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Kazunobu Hayakawa
Fukunari Kimura
Kaoru Nabeshima

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NONCONVENTIONAL PROVISIONS IN REGIONAL TRADE AGREEMENTS: DO THEY ENHANCE INTERNATIONAL TRADE?

Kazunobu Hayakawa[*]
Japan External Trade Organization, Thailand

Fukunari Kimura
Keio University, Japan

Kaoru Nabeshima
Japan External Trade Organization, Japan

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The scope of recent regional trade agreements (RTAs) has become much broader than before by the inclusion of nonconventional provisions such as those on competition policy and intellectual property rights protection. This paper empirically examines the extent to which those nonconventional provisions in RTAs enhance international trade between RTA member countries by estimating a gravity equation with detailed information on the contents of RTAs. We find that the provision for competition policy has the largest effect on international trade, followed by the government procurement provision. These two provisions have significant and positive impacts on intensive margin intensive margin (trade values per variety) and extensive margin (number of varieties traded)

JEL classification codes: F15, F20, F53
Key words: gravity equation, RTA, extensive and intensive margins

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[*] Kazunobu Hayakawa: Bangkok Research Center, Japan External Trade Organization, 16th Floor, Nantawan Building, 161 Rajadamri Road, Pathumwan, Bangkok 10330, Thailand. Tel: 66-2-253-6441; Fax: 66-2-254-1447. E-mail: kazunobu_hayakawa@ide-jetro.org. We would like to thank Yoshifumi Fukunaga and two anonymous referees for their useful comments. The opinions expressed in this paper are of the authors themselves and do not represent views of any of the institutions to which they are affiliated.

I. Introduction

The scope of recent regional trade agreements (RTAs) has significantly broadened. RTAs used to be signed to primarily reduce and eventually eliminate tariff rates. Although the elimination of tariffs continues to be one of the major purposes, new RTAs tend to include provisions for various policies such as the mobility of persons, government procurement, competition policy, intellectual property rights protection, E-commerce, dispute settlement, labor standards, environmental policy, technical cooperation, institutional mechanisms, and so on. The coverage and depth of these provisions go beyond those in WTO-based agreements such as the Government Procurement Agreement (GPA) or the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). For example, since only a handful of countries have signed GPA, RTAs with specific provisions for government procurement can lower barriers in those countries that have not signed the GPA. Even for those countries that signed GPA, provisions for government procurement in RTAs can farther liberalize government procurement by requiring lower monetary thresholds for contracts. Such "extended RTAs" not only reduce tariff rates but also enhance the cooperation and linkage in various economic fields among member countries.

Significant varieties exist across RTAs in the included provisions. For example, the ASEAN–China Free Trade Area agreement does not contain a provision for government procurement; the South Asian Free Trade Area agreement does not cover intellectual property; the Australia–Chile Free Trade agreement does not have a provision for government procurement; and the Economic Cooperation Organisation Trade Agreement does not include dispute settlement. In contrast, the North American Free Trade Agreement (NAFTA) incorporates all of these four aforementioned provisions. If the existence of each provision has significant and varying degrees of trade creation effects, such differences in the scope of RTAs can lead to heterogeneous effects on trade among RTAs, even if they have the same magnitude of the tariff reduction.

This paper empirically examines the extent to which advanced and nonconventional provisions in RTAs enhance international trade among RTA member countries. It tries to detect trade creation effects of RTAs and identify provisions that are particularly effective for trade creation. Previous studies such as Brusick, Alvarez, and Cernat (2005), Alvarez and Wilse–Samson (2007), and Duval (2011) examined specific RTA provisions. However, to our knowledge, no

paper has directly quantified trade creation effects across different provisions. Our empirical results yield useful policy implication for designing an RTA.

To detect heterogeneous trade creation effects across RTAs, we apply the well-known gravity equation as a basis. In the literature of measuring trade-enhancing effects of RTAs, gravity equations with RTA dummy variables have often been estimated (e.g., Baier and Bergstrand 2007; Caporale et al. 2009; Medvedev 2010; Roy 2010; Vicard 2009). A typical dummy variable takes unity if trading countries belong to the same RTA and zero otherwise. This paper separates out this simplistic conventional RTA dummy into five variables. The first is bilateral tariff rates to capture direct trade creation effects. The rest of the variables are dummy variables indicating the existence of four nonconventional RTA provisions: government procurement, competition policy, intellectual property rights protection, and dispute settlement. These four provisions are chosen because it is relatively clear-cut to identify whether they are included in agreements or not.[1] We investigate whether the coefficient for each of these variables in the gravity equation is estimated to be significantly positive or not.

