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Trading Effects of the National Teams' Showcase

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Abstract

This study analyzes the trading effects of FIFA World Cup in two dimensions. First, focusing on the host countries' trade and estimating both static OLS and dynamic panel estimations, we show that participating in the World Cup significantly increases exports from the participant countries to the host countries, relative to a control group of non-participants. We also obtain the same pattern for the exports originating from the host countries to the participants. Second, we demonstrate that trade is reasonably higher for host-participant pairs compared to other country pairs both in the years of the World Cup and permanently over the sample of our data. We offer a number of plausible arguments and important channels for our findings.

JEL Classification: F19, L83

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1. Introduction

At the 2004 conference of the joint Turkish and Korean business council, Park Won-jin, the chairman of the Korean-Turkish Business Council, stressed the importance of the 2002 World Cup in Korea on the swelling of bilateral trade between the two countries. It was Turkey's first World Cup appearance since 1948 and they won the bronze medal after an entertaining victory over Korea. Shortly thereafter, bilateral trade between these countries leapt to a sum of one billion dollars, which represents a 20-percent increase from the previous year. There was another 32-percent increase, with bilateral trade reaching more than 1.3 billion dollars in 2004. Is the argument raised by Park Won-jin historically relevant? Does the World Cup promote trade between the host and participant countries? To our knowledge, this is the first paper to address this question empirically.

The World Cup is the most widely followed *mega-sport* event in the world. Unlike the Olympic Games, national teams face a tough competition in order to qualify for the tournament, which produces a single winner in a single sport. As opposed to the one-month period of the actual tournament, the qualification stage takes two years and a total of approximately 200 nations compete in around 800 games to qualify for the 32 spots in the tournament.[1] Although much lower than the cost of hosting the World Cup, national teams still have to spend significant amounts of money to qualify for the tournament. Costs include hiring a good manager, scouting for alternative players, and improving domestic sports facilities for the preliminary games. Countries do not want to miss the world's soccer feast and wait another four years because being in the competition brings a number of benefits to the country. In this paper, we investigate one dimension of these benefits, an improved trading relationship between the host and participant countries.

Our empirical results suggest that the World Cup significantly increases the exports/imports of the host countries to/from the participant countries relative to non-

[1] Baade and Matheson (2004).

participants and that the host-participant pairs have higher trade with each other compared to other country pairs.

The first plausible argument for our findings is the increase in visibility and exposure. Mega sporting events bring important advertising, which increases the ability of both the host and the participant countries to influence each other's consumers. One consequence of this influence is that it improves the awareness of their products, allowing these countries easier access to each other's markets.[2]

Secondly, the World Cup attracts significant numbers of tourists from the participant countries to the host country. Although the main purpose of these travels is to attend the games, it can also work as an important mechanism to start, build, and improve trading networks for businessmen. In addition, potential visitors might be attracted to the venues after the tournament due to their exposure during the games.[3] As noted in Poole (2010), international travel helps buyers and sellers transfer information about local culture, customs, and markets, creating an efficient business relationship.[4] Therefore, the World Cup can help the host and participant countries to attenuate the informational and cultural barriers to trade.

Although the channels described above can be defined as the major mechanisms that explain the trading effects of the World Cup, one can also note other arguments. For instance, Rose and Spiegel (2011) point out that the hosting of large sporting events can work as a signal for trade liberalization and increase countries' openness significantly. Following the same line of argument, the World Cup can also contribute to the negotiations of trade liberalization between the host and participant countries.[5]

[2] See Preuss (2004).
[3] See Rose and Spiegel (2011).
[4] There is a growing literature about the effect of international travels on trade. [Including, but not limited to, Kulendran and Wilson (2000), Aradhyula and Tronstad (2003), Poole (2010), Christea (2011)].
[5] Two examples in this category are the formation of North American Free Trade Agreement (NAFTA), which coincides with the 1994 World Cup, held in the U.S., and Turkey's entry to the European Free

In addition, foreign business organizations in both countries may have easier access to policy makers to lobby for lower protection and reduced bureaucracy and procedures because of the World Cup. Therefore, larger sports events may also work as an important channel to decrease the bilateral trading costs and thus contribute to the trade between the host and the participant countries.

This study fits into the literature that examines the effect of mega sports events on economic activity. Generally, the primary focus in this literature is the cost and benefits associated with hosting mega sports events. For instance, Hagn and Meannig (2008) have demonstrated that the World Cup has almost no effect on the unemployment in the match venues, which is in line with the results of a number of works, particularly those of Baade and Matheson (2000 and 2001, 2004) and Carlino and Coulson (2004). Among these, Baade and Matheson (2001) provide estimates for the economic impacts of Major League Baseball (MLB) by examining the data for the 23 All-Star games during the period of 1973 through 1997. Their analysis reveals that All-Star Game cities had employment growth below that which would have been expected. On the other hand, Lee and Taylor (2005) show that the 2002 World Cup provided major economic benefits to South Korea. According to Plessis and Venter (2010), the immediate impact of the World Cup 2010 on the South African economy was around 0.1% of the GDP. Similarly, Ahlert (2007) estimates the potential, national and regional economic effects on the German economy because it hosted the 2006 World Cup. His results indicate a positive overall effect on GDP, private consumption, and investment.

