$lnGDP_{jt}$	0.5817***	0.5680***	0.2616**
	(0.1551)	(0.1197)	(0.1172)
$lnDist_{ij}$	-0.4255***	-0.5979***	-0.5622***
	(0.0429)	(0.0292)	(0.0448)
$Contig_{ij}$	0.7714***	0.8847***	0.7957***
	(0.0946)	(0.0710)	(0.1105)
$Comlang_{ij}$	0.3126***	0.2577***	0.1951**
	(0.0888)	(0.0620)	(0.0888)
$Landlock_{ij}$	-2.5367***	-2.3368***	-1.3189**
	(0.5820)	(0.4619)	(0.5559)
$Religion_{ij}$	0.5688*	0.7803***	0.5378**
	(0.3313)	(0.2586)	(0.2265)
N	640	640	640
R^2	0.9418	0.9732	0.9765

Robust standard errors in parentheses,* for $p < 0.10$, ** for $p < 0.05$, and *** for $p < 0.01$. In all regressions, importer, exporter and year fixed effects are included.

Table 6. Differential impacts of attitudes on imports by country groups

	(1)	(2)	(3)	(4)
Exporter	High	High	Non-High	Non-High
Importer	High	Non-High	High	Non-High
Attitude	0.1327*	0.1394**	-0.0389	0.4302***
	(0.0685)	(0.0586)	(0.0677)	(0.0862)
$\ln GDP_{it}$	0.7081***	0.3797***	0.5034***	0.4068***
	(0.1426)	(0.1016)	(0.1221)	(0.1230)
$\ln GDP_{jt}$	0.7623***	2.2907***	0.4130**	0.7010***
	(0.2542)	(0.7362)	(0.1696)	(0.2199)
$\ln Dist_{ij}$	-0.5862***	-0.6862***	-0.0035	-0.8535***
	(0.0458)	(0.0918)	(0.4713)	(0.0854)
$Contig_{ij}$	0.5606***	0.5269*	0.8100***	0.2970
	(0.0844)	(0.2762)	(0.2383)	(0.2121)
$Comlang_{ij}$	0.5531***	0.4492***	0.6477	0.2872
	(0.0827)	(0.1230)	(0.4970)	(0.2129)
$Landlock_{ij}$	0.6678***	-1.0739***	-2.2014***	-3.2267***
	(0.1279)	(0.2921)	(0.5549)	(0.5159)
$Religion_{ij}$	0.6010**	2.3729***	-1.8812	0.1306
	(0.2988)	(0.8375)	(1.1538)	(0.2433)
N	474	337	241	451
R^2	0.9648	0.9881	0.9981	0.9827

Robust standard errors in parentheses,* for $p < 0.10$, ** for $p < 0.05$, and *** for $p < 0.01$. In all regressions, importer, exporter and year fixed effects are included.

Table 7. The impact of attitudes on exports

	(1)	(2)	(3)	(4)
Attitude	0.1611***		0.3216***	0.7938***
	(0.0445)		(0.0795)	(0.2828)
Attitude-count		0.2527***		
		(0.0613)		
$lnGDP_{it}$	0.5122***	0.5125***		0.4842**
	(0.0793)	(0.0787)		(0.2379)
$lnGDP_{jt}$	0.6754***	0.6755***		0.5860***
	0.5122***	0.5125***		0.4842**
$lnDist_{ij}$	-0.6258***	-0.6303***	-0.6241***	-0.9797***
	(0.0320)	(0.0320)	(0.0591)	(0.0616)
$Contig_{ij}$	0.5710***	0.5713***	0.6067***	0.5382***
	(0.0692)	(0.0685)	(0.1096)	(0.1135)
$Comlang_{ij}$	0.3625***	0.3572***	0.3918***	0.4852***
	(0.0833)	(0.0834)	(0.1481)	(0.1401)
$Landlock_{ij}$	-3.9380***	-3.9492***	-2.0699***	-1.6247**
	(0.5960)	(0.5919)	(0.4860)	(0.7584)
$Religion_{ij}$	0.3215	0.3049	0.0085	-0.7259**
	(0.2359)	(0.2356)	(0.2944)	(0.3023)
N	1519	1519	1491	1519
R^2	0.9512	0.9517	0.9347	

Robust standard errors in parentheses except 4 in column 4 where they are standard errors. *for $p < 0.10$, ** for $p < 0.05$, and *** for $p < 0.01$. Column 3 includes importer-year and exporter-year fixed effects. In all other regressions, importer, exporter and year fixed effects are included. Column 4 reports the IV estimation result.

Table 8. The impact of attitudes on FDI

	(1)	(2)	(3)	(4)
Attitude	0.1356**		0.4001**	3.5899***
	(0.0687)		(0.1767)	(0.9066)
Attitude-count		0.2105**		
		(0.1026)		
$\ln GDP_{it}$	0.4964***	0.5083***		2.4996***
	(0.1682)	(0.1701)		(0.6555)
$\ln GDP_{jt}$	0.1849*	0.1861*		1.4032**
	(0.1033)	(0.1032)		(0.5828)
$\ln Dist_{ij}$	-0.6175***	-0.6208***	-0.5094***	-1.2540***
	(0.0484)	(0.0491)	(0.1193)	(0.2265)
$Contig_{ij}$	-0.3573***	-0.3524***	-0.1639	-0.7510*
	(0.1343)	(0.1308)	(0.2511)	(0.3841)
$Comlang_{ij}$	0.9501***	0.9457***	0.8280***	0.5751
	(0.0916)	(0.0905)	(0.2409)	(0.5572)
$Landlock_{ij}$	-0.0935	-0.0939	-6.2177***	-2.1352
	(1.1529)	(1.1545)	(0.8084)	(2.3724)
$Religion_{ij}$	1.9343***	1.9139***	0.5573	-0.8737
	(0.4407)	(0.4345)	(0.6808)	(0.6335)
N	727	727	723	743
R^2	0.9812	0.9811	0.9565	

Robust standard errors in parentheses except 4 in column 4 where they are standard errors. *for $p < 0.10$, ** for $p < 0.05$, and *** for $p < 0.01$. Column 3 includes importer-year and exporter-year fixed effects. In all other regressions, importer, exporter and year fixed effects are included. Column 4 reports the IV estimation result.