Our decomposition of trade creation effects of RTAs contributes to the literature on measuring trade-enhancing effects of RTAs using gravity equations. In particular, this paper shares an analytical approach with Vicard (2009), Roy (2010), and Baier, Bergstrand, and Fang (2011). These studies unpacked the conventional RTA dummy variable into different types of RTAs such as preferential arrangements, free trade agreements, customs unions, and common markets. Roy (2010) and Baier, Bergstrand, and Fang (2011) found that the trade creation effect is larger in customs unions than in free trade agreements. In contrast, Vicard (2009) found that the magnitude of trade creation effects is not significantly different among various types of RTAs. This paper explicitly measures the depth of RTAs by individually identifying several RTA provisions and examining the relationship between each provision and trade creation effects. Such an analysis will provide a more direct and appropriate analysis of the relationship between the depth of RTAs and their trade creation effects.

[1] This paper does not examine some of the nonconventional provisions such as investment chapters because the depth of those provisions varies too widely among RTAs.

This paper also investigates trade creation effects in greater detail by differentiating them between intensive and extensive margins. Recent literature investigated changes in trade values by decomposing them into changes in the number of varieties traded (extensive margin) and changes in trade values per variety (intensive margin). Some studies on trade creation claim the importance of the extensive margin whereas others emphasize the intensive margin. To date, the existing literature has obtained mixed results. For example, Debaere and Mostashari (2010) examined changes in the effect of tariff reduction on the extensive margin and found that tariff reductions had a small effect on the extensive margin relative to overall growth in international trade. However, Felbermayr and Kohler (2006) found that, from 1950 to 1997, 40% of growth in world trade came from the extensive margin. Liu (2009) assessed that the GATT/WTO promoted trade not only in the extensive margin but also in the intensive margin. To conclude the debate on the effects of intensive and extensive margins, further examination is obviously needed.[2] To our best knowledge, no study has explored the effects of RTA provisions on extensive and intensive margins.[3]

In addition to our contribution to the academic literature, our results should be useful for policymakers to judge which will be more significant as effects of RTAs, extensive or intensive margins. If the trade creation effects are realized primarily in the intensive margin, political support for RTAs may be limited to firms and industries that have already traded. In contrast, if the effects come primarily to the extensive margin, the basis of political support can be broadened to include firms and industries that do not currently export but have a potential to do so. If we know that each RTA provision has a different effect on the intensive and the extensive margins, policymakers may want to design RTAs so as to enhance international trade with broadening political support. Our analysis would derive an important implication from a political economy viewpoint.

[2] Other studies on intensive and extensive margins include Besedes and Prusa (2011), Chaney (2008), Baier, Bergstrand, and Fang (2011), Egger et al. (2011), Foster, Poesschl, and Stehrer (2011), and Helpman, Melitz, and Rubinstein (2008).

[3] Baier, Bergstrand, and Fang (2011) examined the effects of the aforementioned types of RTAs on intensive and extensive margins. They found that customs unions (including not only customs unions but also common market and economic unions) yield larger effects on both intensive and extensive margins than free trade agreements.

The remainder of this paper is organized as follows: the next section provides an overview of RTAs regarding their coverage of provisions. Section III specifies our empirical framework to examine the effects of these provisions on international trade, and the estimation results are reported in Section IV. The last section concludes the paper.

II. Heterogeneity in regional trade agreements

RTAs include many provisions in different combinations. This paper focuses on the role of four types of provisions in RTAs that are relatively easy to identify: government procurement, intellectual property, competition policy, and dispute settlement. Using the Trans-Pacific Strategic Economic Partnership Agreement (Trans-Pacific SEP), which entered into force among Brunei, Chile, New Zealand, and Singapore in 2006 (and has 20 chapters)[4], as an example, we first take a brief look at the content of each provision.