Our paper most closely complements the earlier work by Rose and Spiegel (2011), which examines the trading effects of hosting the Olympics. Their results suggest that trade is over 20 percent higher for the host countries, and unsuccessful bids to host the Olympics also have a similar impact on exports. For the first time in

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Trade area, which coincides with the 1996 European Championship (Regional version of World Cup) in England.

the literature, our focus is on the relationship between the host-participant pairs, rather than the effect of the large sporting events on the host country itself.

The remainder of the paper is organized as follows. In the next section, we describe the data. Section 3 includes the empirical specification and the results. Section 4 provides a brief conclusion.

2. Data

We obtained the trade data and the other country level variables from Rose and Spiegel (2011).[6] For the trade data that is not recorded in their dataset, we utilized the *IMF Direction of Trade Statistics*.[7] For the World Trade Organization (WTO) membership, we utilized the WTO website. Finally, the data on the hosts and the participants of the World Cup were obtained from the website of FIFA (*Fédération Internationale de Football Association).*

Our sample includes bilateral observations for the periods between 1950 and 2006 for 196 countries. Table A1 shows the host countries for each World Cup and the corresponding participants.

3. Empirical Specification

3.1. Exports to/from the Host Countries : Participants vs. Non-participants

Pooled OLS Estimation

We started our empirical specification by analyzing the effect of the World Cup on the trade flows of the participant countries to/from the host countries, relative to nonparticipants. To do so, we pooled our bilateral trade data over World Cup host and year combinations and employed the "gravity" model of international trade, which

[6]See http://faculty.haas.berkeley.edu/arose/RecRes.htm (We appreciate their generosity.)
[7] Rose and Spiegel (2011)'s data have the export values (X_{ij}) from country *i* to *j*. For the export values from *j* to *i*, we constructed our own data.

is extensively used to estimate the bilateral trade flows between paired countries. The following equation is estimated by OLS[8]:

$$ln(X_{ijt}) = \beta_0 + \beta_1 ln(X_{ijt-1}) + \beta_2 ln(pop_{it}) + \beta_3 ln(pop_{jt}) + \beta_4 ln(GDPpc_{it}) + \beta_5 ln(GDPpc_{jt}) + \beta_6 Common\ Language_{ij} + \beta_7 RTA_{ijt} + \beta_8 Common\ Border_{ij} + \beta_9 Islands_{ij} + \beta_{10} WTO_{ijt} + \beta_{11} Area_{ij} + \beta_{12} Colony_{ij} + \beta_{13} Landlocked_{ij} + \beta_{14} ln(D_{ij}) + \theta_1 Participant_{jt} + \varepsilon_{ijt} \quad (1)$$

where *i* denotes the World Cup host, *j* denotes the exporter country, *t* is the year of the tournament, X_{ijt} denotes the exports from *j* to the host countries, *pop* denotes population, *GDPpc* is the annual real GDP per capita. *Common Language* and *Common Border* take a value of 1 if the country pairs share the same language and the same land border respectively. *Area* is the log of the areas of the countries. *RTA* is a binary indicator and is unity if the countries have a regional trade agreement. *Island* is the number of island countries; *WTO* is the number of WTO members; and *Landlocked* is the number of landlocked countries in the pair. *Colony* is a binary indicator and is equal to 1 if the country pairs have colonial ties. D_{ij} denotes the distance between *i* and *j*. In addition, we also added the lagged value of the dependent variable to capture the effect of historical factors on current trade.[9]

The variable of interest in (1) is $Participant_{jt}$, which takes a value of 1 if the country *j* is qualified to the particular World Cup held in country *i.* Since we pooled the data for World Cup host and year combinations, we interpret the coefficient of this variable as the increase in the exports of the participant countries to the host countries relative to the control group of nonparticipants.

Table 1 reports the coefficient estimates obtained from equation (1). Since the year dummies control for the invariant host country specific variables when we pool the data over World Cup host and year combinations, specifications in Table 3 do not

[8]Although hosting the World Cup may be thought as endogenous, participating to the tournament is exogenous. Therefore, OLS is not biased.

[9]See Eichengreen & Irwin, 1997; Bun & Klaassen, 2002; De Grauwe & Skudelny, 2000; Vandenbussche & Zanardi, 2010.

include the GDP and the population of the host country.[10] To save space, we do not discuss the coefficients of the standard gravity controls as they are not of particular interest. Consider the first column in Table 3; the estimate of θ is positive and statistically significant. In terms of the magnitude of the effect, participating in the World Cup increases exports to the host countries by 17 percent, relative to a control group of non-participant countries.[11] In columns 2 to 6, we carry out a number of experiments which were suggested by Rose and Spiegel (2011). For instance, one could argue that the results obtained in specification 1 might be particularly driven by the trading effects of the World Cup in a specific region. For this consideration, we removed the observations where country *j* is a Latin American Country, an African country, and a Middle Eastern Country in specifications 2, 3 and 4 respectively. Moreover, we also dropped the observations for the poor exporters (those with real GDP per capita less than $1000 per annum) in specification 5. Finally, we removed the 2.5 standard deviation outlier observations in specification 6. As documented, the coefficient θ is still positive and significant although slightly different in magnitude. Therefore, our estimates do not result from some small subset of the data.

Table 2 reports the estimates when the dependent variable is replaced by exports from the host countries to country *j* and the first right-hand side variable becomes its lagged value. Similarly, we obtain a significant coefficient for the participant dummy.

