Do export promotion agencies increase exports?

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Do Export Promotion Agencies Increase Exports?

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Abstract

In this paper, we examine the role of export promotion agencies (EPAs) in promoting exports from Japan and Korea. Looking at two home countries enables us to tackle endogeneity issues by controlling for both country-pair time-invariant characteristics and importing country time-varying characteristics. Our empirical results indicate that the coefficients of the EPA dummy are similar in size to those of the FTA dummy. This implies that establishing an EPA office in a country is equivalent to signing an FTA with that country. In addition, we find that EPA's effects are larger for manufactured products than non-manufactured products. Finally, the EPA effect is larger for low income trade partners than for high income trade partners.

Keywords: Export promotion; FTA; Gravity model
JEL classification: F10, F13, F15

[§] The opinions expressed in this paper are the sole responsibility of the authors and do not reflect the views of the Japan External Trade Organization and the Korea Trade Investment Promotion Agency.

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1. Introduction

East Asia has been the fastest growing area in the world for a long time. In the 1990s, the high economic growth in the Newly Industrializing Economies (NIEs) of Hong Kong, Singapore, Korea, and Taiwan attracted much attention as models of economic development for other emerging countries (World Bank, 1993). A key factor behind the region's rapid growth and development is an outward-looking growth strategy, which increased its exports to the world. China's stunning rise as an economic superpower is the most recent and dramatic example of East Asia's successful export-led growth. China's spectacular transformation has been powered by an explosive growth of its exports, which surged from 52 billion US dollars in 1990 to 1,435 billion US dollars in 2008 (World Development Indicators).

To achieve export-led growth, many countries have established export promotion agencies (EPAs) whose objectives are to provide export support services such as exporter training program or information on trade finance and to match potential exporter and importer. The activities of governmental and semi-governmental EPAs can be justified by certain market failures.[1] For example, domestic firms may not know much about foreign markets, including consumer preferences and supplier networks – i.e. asymmetric information. Exporting requires firms to have enough knowledge about the market conditions of the target country. Although the pioneering exporter incurs fixed costs when it acquires information, its entry into the foreign market serves as a signal for other domestic firms – i.e. exporting to a particular country can be profitable. Therefore, if governmental EPAs are able to provide information about foreign markets to domestic firms, they can act as a catalyst in increasing exports.

There are a number of studies that evaluate the role of EPAs in promoting exports. These include Alvarez and Crespi (2000), Gil-Pareja et al. (2008), Lederman, Olarreaga, and Payton (2010), and Martincus and Carballo (2008). Those studies generally uncover a significant positive effect of export promotion on exports. Using plant level data from Chile, Alvarez and Crespi (2000) evaluate the impact of some public promotion instruments on the export sector, and find that promotion instruments are effective in increasing exports and markets. Applying the widely used gravity model, Gil-Pareja et al. (2008) show that Spanish regional trade agencies abroad increase Spanish exports. They also find that the estimated impact is larger than that of Spanish embassies and consulates. Using a unique firm-level dataset for Peru over the period

[1] See Lederman, Olarreaga, and Payton (2010).

2001-2005, Martincus and Carballo (2008) find that export promotion activities are associated with increased exports, both in terms of markets and products. In a study based on survey data covering 103 developed and developing countries, Lederman, et al. (2010) re-confirm the significant positive effect of export promotion agencies found in earlier studies.

A major difficulty in evaluating the role of EPAs lies in endogenetiy problems. For example, the Japanese government may decide to set up an EPA office in Thailand due to good political relationship or cultural similarities between Japan and Thailand. In addition, a general improvement in Thailand's economic environment would encourage foreign governments to establish EPA offices there. Omitting these country pair specific elements and host country specific elements creates biases in the estimators of ordinary least squares (OLS) method. Earlier studies mainly use the instrumental variable method to tackle this endogeneity issue. However, the instruments they use seem inappropriate and inadequate. For example, it is likely that geo-political and socio-economic variables not only influence the decision of the promotion agency to set up a branch in a particular country but also the level of trade with that country. Indeed the same variables are often included as explanatory variables in gravity models. The shortcomings of instruments in the empirical analysis of promotion agencies are analogous to those encountered in the analysis of free trade agreements (FTAs). As Baier and Bergstrand (2007) point out, most of the *available* instruments used in the empirical analysis of governmental institutions or agreements are less than fully convincing.