The provision for government procurement lowers barriers in government procurement processes through better transparency in awarding contracts, information access, market access, and national treatment. The monetary thresholds for contracts are often lowered to make public procurement a more contestable market. In the case of the Trans-Pacific SEP, Chapter 11 consists of a clause on government procurement: *Procuring entities in each Party will grant equal and non-discriminatory access to government tenders in excess of the agreed monetary thresholds to suppliers from other Parties to the Trans-Pacific SEP*. As a result, the government procurement provision grants foreign firms an access to the government procurement market, which typically accounts for more than ten percent of GDP, thereby resulting in an increase in trade among member countries in this economically important and often highly protected market.

[4] 1. Initial Provisions; 2. General Definitions; 3. Trade in Goods; 4. Rules of Origin; 5. Customs Procedures; 6. Trade Remedies; 7. Sanitary and Phyto-Sanitary Measures; 8. Technical Barriers to trade; 9. Competition Policy; 10. Intellectual Property; 11. Government Procurement; 12. Trade in Services; 13. Temporary Entry; 14. Transparency; 15. Dispute Settlement; 16. Strategic Partnership; 17. Administrative and Institutional Provisions; 18. General Provisions; 19. General Exceptions; 20. Final Provisions. For more details, see Asian Development Bank (2008) and International Enterprise Singapore (http://www.fta.gov.sg/fta_tpfta.asp?hl=12). Trans-Pacific SEP is the base for the current Trans-Pacific Partnership (TPP) negotiations with expanded members.

The intellectual property provision includes implementation of stronger protection for such property. In the case of the Trans-Pacific SEP, Chapter 10 addresses intellectual property. As a result, the intellectual property provision plays a role in strengthening the protection of intellectual property and thus in increasing trade, particularly of goods that incorporate high technology and creative content among member countries.

The chapter on competition policy contains commitments to ensure that *(i) anticompetitive business practices are proscribed, (ii) monopolies do not abuse their powers, (iii) there are avenues for complaints of unfair practices to be initiated, and (iv) the relevant authorities commit to cooperate and consult one another to facilitate enforcement and share best practices* (Asian Development Bank 2008). Chapter 9 of the Trans-Pacific SEP establishes competition policy agreement. According to its legal text, Article 9.2 requires each Party to adopt or maintain competition laws that proscribe anticompetitive business conduct with the objective of promoting economic efficiency and consumer welfare. FTA members are to consult on the effectiveness of their national competition laws and cooperate on the enforcement of those laws through mutual legal assistance, notification, consultation, and the exchange of information. In turn, the competition policy provision is expected to minimize the distortion in the effects on trade creation by the existence of an anticompetitive policy.

The dispute settlement provision requires consultations, mediation, conciliation, and some form of arbitration if consultations are unsuccessful. Chapter 15 of the Trans-Pacific SEP states the provision for dispute settlement: *The Parties shall enter into consultations within a period of no more than 15 days after the date of receipt of the request for matters concerning perishable goods or 30 days after the date of receipt of the request for all other matters. The consulting Parties shall make every attempt to reach a mutually satisfactory resolution of any matter through consultations. If the consulting Parties fail to resolve the matter, then an arbitral tribunal will be established*. As a result, firms' risk of causing diplomatic embarrassment is lowered and thus firms do not need to hesitate while expanding their trade.

We have checked these provisions in other RTAs. The Asia-Pacific Trade and Investment Agreements Database by the United Nations Economic and Social

Commission for Asia and the Pacific (ESCAP) provides detailed descriptive and updated information on the provisions of RTAs. The latest available version of the database covers all agreements reported to the WTO, in which at least one party is in the ESCAP region. It also includes other agreements that were not notified, but for which official information is readily available. For some RTAs, we also incorporate data from the Free Trade Agreement Database for Asia provided by the Asia Regional Integration Center of the Asian Development Bank. As a result, our database includes 111 RTAs in the ESCAP region that were into force by 2009 (see Appendix).[5] Table 1 tabulates the existence of each provision in our sample RTAs. The upper panel of Table 1 indicates that not all RTAs include all four provisions of our interest. While more than a half of the RTAs in our sample included a dispute settlement provision, the provisions for government procurement, competition policy, and intellectual property are less likely to be incorporated (less than 50%). This finding may indicate that the dispute settlement mechanism is perceived as a standard item included in RTAs. In contrast, only 36% of RTAs included the provision on government procurement. Because the government procurement issue was removed from the Doha agenda in 2004, its inclusion may also be relatively difficult in the negotiation for concluding RTAs.