As a result, the World Cup does not only contribute to exports from the participating countries to the hosts, but also to exports originating in host countries and being exported to participant countries. The World Cup increased the host countries' exports to participant countries by 13 percent when compared to the nonparticipant countries. This effect is significant and robust to the set of experiments discussed earlier.

[10] In our pooled OLS estimation, year dummies are equivalent to World Cup host dummies.

[11] We use the formula used by Kennedy (1981) to convert the coefficient of the dummy variable to its true marginal effect.

Dynamic Specification (Permanent Effect)

We also estimate the effect of the World Cup on the trade flows of participant countries to/from the host countries, relative to a control group of nonparticipants using panel data.

We employ the following specification:

$$ln(X_{ijt}) = \beta_0 + \beta_1 ln(X_{ijt-1}) + \beta_2 ln(pop_{it}) + \beta_3 ln(pop_{jt}) + \beta_4 ln(GDPpc_{it}) + \beta_5 ln(GDPpc_{jt}) + \beta_6 WTO_{ijt} + \beta_7 RTA_{ijt} + \theta_2 Participant_{jt} + \varepsilon_{ijt} + \mu_{ijt} \quad (2)$$

where i denotes the World Cup host, j denotes the exporter country, and μ_{ijt} denotes country-pair fixed effects. There are three differences in this specification when compared to equation (1). First, t denotes the time period between 1950 and 2006. Second, following Rose and Spiegel (2011), our variable of interest takes on a value of 1 at or before time t, which is interpreted as the permanent effect of the tournament on the trade between host and participant countries. Further, since country-pair fixed effects control for all time-invariant factors, we do not include them in (2), as opposed to (1).

A serious problem in estimating (2) is the serial correlation in the export series which would bias the OLS estimates. We therefore apply instrumental variable (IV) estimation where the second lag of the dependent variable is used as an instrument.[12] To address the concern of weak instruments, we tested the quality of our instrument. The *F-test* obtained in the first stage confirmed the validity of our instrument.[13]

The estimation results obtained from equation (2) are reported in Table 3. As shown, the dynamic estimation provided smaller estimates for most of the control variables as opposed to the static OLS estimation reported in Table 1. In addition, the permanent effect of the World Cup on the exports from the participant countries to the

[12] Vandenbussche and Zanardi (2010).
[13] The first stage estimates are reported in Table A2.

host countries also decreased as compared to the static estimation, which provided the temporary short-run effect. To gauge the economic effect, consider specification (1) in Table 2. Countries that qualified to the World Cup finals exported 9 percent higher to the host countries, relative to a control group of non-participants. Similar to the earlier section, we also check the robustness of our results in the next specifications of Table 3. As documented, our results are insensitive to all of the robustness checks described earlier.

In Table 4, we replaced the exports to the host countries with exports from the host countries. Again, our estimates suggest that host countries exported more to the participant countries than to non-participant countries. The magnitude of the estimates is similar to those documented in Table 3.

3.2. Trading Effects of the World Cup: Host-participant pairs vs. Other Countries

Pooled OLS Estimation

Having analyzed the participant countries' exports to/from host countries relative to a control group of non-participant countries, we turn to the trading effects of the World Cup for the host-participant pairs relative to all other country pairs.[14] Hence, we pooled the bilateral trade data over World Cup years to estimate the following model via OLS:

$$ln(X_{ijt}) = \beta_0 + \beta_1 ln(X_{ijt-1}) + \beta_2 ln(pop_{it}) + \beta_3 ln(pop_{jt}) + \beta_4 ln(GDPpc_{it}) + \beta_5 ln(GDPpc_{jt}) + \beta_6 WTO_{ijt} + \beta_7 RTA_{ijt} + \theta_3 Participant_{ijt} + \varepsilon_{ijt} + \mu_{ijt} \quad (3)$$

where *i* denotes the importer and *j* denotes the exporter, and *t* denotes the years in which there was a World Cup (1950, 54, 58….2006). $Participant_{ijt}$ is unity if country *j*

[14] Note that other country pairs include host countries and non-participants, and participants and non-hosts.

participated in the World Cup organized in country *i* in year *t*. μ_{ijt} denotes country-pair fixed effects. [15]

We document the estimation results of (3) in Table 5. Table 6 also shows the results when the dependent variable is the exports from *i* to *j*. Similar to earlier estimates, we obtain positive and significant estimates for the variable of interest. Economically speaking, in the years of the World Cup, trade is 15-20 percent higher for host-participant combinations when compared to other country pairs. Once again, removing some subsets of our sample does not alter our findings.

Dynamic Specification (Permanent Effect)

Our last specification is the panel estimation of the permanent effect of the World Cup on the trade flows of host-participant pairs, compared to other country pairs. In particular, we estimate the following gravity model:

$$ln(X_{ijt}) = \beta_0 + \beta_1 ln(X_{ijt-1}) + \beta_2 ln(pop_{it}) + \beta_3 ln(pop_{jt}) + \beta_4 ln(GDPpc_{it}) + \beta_5 ln(GDPpc_{jt}) + \beta_6 WTO_{ijt} + \beta_7 RTA_{ijt} + \theta_4 Participant_{ijt} + \varepsilon_{ijt} + \mu_{ijt} \quad (4)$$

where *i* denotes the importer, *j* denotes the exporter, and *t* denotes the years from 1950 to 2006. As opposed to the previous three specifications, this one includes all country pairs and years in the sample. In line with the previous panel estimation, $Participant_{ijt}$ takes on a value of 1 if the country *j* participated in the World Cup in country *i* during or prior to year *t*. We correct the bias associated with the serial correlation of export values by applying IV regression. The first stage results suggest that the second lag of the dependent variable is a strong instrument for the first lag.[16]