The purpose of this paper is to examine the effect of Japanese and Korean EPAs on the two countries' exports, while accounting for such endogeneity issues. The two EPAs are Japan External Trade Organization (JETRO) and Korea Trade Investment Promotion Agency (KOTRA). JETRO is a government-related organization that seeks to promote trade and investment between Japan and the rest of the world. Similarly, the goal of KOTRA is to facilitate trade and investment between Korea and other countries. Our use of two exporting countries – Japan and Korea – in the empirical analysis differs from existing studies which typically focus on a single country. Using two countries can significantly mitigate the above endogeneity problem. Unlike the analysis of a single exporting country, the analysis of two exporting countries enables us to control for the importing country's time-varying elements such as a general improvement in trade environment. Furthermore, as highlighted by Baier and Bergstrand (2007), the use of panel data enables us to control for not only time-variant importing country specific elements but

also time-invariant country-pair specific elements such as cultural similarity between two countries. The remaining source of endogeneity, namely simultaneity, is tackled by examining the effect of lagged EPA status on current exports. Doing so gives us econometrically more consistent estimates of the impact of EPAs on exports.

In addition, our focus on Japanese and Korean EPAs has another advantage. In addition to a similar mandate and mission, the two agencies share a number of other common features. In fact, Korea established KOTRA in 1962 in an effort to emulate JETRO and the two agencies have shared information and knowledge on a mutually beneficial basis. Overall, JETRO and KOTRA are quite similar in terms of their philosophy, organization and operations. Such similarity mitigates potential biases in the empirical analysis arising from heterogeneity among the agencies of different countries.

In addition to tackling endogeneity issues, our paper makes two additional contributions to the literature. First, we seek to investigate whether EPA has a differential impact on exports of manufactured products versus exports of non-manufactured products. Manufactured products are usually more specialized and differentiated than non-manufactured products. Therefore, since lack of market information is likely to be a more serious barrier for manufacturers than for non-manufacturers, the impact of EPA may be larger for the exports of manufactured products. Second, we examine those EPA effects separately for high income trade partners and low income trade partners. Uncertainty about market conditions is more serious in low income countries, which tend to have underdeveloped markets and institutions. We can thus expect the EPA to have a bigger impact on exports to low income countries than on exports to high income countries.[2] In sum, our analysis will help shed new light on exactly how EPAs influence the export performance of both manufacturers and non-manufacturers in both low income and high income markets, and thus allows us to have a more accurate understanding of the impact of EPAs on exports.

The rest of this paper is organized as follows. In Section 2, we describe the empirical framework we use to investigate the impact of EPA offices on exports. In Section 3, we report and discuss our main empirical results. Section 4 brings the paper to a close with some

[2] Moser, et al. (2008) employ an empirical trade gravity model, where they explicitly control for political risk in the importing country, in order to evaluate the effect of export guarantees. Using German public export credit guarantees data, they find a statistically and economically significant positive effect of public export guarantees on exports, which implies that export promotion is effective.

concluding observations.

2. Empirical Framework

In this section, we describe the empirical methodology and data we use to analyze the effect of JETRO and KOTRA on Japanese and Korean exports, respectively. Broadly speaking, we apply an empirical model which is a widely used standard tool for analyzing the effects of international organizations or FTAs on international trade, namely the gravity model, to our analysis.[3] The gravity equation is formalized as follows:

$$\ln \text{Exports}_{ij} = \beta_0 + \mathbf{X}_i \boldsymbol{\beta}_1 + \mathbf{X}_j \boldsymbol{\beta}_2 + \mathbf{t}_{ij} \boldsymbol{\beta}_3 + \varepsilon_{ij}.$$

where Exports_{ij} represents bilateral exports of country i to country j, $\mathbf{X}_i$ and $\mathbf{X}_j$ are a vector of exporting country-specific elements and a vector of importing country-specific elements, respectively, $\mathbf{t}_{ij}$ is a vector of country pair-specific elements, and ε is the disturbance term.