The lower panel of the table gives a more detailed descriptions on the four provisions of interest. This panel indicates that a half of the RTAs either contain all provisions (24%), or no additional provisions (27%), while their coverage varies widely for the rest of RTAs. A relatively large share of RTAs includes only the dispute settlement provision (15%), and no RTA includes only the government procurement provision. By differentiating these provisions, our aim is to estimate trade creation effects more precisely and to identify the provisions that are more effective. Such a wide variety in RTAs' depth and coverage has been a missing factor in the literature.

[5] There was a drastic increase in RTAs in the ESCAP region from approximately 40 in 2000 to 111 in 2009.

Table 1. Existence of provisions in sample RTAs

Government Procurement	Competition Policy	Intellectual Property	Dispute Settlement	Number	Percent
YES				40	36
	YES			46	42
		YES		53	48
			YES	67	60
YES	YES	YES	YES	27	24
YES	YES	YES	NO	4	4
YES	YES	NO	YES	4	4
YES	NO	YES	YES	3	3
NO	YES	YES	YES	2	2
YES	YES	NO	NO	0	0
YES	NO	YES	NO	1	1
YES	NO	NO	YES	1	1
NO	YES	YES	NO	3	3
NO	YES	NO	YES	5	5
NO	NO	YES	YES	8	7
NO	NO	NO	YES	17	15
NO	NO	YES	NO	5	5
NO	YES	NO	NO	1	1
YES	NO	NO	NO	0	0
NO	NO	NO	NO	30	27

Source: Asia-Pacific Trade and Investment Agreements Database (UN ESCAP).

III. Empirical framework

This section first presents our empirical specification for examining heterogeneous effects of RTAs. After briefly introducing our extended gravity equation, we discuss some empirical issues on the estimation of the gravity equation for RTA evaluation, in addition to presenting our data sources.

A. Gravity equation

In international economics, it is well known that a gravity equation is one of the most successful tools for quantitatively analyzing bilateral merchandise trade. The basic equation is the following:

$$\ln T_{ij} = \beta_1 \ln \text{Distance}_{ij} + \beta_2 \text{Contiguity}_{ij} + \beta_3 \text{Language}_{ij} + \beta_4 \text{Colony}_{ij} + \beta_5 \text{RTA}_{ij} + u_i + u_j + \varepsilon_{ij}, \quad (1)$$

where T_{ij} represents bilateral goods exports of country i to country j, ε represents a disturbance term, Distance_{ij} denotes the geographical distance between countries i and j, Contiguity_{ij} takes the value of unity if two countries share the national border and takes zero otherwise, Language_{ij} is a dummy variable taking the value of unity if a common language is spoken by at least 9% of the population in both countries and zero otherwise, and Colony_{ij} is a binary variable indicating whether the two countries have had a colonial relationship. To evaluate RTAs, a conventional RTA dummy is often included that takes the value of unity if two countries are members of the same RTA and takes zero otherwise. Furthermore, Anderson and van Wincoop (2003) claimed the necessity of controlling for exporter and importer price indices, which are called "multilateral resistance" terms. To take care of it, following Feenstra (2002), we include importer and exporter fixed effects (u_i and u_j).

We decompose the effects of RTAs on trade values by specifying our gravity equation as follows:

$$\ln T_{ij} = \beta_1 \ln \text{Distance}_{ij} + \beta_2 \text{Contiguity}_{ij} + \beta_3 \text{Language}_{ij} + \beta_4 \text{Colony}_{ij} + \beta_5 \text{RTA}_{ij} + \beta_6 \ln (1+\text{Tariff}_{ij}) + \beta_7 \text{Government}_{ij} + \beta_8 \text{Competition}_{ij} + \beta_9 \text{Intellectual}_{ij} + \beta_{10} \text{Dispute}_{ij} + \beta_{11} \text{WTO}_{ij} + u_i + u_j + \varepsilon_{ij}, \quad (2)$$