Tables 7 and 8 illustrate the estimation results for exports to/from country *i* from/to country *j*, respectively. The estimates on the coefficient θ_4 suggest that host-participant pairs had 7-11 percent higher trade between each other as compared to

[15] As opposed to the previous pooled estimation in section 3.1, we include the country-pair fixed effects in equation (3) due to the higher number of observations that make the estimation feasible with fixed effects.
[16] Table A2

other country pairs between 1950 and 2006. This effect is robust to the number of robustness checks such as dropping some of the regions and poor countries from the sample and removing the outliers.

4. Conclusion

The FIFA World Cup attracts media and sponsorship, draws thousands of international tourists, and provides important global showcase opportunities for countries to improve their visibility and exposure. It also works as a channel for the host and the participant countries to reduce the cultural and informational barriers between them. Therefore, the World Cup brings many mechanisms to promote trade between the host and the participant countries. In this paper, we build on this argument and obtain strong evidence of a reasonable trading effect of the World Cup using bilateral trade data for 196 countries between 1950 and 2006. We carry out our empirical analysis in two dimensions. First, focusing on the host countries' trade and estimating both static OLS and dynamic panel estimations, we show that participating in the World Cup significantly increases exports from the participant countries to the host countries, relative to a control group of non-participants. We also obtain the same pattern for the exports originating from the host countries to the participants. Second, we demonstrate that trade is reasonably higher for host-participant pairs compared to other country pairs both in the years of the World Cup and permanently over the sample of our data. These findings are also important in the sense that most of the existing studies have concentrated on the economic effects of hosting large sports events. Our study paves the way for detailed works on large sports events and the economic, social, and cultural relationships between the host and the participant countries.

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Table 1. OLS Estimation (Pooled over World Cup Hosts & Years Combinations)

Dependent variable: Log of Exports to the host countries

Participants vs. Non-participants

	All sample (1)	Drop Latin American Countries (2)	Drop African Countries (3)	Drop Middle Eastern Countries (4)	Drop Poor Countries (5)	Drop 2.5 σ outliers (6)
Lagged dependent variable	0.863	0.855	0.862	0.862	0.872	0.759
	(45.07)***	(39.00)***	(38.17)***	(44.31)***	(41.41)***	(27.24)***
$Participant_{jt}$	0.172	0.162	0.181	0.179	0.164	0.158
	(2.04)**	(2.09)**	(2.49)**	(2.85)**	(2.24)**	(1.76)*
WTO member	0.136	0.183	0.042	0.197	0.066	0.141
	(2.82)**	(2.07)**	(2.23)**	(2.15)**	(2.38)**	(2.81)**
Log $Distance_{ij}$	-0.198	-0.193	-0.262	-0.176	-0.150	-0.184
	(0.28)	(0.23)	(0.95)	(0.02)	(0.69)	(0.10)
Islands	-0.274	-0.256	-0.366	-0.264	-0.171	-0.221
	(2.46)**	(2.13)**	(2.92)***	(2.25)**	(1.34)	(1.80)*
Log $Population_{jt}$	0.449	0.434	0.457	0.446	0.469	0.457
	(1.73)*	(1.92)*	(1.49)	(1.72)*	(1.71)*	(1.86)*
Log (Real GDP $p/c)_j$	0.365	0.370	0.317	0.370	0.382	0.377
	(1.66)*	(1.73)*	(1.75)*	(1.71)*	(1.97)**	(1.66)*
Landlocked	-0.197	-0.216	-0.244	-0.205	-0.165	-0.248
	(1.80)*	(1.80)*	(1.95)*	(1.84)*	(1.47)	(1.97)**
Common $Language_{ij}$	0.202	0.192	0.203	0.229	0.289	0.231
	(1.66)*	(1.79)*	(1.74)*	(1.59)	(1.86)*	(1.91)*
RTA_{ij}	0.085	0.191	0.011	0.118	0.025	0.060
	(0.72)	(1.36)	(0.09)	(0.95)	(0.21)	(0.46)
Common $Border_{ij}$	0.480	0.310	0.399	0.498	0.550	0.549
	(2.00)**	(1.89)*	(1.85)*	(2.04)**	(2.22)**	(2.18)**
Log Product $Land\ Areas_{ij}$	-0.011	-0.021	-0.008	-0.018	-0.001	-0.007
	(0.45)	(0.74)	(0.28)	(0.70)	(0.02)	(0.26)
$Colony_{ij}$	0.345	0.317	0.202	0.345	0.515	0.468
	(1.81)*	(1.66)*	(0.91)	(1.72)*	(2.32)**	(2.14)**
Observations	1331	1114	997	1229	1146	1103
R-squared	0.83	0.82	0.84	0.83	0.84	0.71

*Notes: Robust t-statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. Year dummies and constant terms included but suppressed.*

Table2. OLS Estimation (Pooled over WC Hosts & Years Combinations)

Dependent variable: Log Exports from the host country)