Explanatory variables in the traditional gravity models for trade include logs of exporting and importing countries' GDPs and log of the geographical distance between the two countries. The gravity equation now becomes:

$$\ln \text{Exports}_{ij} = \beta_0 + \beta_1 \ln \text{GDP}_i + \beta_2 \ln \text{GDP}_j + \beta_3 \ln \text{Distance}_{ij} + \varepsilon_{ij},$$

where $\ln \text{GDP}_i$ is log of exporting country i's GDP, $\ln \text{GDP}_j$ is log of importing country j's GDP, and Distance_{ij} is the geographical distance between home country i and host country j. The central objective of our analysis is to assess the impact of EPA on exports. Therefore, we introduce an EPA dummy variable, which takes the value of one if there is at least one EPA and zero otherwise, into the gravity equation. In addition, we include an FTA dummy - one for FTA partners and zero otherwise. In order to assess the lagged effects of EPA/FTA and/or to tackle possible simultaneity between exports and EPA/FTA, we use the value of the EPA/FTA dummy from the previous year. Adding subscript t for time, our first model can be re-written as:

$$\ln \text{Exports}_{ijt} = \beta_0 + \beta_1 \text{EPA}_{ijt-1} + \beta_2 \text{FTA}_{ijt-1} + \beta_3 \ln \text{Distance}_{ij}$$

[3] There are plenty of studies analyzing the effects of FTAs on trade. But many of the earlier studies do not adequately deal with the endogeneity issue, as pointed out by Baier and Bergstrand (2007). Also, there are a large number of papers that analyze the effects of international organizations. For example, some papers examine the impact of joining WTO on trade; Rose (2004a, 2004b, 2005a, 2005b), Engelbrecht and Pearce (2007), and Subramanian and Wei (2007). Rose (2004ab; 2005ab) find little evidence that countries joining or belonging to the GATT/WTO have very different trade patterns than outsiders. Engelbrecht and Pearce (2007) and Subramanian and Wei (2007) analyze the impacts of the WTO membership on agricultural trade and find a negatively significant impact.

$$+ \beta_4 \ln GDP_{it} + \beta_5 \ln GDP_{jt} + u_i + u_j + u_t + \varepsilon_{ijt}. \quad (1)$$

The presence of exporting-country EPA offices increases the availability of relevant information and knowledge about exporting to the importing country. A positive estimated coefficient of β_1 implies that the presence of EPA boosts exports by helping to reduce the costs of obtaining such information and knowledge.

However, in the context of evaluating the impact of EPA, this equation suffers from a number of problems. Above all, it suffers from a serious endogeneity problem – i.e. unobserved heterogeneity in export performance will be associated with the likelihood of EPA establishment. In particular, two factors may drive both exports and the establishment of EPA. The first has to do with time-varying host country effects. For example, EPA is more likely to set up offices in countries which are experiencing an improvement in the trade environment over time. At the same time, firms from the EPA's home country will find such countries more attractive and thus export more to those countries. Therefore, unless we control for such importing country specific effects, the disturbances are positively correlated with the EPA dummy. This positive correlation leads to overestimation of the EPA coefficient. The other source of endogeneity has to do with country pair specific effects. For example, JETRO is more likely to set up offices in importing countries with which Japan has a good relationship and close economic linkages. However, good relationship and close economic linkages also increase Japanese exports to the country even in the absence of JETRO. Again, the disturbance and EPA dummy are positively correlated, and the EPA coefficient will be overestimated.

The empirical analysis of FTA is subject to the same type of endogeneity issues so it would be useful to refer to that literature for possible solutions. In particular, Baier and Bergstrand (2007) take a close look at endogeneity in their analysis of the effect of FTAs on trade. Using instrumental variables is one way of dealing with endogeneity. Baier and Bergstrand try a wide array of economic and political instrument variables, but conclude that the instrument variable method is not reliable due to the lack of suitable instruments. The underlying reason is that, for the most part, the variables that are correlated cross-sectionally with the probability of two countries entering into an FTA are also correlated cross-sectionally with trade flows between the two countries. More accurate estimates of the impact of FTA can be obtained by using panel data with bilateral fixed effects. This estimation enables us to isolate the impact of FTA on bilateral trade from any time-invariant country pair specific effects, some of which are related with both

bilateral trade and probability of FTA.