where Tariff_{ij} indicates the applied tariff rates of country j on goods from country i. This variable captures the main role of RTAs, namely tariff reduction. However, note that this variable also goes with the effect of the generalized system of preferences (GSP), most favored nation (MFN) rates, and so on. Government_{ij}, Competition_{ij}, Intellectual_{ij}, and Dispute_{ij} are dummy variables taking unity if two countries conclude an RTA that includes provisions for government procurement, competition policy, intellectual property, and dispute settlement, respectively. Unless two countries share the same RTA, these variables are set to zero. The average effect of the rest of the crucial elements in an RTA appears in the coefficient for the conventional RTA dummy variable. We also introduce a WTO membership dummy variable that takes the value of unity if both the countries are members of the WTO and takes zero otherwise. As previously noted, the depth and coverage of provisions in recent RTAs tend to go beyond those of WTO agreements. To confirm that this depth and coverage contribute to trade creation above and beyond

the effects stemming from WTO membership, we examine the trade creation effects of each provision and control for WTO membership.

B. Empirical issues

We estimate these equations for manufactured goods trade among 73 countries in 2009.[6] The sample is restricted to trade among pairs of countries with at least one country in the ESCAP region. The data on trade values are obtained from the UN Comtrade database. We aggregate the HS1992 six-digit-level trade values into a single trade value for the manufacturing industry (Sections 2 to 4 in the CPC provisional classification)[7] using the conversion table between CPC provisional classification and HS1992 available from the United Nations Statistical Division (UNSD) website.[8] The data on Distance, Contiguity, Language, and Colony are obtained from the Centre d'Informations Internationales (CEPII) website. The information on RTAs is derived from the same source described in Section II.

Our data on tariff rates for manufactured goods trade come from the World Integrated Trade Solution (WITS),[9] which contains the most comprehensive information on tariff rates developed by the World Bank, the United Nations Conference on Trade and Development (UNCTAD), the International Trade Center (ITC), UNSD, and the WTO. In addition, other sources are used to identify exact tariff schemes for each trading partner.[10] In particular, we construct a list of member countries for the WTO and each RTA. Moreover, the GSP beneficiaries are different across importers. The information on WTO membership is obtained from the WTO website. We again obtain a member list for each RTA from the Asia-Pacific Trade and Investment Agreements Database. As for GSP beneficiaries,

[6] A list of countries included in our sample is provided in Appendix.
[7] Section 2 contains food products, beverages and tobacco, textiles, apparel, and leather products; Section 3 contains other transportable goods except for metal products, machinery, and equipment; Section 4 covers metal products, machinery, and equipment.
[8] http://unstats.un.org/unsd/cr/registry/regdnld.asp?Lg=1
[9] http://wits.worldbank.org/WITS/
[10] Here, we assume that all firms use the tariff schemes with the lowest rates. However, in reality, some firms may be forced to use the higher general tariff rates such as MFN rates because incurring fixed costs to use preferential tariff schemes is necessary (Demidova and Krishna 2008).

we use several documents available from the UNCTAD website[11] in addition to official documents from the website of the national customs for each country. We simply treat non-ad valorem tariff rates as missing. Moreover, for simplicity, we use the lower rates for mixed tariff rates, although these treatments underestimate tariff rates to some extent. However, our focus on manufactured goods obviously decreases the magnitude of these kinds of underestimations because non-ad valorem tariff rates and mixed tariff rates are mostly applied to non-manufactured goods.

We estimate these gravity equations using the pseudo Poisson maximum likelihood (PPML) method. The literature noted the treatment of zero-valued trade as a major issue. As Melitz (2003) suggested, the trade values can systematically be zero. However, taking logarithms of trade values drops such observations from the sample, and zero trade becomes undefined in the gravity equation. Because a systematic reason exists for zero trade between two countries, dropping observations with zero trade leads to eliminating potentially useful information and sample selection bias. To include zero trade in our sample, we employ the PPML estimation technique proposed by Silva and Tenreyro (2006), which enables us to estimate a gravity model including zero trade because the dependent variable is not the log of trade but the actual trade value. Furthermore, because the independent variables enter in logs, their coefficients can still be interpreted as elasticities.[12]