Participants vs. Non Participants

	Full sample	Drop Latin American Countries	Drop African Countries	Drop Middle Eastern Countries	Drop Poor Countries	Drop 2.5□ outliers
Lagged dependent variable	0.431	0.414	0.427	0.405	0.421	0.319
	(11.45)***	(10.26)***	(10.03)***	(10.88)***	(10.81)***	(10.10)***
$Participant_{jt}$	0.145	0.132	0.121	0.131	0.121	0.133
	(2.37)**	(2.62)***	(1.89)*	(2.37)**	(1.98)**	(2.92)***
WTO member	0.181	0.147	0.181	0.147	0.184	0.187
	(1.41)	(1.11)	(1.33)	(1.07)	(2.15)**	(2.12)**
Log $Distance_{ij}$	-0.560	-0.645	-0.492	-0.569	-0.562	-0.641
	(10.66)***	(10.15)***	(9.22)***	(10.75)***	(10.74)***	(6.35)***
Islands	0.133	0.169	0.144	0.137	0.148	0.100
	(1.88)*	(2.21)**	(1.95)*	(1.82)*	(2.04)**	(0.90)
Log $Population_{jt}$	0.441	0.460	0.462	0.465	0.453	0.245
	(10.66)***	(9.98)***	(9.61)***	(11.49)***	(10.48)***	(5.03)***
Log (Real GDP $p/c)_j$	0.646	0.654	0.752	0.678	0.709	0.363
	(12.07)***	(11.18)***	(11.58)***	(12.30)***	(12.44)***	(5.72)***
Landlocked	-0.498	-0.507	-0.549	-0.484	-0.579	-0.342
	(5.70)***	(5.36)***	(5.11)***	(5.68)***	(5.88)***	(3.10)***
Common $Language_{ij}$	0.228	0.367	0.229	0.241	0.215	0.269
	(2.75)***	(3.47)***	(2.28)**	(2.77)***	(2.45)**	(2.33)**
RTA_{ij}	-0.101	-0.195	0.025	-0.124	-0.076	-0.139
	(1.40)	(2.33)**	(0.34)	(1.62)	(1.03)	(0.82)
Common $Border_{ij}$	0.028	0.021	0.093	0.007	0.009	0.381
	(0.15)	(0.12)	(0.51)	(0.04)	(0.05)	(0.86)
Log Product Land $Areas_{ij}$	0.013	0.011	-0.007	0.012	0.016	0.059
	(0.66)	(0.51)	(0.36)	(0.61)	(0.78)	(2.00)**
$Colony_{ij}$	0.902	0.934	0.863	0.979	0.933	0.704
	(5.20)***	(4.25)***	(3.73)***	(5.43)***	(4.87)***	(3.43)***
Observations	1641	1385	1234	1510	1469	767
R-squared	0.85	0.85	0.87	0.86	0.86	0.56

Notes: Robust t-statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. Year dummies and constant terms included but suppressed.

Table 3. IV Panel Estimation

Dependent variable: Log of Exports to the host countries

Participants vs. Non-participants

	All sample	Drop Latin American Countries	Drop African Countries	Drop Middle Eastern Countries	Drop Poor Countries	Drop 2.5σ outliers
Lagged dependent variable	0.750	0.735	0.750	0.744	0.748	0.565
	(104.97)***	(86.22)***	(94.89)***	(99.50)***	(99.41)***	(54.34)***
$Participant_{jt}$	0.094	0.082	0.095	0.076	0.078	0.094
	(3.02)***	(2.51)**	(3.43)***	(3.31)***	(3.21)***	(1.80)*
$WTO\ member_{ijt}$	0.035	0.050	0.009	0.057	0.051	0.009
	(1.22)	(1.62)	(0.24)	(1.84)*	(1.62)	(0.24)
$Log\ Population_{it}$	0.651	0.417	0.465	0.426	0.279	0.244
	(2.08)**	(2.10)**	(2.57)**	(3.57)***	(4.35)***	(3.26)***
$Log\ Population_{jt}$	0.250	0.204	0.239	0.231	0.244	0.298
	(3.04)***	(4.47)***	(3.48)***	(4.29)***	(3.87)***	(1.83)*
$Log\ (Real\ GDP\ p/c)_{it}$	0.629	0.556	0.535	0.523	0.529	0.551
	(2.05)**	(1.97)**	(2.81)**	(2.50)**	(2.63)**	(2.31)**
$Log\ (Real\ GDP\ p/c)_{jt}$	0.422	0.410	0.427	0.411	0.420	0.464
	(0.84)	(0.21)	(0.73)	(0.41)	(0.63)	(1.55)
RTA_{ijt}	0.034	0.048	0.020	0.054	0.036	0.022
	(1.24)	(1.50)	(0.67)	(1.89)*	(1.28)	(0.68)
Country pair fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.80	0.78	0.80	0.80	0.80	0.56
Observations	63589	53095	46999	58333	57001	44746

Notes: Robust t-statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. Year dummies and constant terms included but suppressed.