Based on Baier and Bergstrand's insights, we account for the two sources of endogeneity by introducing various kinds of fixed effects. Our second model takes care of only biases arising from time-varying importer effects (and time-varying exporter effects) by introducing importer-year (and exporter-year) dummy variables:

$$\ln \text{Exports}_{ijt} = \beta_0 + \beta_1 \text{EPA}_{ijt-1} + \beta_2 \text{FTA}_{ijt-1} + \beta_3 \ln \text{Distance}_{ij} + u_{it} + u_{jt} + \varepsilon_{ijt}. \quad (2)$$

Due to perfect multi-colinearity with the new dummy variables, exporter and importer GDPs are dropped from the estimation equation. In this equation, we can also account for importers' and exporters' multilateral resistance terms (Anderson and van Wincoop, 2003).

The last model accounts for biases arising from both country pair specific effects and time-varying importer effects by including both importer/exporter time-variant dummy variables and country pair dummy variables as follows:

$$\ln \text{Exports}_{ijt} = \beta_0 + \beta_1 \text{EPA}_{ijt-1} + \beta_2 \text{FTA}_{ijt-1} + u_{ij} + u_{it} + u_{jt} + \varepsilon_{ijt}. \quad (3)$$

Due to the inclusion of country pair dummy variables, the geographical distance variable is also dropped from the estimation equation. As discussed above, this model is used to address endogeneity in the analysis of FTAs, and is expected to produce the most consistent estimators.

In our sample, Japan and Korea are the exporting countries. Our sample of importers consists of 105 countries and is listed in Table 1. The sample period is 1980-2009. Exports are taken from UN Comtrade database and geographical distance is from the CEPII website. The data on GDP are obtained from the World Bank's World Development Indicators. We construct FTA dummy by using a list of FTAs provided on the WTO website. Our FTA dummy includes FTAs notified based on not only the GATT Article XXIV but also the Enabling Clause. Since FTA dummy is one-year lagged, those entering into force by the end of 2008 are included. In 2008, for example, Japan and Korea have nine and seven FTAs, respectively. Their details are provided in Appendix 1.

=== Table 1 ===

The information for constructing the EPA dummy can be obtained from JETRO (1973, 2000, 2008), KOTRA (2002), and KOTRA website (Accessed in Apr. 10, 2010). The numbers of JETRO and KOTRA offices are reported in Table 1. There are three noteworthy points. First, both JETRO and KOTRA have a relatively large number of offices in the US and China. In

particular, KOTRA have nine offices in both US and China. Second, with the single exception of Costa Rica, KOTRA has offices in all countries in which JETRO has offices. Third, KOTRA has offices in a number of countries where JETRO does not have a presence. In particular, KOTRA has a greater presence in the Middle East and North Africa than JETRO.

There is one further relevant empirical issue. In the recent gravity model literature, how to deal with zero-valued trade has been a hot issue. The approach adopted in the recent literature for addressing this issue is to use the method proposed by Silva and Tenreyro (2006) or Helpman, Melitz, and Rubinstein (2008). While the former involves a pseudo Poisson maximum likelihood technique, the latter is an extension of the Heckman two-step estimation. In this paper, we address the issue of zero-valued trade as follows. In order to exactly include the above mentioned pair fixed effects, we drop country pairs without any trade from all sample years because their trade values can be completely explained by the corresponding pair dummy. Similarly, to include the time-variant importer and exporter fixed effects, we exclude a country in years it does not import from both Japan and Korea. As a result, the remaining zero-valued trade can be found only in countries which import from Japan but not from Korea or vice versa. However, since such observations make up less than one percent of total number of observations, we simply drop those observations. As a result, our sample consists of observations with positive trade values.

3. Empirical Results

In this section, we report and discuss the main results which emerge from the empirical analysis described in the previous section. We first report the results of baseline estimation which does not address the endogeneity problem and then the results of estimation which addresses endogeneity in the manner described above. Finally, we perform some additional analysis on the impact of EPA by dividing our sample into manufacturing and non-manufacturing exporters and into high income and low income importing countries.