Finally, the conventional RTA dummy is, without doubt, not an exogenous random variable: countries systematically and purposefully decide whether they conclude an RTA. Furthermore, the elements that influence international trade also affect the decision on the RTA conclusion (see, for example, Baier and Bergstrand 2004). Hence, the conventional RTA dummy is possibly correlated with the

[11] http://www.unctad.org/Templates/Page.asp?intItemID=1418&lang=1

[12] Another approach, as proposed by Helpman, Melitz, and Rubinstein (2008), takes into account such a systematic sample selection (HMR method). This approach represents an extended technique of the Heckman two-step estimation. The first-step estimation examines the probability that two countries have positive trade values, and the second-step estimation is restricted to country pairs with positive trade and then examines its magnitude while taking into account the results of the first-step estimation. Although the PPML assumes no special reasons for zero trade, this HMR method succeeds in accounting for the zero trade issue by taking into account the selection mechanics of trade. We employ the modified version of this HMR method in Section IV. B.

disturbance term. Without accounting for the endogeneity of the RTA dummy, the estimation of the gravity equation using the conventional RTA dummy through ordinary least-squares results in biased estimates. Baier and Bergstrand (2007) closely examined the endogeneity issue in the RTA dummy and demonstrated that the most plausible estimates of RTA effects on international trade are obtained from the gravity estimation using panel data with bilateral fixed effects.

However, our use of cross-sectional data does not allow us to account for this issue using a method similar to that of Baier and Bergstrand (2007). We could not construct the panel data for two reasons. First, our RTA dataset does not include RTAs inactive before 2010 (e.g., Turkey–Slovenia FTA). Ignoring such inactive RTAs yields estimation biases. Second, we do not know the year in which each provision was included in agreements. Although our database on RTAs includes the year of their entry into force, provisions are sometimes included in agreements several years after that year. Again, ignoring the difference in entry years between RTAs and their provisions will create biases in our estimates. In particular, such biases may be more serious than endogeneity biases. As a result, we need to carefully interpret our estimates with the cross-sectional data.

IV. Empirical results

This section first presents our estimation results using the gravity equations. Then, we separately examine the effects of each RTA provision on the intensive and extensive margins.

A. Gravity results on RTA variables

The baseline equation (includes a conventional RTA dummy variable) is reported in column (I) of Table 2. All coefficients have the expected signs. The geographical distance between trading partners is negatively correlated with trade values as expected. The linguistic commonality and the sharing of national border encourage active trade between two countries. The coefficient for the WTO dummy is estimated to be significantly positive though its magnitude seems large. In consistence with previous findings in the literature, we obtain a significantly positive coefficient for the conventional RTA dummy variable, thereby indicating positive trade creation effects. Specifically, RTAs increase bilateral trade by 23%.

This magnitude is a little smaller than that in Baier and Bergstrand (2007), which estimated a gravity equation for another time period (1960–2000).

Table 2. PPML estimation for gravity equations

	(I)	(II)	(III)	(IV)	(V)	(VI)
Distance	-0.619***	-0.679***	-0.635***	-0.657***	-0.602***	-0.606***
	[0.042]	[0.046]	[0.043]	[0.044]	[0.043]	[0.044]
Language	0.304***	0.202**	0.188*	0.166	0.195*	0.256**
	[0.107]	[0.102]	[0.108]	[0.103]	[0.118]	[0.116]
Contiguity	0.230*	0.150	0.149	0.135	0.239*	0.247*
	[0.127]	[0.123]	[0.125]	[0.121]	[0.130]	[0.134]
Colony	0.058	0.138	0.162	0.174	0.131	0.088
	[0.119]	[0.106]	[0.111]	[0.110]	[0.120]	[0.115]
RTA	0.185**	0.082	-0.114	-0.225*	0.043	0.232
	[0.082]	[0.152]	[0.118]	[0.116]	[0.118]	[0.162]
Tariff		-1.953**	-1.706*	-1.646*	-2.003*	-2.409**
		[0.974]	[0.909]	[0.862]	[1.068]	[1.202]
Government		-0.256	0.558***			
		[0.168]	[0.144]			
Competition		1.019***		0.704***		
		[0.197]		[0.135]		
Intellectual		-0.100			0.185	
		[0.134]			[0.121]	
Dispute		-0.352**				-0.103
		[0.150]				[0.156]
WTO	1.632***	1.221***	1.265***	1.252***	1.509***	1.410***
	[0.343]	[0.347]	[0.328]	[0.329]	[0.374]	[0.350]
Number of Observations	2,862	2,840	2,840	2,840	2,840	2,840
R-squared	0.9214	0.9433	0.9381	0.9448	0.9263	0.9229
Pseudo log-likelihood	-4.3E+11	-3.8E+11	-4.0E+11	-3.8E+11	-4.2E+11	-4.2E+11