Table 4. IV Panel Estimation

Dependent variable: Log Exports from the host countries

Participants vs. Non-participants

	All sample	Drop Latin American Countries	Drop African Countries	Drop Middle Eastern Countries	Drop Poor Countries	Drop 2.5σ outliers
Lagged dependent variable	0.153	0.149	0.159	0.147	0.152	0.140
	(73.48)***	(66.34)***	(66.43)***	(67.02)***	(69.25)***	(52.41)***
$Participant_{jt}$	0.081	0.088	0.086	0.061	0.060	0.093
	(4.40)***	(3.55)***	(3.91)***	(2.73)***	(2.80)***	(4.30)***
$WTO\ member_{ijt}$	0.220	0.228	0.192	0.184	0.207	0.186
	(15.15)***	(14.43)***	(11.44)***	(12.07)***	(13.38)***	(9.81)***
$Log\ Population_{it}$	1.592	1.119	0.636	0.270	1.554	1.575
	(43.84)***	(25.85)***	(25.73)***	(10.33)***	(42.13)***	(20.83)***
$Log\ Population_{jt}$	0.431	0.301	1.505	1.568	0.556	0.644
	(18.43)***	(11.38)***	(40.30)***	(42.19)***	(23.24)***	(33.53)***
$Log\ (Real\ GDP\ p/c)_{it}$	1.171	1.116	0.829	0.835	1.223	0.893
	(57.65)***	(47.49)***	(58.79)***	(58.91)***	(55.88)***	(51.51)***
$Log\ (Real\ GDP\ p/c)_{jt}$	0.817	0.809	1.270	1.235	0.840	1.144
	(64.09)***	(58.06)***	(53.50)***	(62.85)***	(58.42)***	(46.06)***
RTA_{ijt}	0.327	0.381	0.285	0.351	0.332	0.349
	(23.90)***	(23.52)***	(20.54)***	(24.88)***	(24.31)***	(20.31)***
Country pair fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.57	0.63	0.65	0.53	0.61	0.61
Observations	82236	69340	61115	75436	73541	50326

Notes: Robust t-statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. Year dummies and constant terms included but suppressed.

Table 5. OLS Estimation (Pooled over WC years)

Dependent variable: Exports to i

Host- Participant pairs vs. Others

	All sample	Drop Latin American Countries	Drop African Countries	Drop Middle Eastern Countries	Drop Poor Countries	Drop 2.5σ outliers
Lagged dependent variable	0.621	0.616	0.621	0.624	0.619	0.463
	(190.87)***	(174.93)***	(171.07)***	(183.72)***	(181.74)***	(118.99)***
$Participant_{ijt}$	0.191	0.204	0.208	0.200	0.199	0.168
	(2.05)**	(2.81)***	(2.24)**	(2.10)**	(2.14)**	(1.79)*
WTO member	0.004	0.004	0.028	0.003	0.015	0.042
	(0.13)	(0.13)	(0.81)	(0.09)	(0.47)	(1.18)
Log $Population_{it}$	0.381	0.344	0.312	0.370	0.306	0.363
	(1.78)*	(1.79)*	(1.60)	(1.76)*	(1.74)*	(1.71)*
Log $Population_{jt}$	0.172	0.195	0.137	0.161	0.153	0.183
	(1.29)	(1.58)	(1.74)*	(0.98)	(0.90)	(0.95)
Log $(Real\ GDP\ p/c)_{it}$	0.720	0.843	0.839	0.839	0.711	0.819
	(1.73)*	(1.84)*	(2.06)**	(1.18)	(1.20)	(1.59)
Log $(Real\ GDP\ p/c)_{jt}$	0.637	0.509	0.618	0.632	0.646	0.560
	(2.15)**	(2.29)**	(2.00)**	(2.87)**	(2.02)**	(2.24)**
RTA_{ijt}	0.016	0.011	0.035	0.005	0.019	0.035
	(0.59)	(0.36)	(1.18)	(0.17)	(0.66)	(1.11)
Country pair fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.39	0.39	0.39	0.39	0.39	0.25
Observations	73875	64344	58259	67532	68038	58619

Notes: Robust t-statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. Year dummies and constant terms included but suppressed.

Table 6. OLS Estimation (Pooled over WC years)

Dependent variable: Exports from *i*

Host- Participant pairs vs. Others

	All sample	Drop Latin American Countries	Drop African Countries	Drop Middle Eastern Countries	Drop Poor Countries	Drop 2.5σ outliers
Lagged dependent variable	0.189	0.186	0.189	0.190	0.188	0.183
	(114.45)***	(106.40)***	(102.37)***	(108.64)***	(108.82)***	(88.27)***
$Participant_{ijt}$	0.180	0.159	0.170	0.152	0.185	0.166
	(4.32)***	(3.34)***	(4.05)***	(3.79)***	(3.79)***	(3.09)***
$WTO\ member_{ijt}$	0.112	0.130	0.131	0.133	0.134	0.127
	(15.74)***	(14.51)***	(14.09)***	(14.91)***	(15.15)***	(10.94)***
$Log\ Population_{it}$	0.121	0.146	0.149	0.051	0.044	0.075
	(0.32)	(3.59)***	(1.21)	(13.90)***	(18.16)***	(15.05)***
$Log\ Population_{jt}$	0.283	0.265	0.253	0.264	0.278	0.276
	(16.36)***	(12.36)***	(19.16)***	(0.90)	(1.11)	(1.59)
$Log\ (Real\ GDP\ p/c)_{it}$	1.004	0.677	1.076	1.034	0.745	0.717
	(46.60)***	(32.15)***	(28.07)***	(33.94)***	(30.60)***	(27.86)***
$Log\ (Real\ GDP\ p/c)_{jt}$	0.687	1.001	0.682	0.718	1.031	1.038
	(34.19)***	(43.61)***	(45.37)***	(45.99)***	(45.93)***	(38.59)***
RTA_{ijt}	0.279	0.278	0.263	0.285	0.273	0.245
	(15.76)***	(14.13)***	(13.74)***	(15.36)***	(14.96)***	(11.12)***
Country pair fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.26	0.25	0.28	0.26	0.26	0.26
Observations	112192	97912	87483	102850	102866	69816

Notes: Robust t-statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. Year dummies and constant terms included but suppressed.