3.1 Baseline Results

The result for equation (1), which does not address the endogeneity problem, is reported in column (I) of Table 2. The standard gravity variables have the expected signs – i.e. the estimated coefficients for exporting country and importing country GDPs are significantly positive, and the estimated coefficient of distance is significantly negative. The estimated coefficient for the EPA

dummy, our key variable of interest, is significant and positive. The EPA dummy takes the value of one if the importing country hosts at least one EPA office and zero otherwise. This result indicates that the presence of a home-country EPA increases the home-country's exports to the country by 49% (=exp(0.401)-1). Strikingly, the estimated coefficient of the EPA dummy is similar in size to that of the FTA dummy (57%), implying that the export promotion effect of establishing an EPA office in a country is equivalent to signing an FTA.

=== Table 2 ===

We perform some additional analysis to further explore the effects of EPA. First, we allow for longer lagged effects of EPA. In the above estimation, we examined one-year lagged effects of EPA. However, it may take a longer time for firms to respond to the establishment of a new EPA office in a country. In order to address this possibility, we introduce a three-year lagged EPA dummy variable. The results are reported in columns (II). The EPA dummy remains significant and positive. Comparing the magnitude of the coefficients of the EPA dummy in columns (I) and (II) suggests that the effect of EPA declines over time. Second, we experiment with the number of EPA offices, rather than a dummy variable for whether there is at least one EPA, as the explanatory variable.[4] The results for this exercise are reported in column (III). The estimated coefficient for the number of EPA offices is significant and positive, indicating that the home country is likely to export to the countries with a larger number of EPA offices. More specifically, a 10% increase in the number of home-country EPA offices in a country leads to a 5.1% increase in exports to the country.

3.2 Consistent Estimators

The columns of Model (2) report the estimation results of equation (2), i.e. the model which accounts for biases from unobservable importer and exporter effects by introducing time-varying importer and exporter dummy variables. The results are qualitatively the same as those in Model (1). EPA dummies and the number of EPA offices remain significant and positive. The amount of home-country exports rises by 59% when there is at least one home-country EPA office. Furthermore, a 10% increase in the number of EPA offices in a country leads to 5.9% increase in exports to that country. As in the baseline case, the magnitude of the estimated

[4] We add one before taking a log.

coefficient for the EPA dummies becomes smaller with a longer time lag.

The results for the estimation of equation (3) are reported in columns of Model (3). This equation, which is our preferred specification, accounts for biases from not only unobservable importer and exporter effects but also unobservable country pair fixed effects. The magnitude of all estimated EPA coefficients becomes significantly smaller than in Models (1) and (2). Specifically, when we take into account country-pair fixed effects as well as both importer and exporter time-varying fixed effects, we find that the establishment of an EPA office increases the amount of exports by 32%. This is substantially smaller than the estimated effects from the models which do not address endogeneity or address it only partially. Therefore, as predicted earlier, failure to control for endogeneity biases from unobservable country pair fixed effects and time-varying importing country/exporting country effects leads to overestimation of the IPA coefficients.

It is interesting to note that the coefficient of the FTA dummy also becomes smaller, in line with previous studies such as Baier and Bergstrand (2007). Comparing the magnitude of the estimated coefficients of FTA dummy and EPA dummy, we find that an FTA between Japan (or Korea) with a country increases exports from Japan (or Korea) to the FTA partner by 40%, which is not so different from the effect of EPA. Therefore, we conclude that the export promotion effect of establishing an EPA office in a country is almost equivalent to signing an FTA with that country.

3.3 Some Additional Analysis

In this subsection, we report the results of some additional analysis of the impact of EPA on exports. The first analysis is to estimate the above model separately for manufacturing exports and non-manufacturing exports. Greater product differentiation of manufactured products relative to non-manufactured products implies a more serious information asymmetry problem for manufactured products exporters This implies that the positive effect of EPA and its information-producing activities may be larger for manufactured products. The estimation results are reported in Table 3. We only report the results for Model (3), i.e. our most preferred specification. The estimated coefficients for EPA and FTA are significantly positive in all of the three different specifications for both manufacturing exports, but only in Column II for non-manufacturing exports. This suggests that in line with our expectations, the establishment of EPA

offices is more effective in promoting exports of manufacturing products than non-manufacturing products.