Table 7. IV Panel Estimation

Dependent variable: Exports to i

Host-Participant pairs vs. Others

	All sample	Drop Latin American Countries	Drop African Countries	Drop Middle Eastern Countries	Drop Poor Countries	Drop 2.5σ outliers
Lagged dependent variable	0.821	0.817	0.829	0.820	0.821	0.705
	(202.82)***	(183.40)***	(191.11)***	(193.24)***	(195.31)***	(123.81)***
$Participant_{ijt}$	0.073	0.094	0.085	0.086	0.078	0.045
	(2.90)**	(1.99)**	(2.12)**	(2.19)**	(2.02)**	(2.88)**
WTO member	0.016	0.017	0.031	0.015	0.023	0.033
	(2.29)**	(2.25)**	(2.12)**	(1.13)	(1.68)*	(2.13)**
Log $Population_{it}$	0.030	0.021	0.029	0.025	0.022	0.021
	(1.29)	(0.83)	(1.17)	(0.19)	(1.65)*	(2.16)**
Log $Population_{jt}$	0.176	0.218	0.307	0.345	0.298	0.262
	(2.78)**	(2.91)**	(2.20)**	(2.02)**	(2.93)**	(2.78)**
Log (Real GDP p/c)$_{it}$	0.303	0.411	0.304	0.312	0.310	0.300
	(0.21)	(0.30)	(0.12)	(0.55)	(0.19)	(0.03)
Log (Real GDP p/c)$_{jt}$	0.591	0.543	0.524	0.687	0.639	0.518
	(3.69)***	(3.85)***	(2.28)**	(2.92)**	(2.70)**	(3.12)***
RTA_{ijt}	0.001	0.006	0.001	0.001	-0.002	0.015
	(0.07)	(0.49)	(0.11)	(0.06)	(0.16)	(1.10)
Country pair fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.83	0.82	0.82	0.83	0.78	0.68
Observations	327537	285402	257457	299657	300999	253226

Notes: Robust t-statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. Year dummies and constant terms included but suppressed. Constant terms included

Table 8. IV Panel Estimation

Dependent variable: Exports from i

Host-Participant pairs vs. Others

	All sample	Drop Latin American Countries	Drop African Countries	Drop Middle Eastern Countries	Drop Poor Countries	Drop 2.5σ outliers
Lagged dependent variable	0.193	0.190	0.195	0.191	0.187	0.189
	(161.72)***	(149.64)***	(145.97)***	(151.81)***	(152.50)***	(129.82)***
$Participant_{ijt}$	0.102	0.104	0.111	0.112	0.114	0.113
	(10.43)***	(8.39)***	(9.83)***	(9.30)***	(9.83)***	(5.41)***
WTO member	0.053	0.033	0.061	0.047	0.050	0.072
	(35.43)***	(32.11)***	(32.22)***	(32.85)***	(38.50)***	(24.84)***
Log $Population_{it}$	0.059	0.078	0.094	0.086	0.069	0.045
	(3.14)***	(22.15)***	(38.89)***	(23.92)***	(10.08)***	(27.77)***
Log $Population_{jt}$	0.537	0.420	0.762	0.483	0.193	0.694
	(30.08)***	(8.78)***	(4.60)***	(4.22)***	(31.36)***	(1.74)*
Log (Real GDP p/c)$_{it}$	0.981	0.645	0.676	1.001	0.664	0.457
	(92.10)***	(86.88)***	(55.92)***	(89.89)***	(66.35)***	(51.29)***
Log (Real GDP p/c)$_{jt}$	0.651	0.985	1.037	0.668	1.090	0.708
	(65.52)***	(62.15)***	(88.22)***	(63.42)***	(91.01)***	(35.45)***
RTA_{ijt}	0.244	0.241	0.218	0.249	0.247	0.145
	(26.98)***	(23.96)***	(22.25)***	(26.36)***	(27.09)***	(11.65)***
Country pair fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.76	0.46	0.46	0.50	0.59	0.28
Observations	448287	390071	348657	409738	415905	332224

Notes: Robust t-statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. Year dummies and constant terms included but suppressed. Constant terms included