=== Table 3 ===

Next, we group importing countries according to their income levels. Specifically, following World Bank classifications of income, we separately estimate the above equations for high income importers and low income importers. Due to underdeveloped markets and institutions, there is greater uncertainty about market conditions in low income countries. Therefore, the impact of EPA is expected to be larger for exports to low income countries. The results are reported in Table 4. We again only report the estimation results of model (3) which addresses both types of endogeneity biases. Comparing the results for all exports – both manufactured and non-manufactured – to high-income countries and low-income countries, we find that the effects of EPA on exports are larger for exporting to low-income countries, particularly for the number of EPA offices. Similarly, when we examine exports of manufactured and non-manufactured products separately, the effect of EPA is consistently larger for exporting to low income countries. Although it is somewhat puzzling that the effect of EPA is significantly negative for exporting non-manufactured products to high income countries, it remains the case that the positive effect of EPA is more significant for exports to low income countries.[5]

=== Table 4 ===

4. Concluding Observations

Governmental and semi-governmental agencies have long been active in promoting exports. This is because exports have traditionally been viewed as beneficial for growth and development. In fact, a large number of countries, especially in East Asia, have relied on exports to fuel rapid growth. Against this background, many empirical studies have attempted to evaluate the effectiveness of governmental agencies in promoting exports. By and large, the balance of

[5] We do not appraise the negative results importantly in FTA for high income importers because there are only a small number of high income FTA partners in our sample.

evidence from those studies indicates that governmental export promotion has been effective in boosting exports.

At a broader level, our primary contribution to the empirical literature on the role of governmental and semi-governmental agencies in promoting exports is that we seek to address the endogeneity problem inherent in analyzing the effect of governmental institutions or agreements on international business activities. We do so by using panel data from two exporting countries. Specifically, we delve into the impact of JETRO and KOTRA on Japanese and Korean exports, respectively, for the period of 1980 – 2009. Using data from two countries rather than one allows us to control for both country pair time-invariant characteristics and host country time-varying characteristics.

Our empirical results strongly confirm the importance of addressing the endogeneity problem in accurately measuring the impact of EPAs on exports. In the baseline case, which assumes away the problem and does nothing to mitigate it, we find a significant positive effect of EPAs on exports. That is, our results suggest that JETRO's presence in the importing country has a positive impact on Japan's exports to that country and likewise for KOTRA's presence. When we take the intermediate approach of addressing only one source of endogeneity – biases from unobservable importing (and exporting) country effects – the results are qualitatively the same as in the baseline case. However, the estimated effect of the EPA dummy variable becomes smaller when we address both sources of endogeneity – both unobservable importing (and exporting) country effects *and* unobservable country pair effects. Our results thus underline the importance of addressing endogeneity in the empirical analysis of governmental promotion of exports. Failure to do so will overstate the impact of governmental or semi-governmental agencies on exports.

In addition to alerting us to the need to address endogeneity, our empirical analysis yields a couple of interesting and significant additional findings. One striking result is that the coefficients of the EPA dummy are similar in size to those of the FTA dummy, implying that the export promotion effect of establishing an EPA office in a country is equivalent to signing an FTA with that country. Furthermore, when we divide our sample into manufacturing and non-manufacturing exports, we find that EPA is more effective in promoting manufacturing exports. Finally, we find that the effect of EPA is larger for exports to low income countries than for exports to high income countries.

Our findings entail a number of policy implications. The quantitatively similar effects of EPA and FTA indicate that it may be more cost efficient for policy makers to set up branches of export promotion agency than to try to conclude an FTA. Concluding an FTA is often a protracted and difficult process which requires extensive negotiation with the prospective partner country as well as domestic interest groups. Compared with such potentially large costs, the establishment of EPA offices is likely to be cheaper. Therefore, if the primary purpose of an FTA is to promote exports, setting up EPA offices may be more efficient. Furthermore, since we find that EPA is more effective for promoting exports of manufacturing products, it may be productive to prioritize the establishment of EPAs in countries to which the home country exports a lot of manufactured products. For similar reasons, countries may consider prioritizing low income countries as the locations for EPA offices.