TABLE A1. FIFA WORLD CUP: 1950-2006

Year	Host	Participants
1950	Brazil	Brazil, Italy, England, Uruguay, Sweden, Switzerland, Spain, Bolivia, Chile, Paraguay, Yugoslavia, India, Mexico, Portugal, United States, France
1954	Switzerland	Switzerland, Uruguay, Brazil, Hungary, Austria, England, West Germany, Yugoslavia, France, Italy, Czechoslovakia, Turkey, Belgium, Mexico, South Korea, Scotland
1958	Sweden	Sweden, West Germany, Austria, France, Czechoslovakia, Hungary, Soviet Union, Yugoslavia, England, Northern Ireland, Scotland, Wales, Argentina, Brazil, Mexico, Paraguay
1962	Chile	Chile, Brazil, Argentina, Uruguay, Czechoslovakia, England, Soviet Union, West Germany, Italy, Hungary, Spain, Yugoslavia, Bulgaria, Colombia, Mexico, Switzerland
1966	England	Brazil, Argentina, Chile, Uruguay, England, Italy, Portugal, West Germany, France, Hungary, Switzerland, Soviet Union, Bulgaria, North Korea, Mexico, Spain
1970	Mexico	Brazil, Italy, Germany FR, Uruguay, England, Mexico, Peru, Soviet Union, Belgium, Bulgaria, Czechoslovakia, El Salvador, Israel, Morocco, Romania, Sweden
1974	Germany	West Germany, Italy, Netherlands, Scotland, Bulgaria, Germany, Poland, Yugoslavia, Brazil, Argentina, Chile, Uruguay, Australia, Haiti, Sweden, Zaire
1978	Argentina	Argentina, Germany, Netherlands, Brazil, Italy, Sweden, Mexico, Peru, Hungary, Poland, Scotland, Spain, Austria, France, Iran, Tunisia
1982	Spain	Spain, Argentina, Brazil, Italy, Germany, England, Austria, Soviet Union, Hungary, Poland, Czechoslovakia, Yugoslavia, Belgium, Scotland, Northern Ireland, France, Chile, Peru, Algeria, Cameroon, Kuwait, El Salvador, Honduras, New Zealand
1986	Mexico	Germany, France, Belgium, Brazil, England, Mexico, Spain, Bulgaria, England, Mexico, Spain, Bulgaria, Denmark, Italy, Morocco, Paraguay, Poland, Uruguay, Soviet Union, Algeria, Canada, Hungary, Iraq, Korea Republic, Northern Ireland, Portugal, Scotland
1990	Italy	Italy, Argentina, Brazil, Germany, Belgium, England, Austria, Netherlands, Scotland, Spain, Soviet Union, Yugoslavia, Colombia, Czechoslovakia, Ireland, Romania, Sweden, Uruguay, Cameroon, Costa Rica, Egypt, South Korea, United Arab Emirates, United States
1994	USA	United States, Germany, Argentina, Belgium, Brazil, Italy, Bulgaria, Ireland, Netherlands, Romania, Spain, Russia, Greece, Norway, Sweden, Switzerland, South Korea, Saudi Arabia, Cameroon, Morocco, Nigeria, Bolivia, Colombia, Mexico
1998	France	France, Brazil, Argentina, Germany, Italy, Netherlands, Romania, Spain, Cameroon, Morocco, Nigeria, South Africa, Tunisia, Jamaica, Mexico, United States, Austria, Belgium, Bulgaria, Croatia, Denmark, England, Norway, Scotland, Yugoslavia, Chile, Colombia, Paraguay, Iran, Japan, South Korea, Saudi Arabia
2002	Korea and Japan	Argentina, Brazil, Germany, Italy, France, Japan, South Korea, Spain, Belgium, Croatia, Denmark, England, Ireland, Poland, Portugal, Russia, Slovenia, Sweden, Turkey, China, Ecuador, Paraguay, Saudi Arabia, Uruguay, Cameroon, Costa Rica, Mexico, Nigeria, Senegal, South Africa, Tunisia, United States
2006	Germany	Iran, Japan, Saudi Arabia, South Korea, Angola, Ivory Coast, Ghana, Togo, Tunisia, Costa Rica, Mexico, Trinidad and Tobago, United States, Argentina, Brazil, Ecuador, Paraguay, Australia, Croatia, Czech Republic, England, France, Italy, Netherlands, Poland, Portugal, Serbia, Spain, Switzerland, Sweden, Ukraine

TABLE A2. TESTING INSTRUMENT QUALITY

First Stage Estimates

	Table 3 (1)	Table 4 (1)	Table 7 (1)	Table 8 (1)
	First lag	First lag	First lag	First lag
Second lag	0.130		0.210	
	(187.20)***		(40.57)***	
Second lag		0.562		0.544
		(556.27)***		(242.93)***
$Participant_j$	0.241	0.066	0.146	0.003
	(4.76)***	(1.29)	(1.02)	(0.07)
WTO member	0.078	0.097	0.065	0.056
	(4.65)***	(6.44)***	(5.43)***	(1.98)**
$Log\ Population_i$	-0.014	0.378	0.233	1.355
	(0.46)	(19.67)***	(0.84)	(9.06)***
$Log\ Population_j$	-0.014	0.528	-0.009	0.422
	(0.48)	(13.43)***	(0.05)	(19.79)***
$Log\ (Real\ GDP\ p/c)_i$	-0.085	0.504	-0.222	0.676
	(4.76)***	(31.64)***	(0.94)	(15.58)***
$Log\ (Real\ GDP\ p/c)_j$	-0.045	0.402	-0.075	0.474
	(2.77)***	(26.93)***	(1.50)	(18.87)***
RTA	0.010	0.101	0.073	0.167
	(0.68)	(7.43)***	(0.86)	(6.31)***
Observations	327537	447334	63589	82236
R-squared	0.10	0.53	0.19	0.65
***F* stat**	**562.11**	**7613.15**	**34.02**	**2070.77**

Notes: Robust t-statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. Year dummies and constant terms included but suppressed. Constant terms included.