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Appendix. FTAs Included in the Sample

Country	FTA name	Date of entry into force
Japan		
	ASEAN - Japan	1-Dec-08
	Brunei Darussalam - Japan	31-Jul-08
	Chile - Japan	3-Sep-07
	Japan - Indonesia	1-Jul-08
	Japan - Malaysia	13-Jul-06
	Japan - Mexico	1-Apr-05
	Japan - Philippines	11-Dec-08
	Japan - Singapore	30-Nov-02
	Japan - Thailand	1-Nov-07
Korea		
	Korea, Republic of - Chile	1-Apr-04
	Korea, Republic of - Singapore	2-Mar-06
	EFTA - Korea, Republic of	1-Sep-06
	Asia Pacific Trade Agreement	17-Jun-76
	Asia Pacific Trade Agreement - Accession of China	1-Jan-02
	Global System of Trade Preferences among Developing Countries	19-Apr-89
	Protocol on Trade Negotiations	11-Feb-73

Source: WTO Website

Table 1. Number of JETRO and KOTRA Overseas Offices in Our Sample Countries: 2008

Countries	Japan	Korea	Countries	Japan	Korea
High income			Latin America & Caribbean		
Australia	2	2	Argentina	1	1
Austria	1	1	Bolivia	0	0
Belgium and Luxembourg	1	1	Brazil	1	1
Canada	2	2	Chile	1	1
Croatia	0	1	Colombia	1	1
Czech Republic	1	1	Costa Rica	1	0
Denmark	1	1	Dominican Republic	0	1
Estonia	0	0	Ecuador	0	0
Finland	1	1	El Salvador	0	0
France	1	1	Grenada	0	0
Germany	3	4	Guatemala	0	1
Greece	0	1	Honduras	0	0
Hungary	1	1	Jamaica	0	0
Iceland	0	0	Mexico	1	1
Ireland	0	1	Nicaragua	0	0
Israel	1	1	Panama	1	1
Italy	1	1	Paraguay	0	0
Japan	n.a.	4	Peru	1	1
Korea	1	n.a.	Saint Vincent and the Grenadines	0	0
Latvia	0	0	Uruguay	0	1
Luxembourg	0	0	Venezuela	1	1
Netherlands	1	1	Middle East & North Africa		
New Zealand	1	1	Algeria	0	1
Norway	0	1	Djibouti	0	0
Portugal	0	0	Jordan	0	1
Saudi Arabia	1	1	Lebanon	0	1
Singapore	1	1	Morocco	0	1
Slovenia	0	0	Tunisia	0	0
Spain	1	1	Yemen	0	0
Sweden	1	1	South Asia		
Trinidad and Tobago	0	0	Bhutan	0	0
United Kingdom	1	1	India	3	2
United States of America	6	9	Nepal	0	0
East Asia & Pacific			Pakistan	1	1
China	5	9	Sri Lanka	1	1
Fiji	0	0	Sub-Saharan Africa		
Indonesia	1	1	Botswana	0	0
Kiribati	0	0	Burkina Faso	0	0
Malaysia	1	1	Burundi	0	0
Philippines	1	1	Cape Verde	0	0
Samoa	0	0	Cote d'Ivoire	0	0
Thailand	1	1	Ethiopia	0	0
Europe & Central Asia			Gambia	0	0
Albania	0	0	Kenya	1	1
Armenia	0	0	Madagascar	0	0
Azerbaijan	0	1	Malawi	0	0
Bulgaria	0	0	Mauritius	0	0
Kazakstan	0	1	Mozambique	0	0
Kyrgyzstan	0	0	Nigeria	1	1
Lithuania	0	0	Rwanda	0	0
Macedonia (the former Yugoslav Rep. of)	0	0	Senegal	0	0
Moldova, Rep.of	0	0	South Africa	1	1
Romania	1	1	Sudan	0	1
Russian Federation	2	3	Tanzania, United Rep. of	0	0
Turkey	1	2	Zambia	0	0

Sources: JETRO (1973, 2000, 2008), KOTRA (2002), KOTRA website (Accessed in Apr. 10, 2010)

Table 2. Baseline Results

	Model (1)			Model (2)			Model (3)		
	(I)	(II)	(III)	(I)	(II)	(III)	(I)	(II)	(III)
Agency (t-1)	0.401***			0.467***			0.275***		
	[0.044]			[0.049]			[0.068]		
Agency (t-3)		0.337***			0.422***			0.194***	
		[0.042]			[0.048]			[0.061]	
Number (t-1)			0.513***			0.585***			0.423***
			[0.061]			[0.067]			[0.093]
FTA (t-1)	0.450***	0.453***	0.440***	0.376***	0.384***	0.367***	0.337***	0.353***	0.326***
	[0.039]	[0.039]	[0.039]	[0.038]	[0.039]	[0.038]	[0.088]	[0.090]	[0.088]
Distance	-2.225***	-2.217***	-2.122***	-2.076***	-2.073***	-1.957***			
	[0.199]	[0.199]	[0.192]	[0.206]	[0.207]	[0.206]			
Importer GDP	1.015***	1.022***	1.001***						
	[0.053]	[0.053]	[0.053]						
Exporter GDP	1.279***	1.280***	1.269***						
	[0.048]	[0.048]	[0.048]						
Exporter	YES	YES	YES	NO	NO	NO	NO	NO	NO
Importer	YES	YES	YES	NO	NO	NO	NO	NO	NO
Year	YES	YES	YES	NO	NO	NO	NO	NO	NO
Exporter * Year	NO	NO	NO	YES	YES	YES	YES	YES	YES
Importer * Year	NO	NO	NO	YES	YES	YES	YES	YES	YES
Pair	NO	NO	NO	NO	NO	NO	YES	YES	YES
Observations	6,612	6,612	6,612	6,684	6,684	6,684	6,684	6,684	6,684
R-squared	0.9287	0.9284	0.9286	0.9648	0.9646	0.9646	0.9814	0.9814	0.9815

Notes: ***, **, and * show 1%, 5%, and 10% significance, respectively. In parenthesis is a standard error.

Table 3. Estimation Results: Manufacturing Industries versus Non-manufacturing Industries

	Manufacturing Industries			Non-Manufacturing Industries		
	(I)	(II)	(III)	(I)	(II)	(III)
Agency (t-1)	0.306***			0.109		
	[0.079]			[0.091]		
Agency (t-3)		0.206***			0.196**	
		[0.071]			[0.088]	
Number (t-1)			0.476***			0.16
			[0.106]			[0.121]
FTA (t-1)	0.388***	0.406***	0.375***	0.443***	0.434***	0.439***
	[0.100]	[0.102]	[0.100]	[0.115]	[0.117]	[0.116]
Exporter * Year	YES	YES	YES	YES	YES	YES
Importer * Year	YES	YES	YES	YES	YES	YES
Pair	YES	YES	YES	YES	YES	YES
Observations	6,678	6,678	6,678	6,458	6,458	6,458
R-squared	0.9793	0.9792	0.9794	0.9626	0.9627	0.9626

Notes: ***, **, and * show 1%, 5%, and 10% significance, respectively. In parenthesis is a standard error.

Table 4. Estimation Results: High Income Importers versus Low Income Importers

	All Industries		Manufacturing		Non-Manufacturing	
	(I)	(II)	(III)	(IV)	(V)	(VI)
High Income Importers						
Agency (t-1)	0.263**		0.269**		-0.201*	
	[0.107]		[0.108]		[0.106]	
Number (t-1)		0.312**		0.321**		-0.227*
		[0.129]		[0.131]		[0.132]
FTA (t-1)	-0.210**	-0.219**	-0.228**	-0.238**	0.020	0.026
	[0.100]	[0.102]	[0.104]	[0.106]	[0.118]	[0.117]
Observations	2,282	2,282	2,282	2,282	2,278	2,278
R-squared	0.9871	0.987	0.9857	0.9857	0.9828	0.9828
Low Income Importers						
Agency (t-1)	0.270***		0.323***		0.210*	
	[0.087]		[0.105]		[0.112]	
Number (t-1)		0.471***		0.551***		0.332**
		[0.125]		[0.146]		[0.153]
FTA (t-1)	0.352***	0.336***	0.424***	0.406***	0.201	0.192
	[0.107]	[0.107]	[0.121]	[0.121]	[0.141]	[0.142]
Observations	4,402	4,402	4,396	4,396	4,180	4,180
R-squared	0.974	0.9741	0.9709	0.9710	0.9517	0.9517
Exporter * Year	YES	YES	YES	YES	YES	YES
Importer * Year	YES	YES	YES	YES	YES	YES
Pair	YES	YES	YES	YES	YES	YES

Notes: ***, **, and * show 1%, 5%, and 10% significance, respectively. In parenthesis is a standard error.