Notes: ***, **, and * show 1%, 5%, and 10% significance, respectively. In parenthesis is a semi robust standard error. Importer and exporter fixed effects are introduced into all equations.

The effects of RTAs by introducing four provision dummy variables in addition to tariff rates are reported in column (II) in Table 2. The results for the variables included in (I) are qualitatively unchanged though the Contiguity variable has insignificant coefficients. We do not find a significantly positive coefficient for the conventional RTA dummy variable, possibly because the four provision dummy variables capture a large portion of the variable's explanatory power. The tariff rate variable has a significantly negative coefficient, consistent with our expectation. The results for four dummy variables on RTAs' provisions are not necessarily consistent with our expectation. Only the estimated coefficient for competition policy is significantly positive. The dummy variables for government procurement and intellectual property have insignificant coefficients. Furthermore, the dispute settlement provision has significantly negative effects on the trade, which is contrary to the prior expectation. However, these results might result from high correlation among the variables, namely multicollinearity.

Next, we separately introduce four provision variables on RTAs' provisions in a simple way to avoid multicollinearity (columns III to VI in Table 2). In this sort of specification, the average effect of the rest of the crucial elements in RTAs, including that of the rest of four provisions, is captured by a conventional RTA dummy variable. The provision on competition policy has the largest effect on trade values (102%). A similar magnitude of trade creation effects can be found for the dummy variable for government procurement. Its provision increases trade values by 75%. In contrast, the results for the intellectual property and dispute settlement provisions have insignificant coefficients. This intellectual property result may reflect the fact that countries that are WTO members do not make additional significant commitment beyond TRIPS. The insignificant result for dispute settlement may indicate that (at least except for a limited number of large companies) these provisions do not work well beyond the WTO dispute settlement mechanism. Moreover, note that the coefficient for the conventional RTA dummy becomes large when only the dispute settlement dummy is included, and it is small when only the competition policy dummy is included, though it is still insignificant (except in (IV)). Because this coefficient captures the effects of provisions that are not included as independent variables, the results on the conventional RTA dummy are consistent with the previous results of the significant effect of competition policy and the small effect of dispute settlement. An additional important point is that, because these results are obtained even after controlling for a WTO

membership, our estimation reveals that the provisions in RTAs deeper than those in WTO agreements may significantly contribute to trade creation.[13]

To check the robustness of our findings, we estimated our models by restricting RTAs to either old or new ones (RTAs entering into force before and after 1999). The first two columns of Table 3 report the coefficients only for four provision variables, which are obtained from estimating by separately introducing those four variables. While only the competition policy variable has a significantly positive coefficient in the estimation for new RTAs, all provision variables have significantly positive coefficients in the case of old RTAs. The magnitude of coefficients is larger in order of dispute settlement, intellectual property, government procurement, and competition particularly for the estimation for old RTAs. Moreover, note that these differences between new RTAs and old RTAs may indicate the delayed or the "phase-in" effect that RTAs have on trade, as argued by Baier and Bergstrand (2007).[14] Overall, a provision in competition policy seems to have consistently positively impact on trade.

B. Intensive margin versus extensive margin

The previous analysis found that some of the provisions might contribute to increasing trade values among member countries. This section examines the source of such an increase in trade values, an increase in the number of traded variety (extensive margin), or an increase in trade values per variety (intensive margin).

[13] The correlations between WTO and provisions on government procurement, competition policy, intellectual property, and dispute settlement are 0.01, −0.05, 0.09, 0.17, respectively. The correlation between WTO and RTA is 0.17.

[14] Several additional specifications were examined to further check for the robustness of our results. Despite using cross-sectional analysis. we thought we may need to control for the year during which an RTA enters into force. We attempted to introduce such a variable, but it had a serious correlation with the conventional RTA dummy variable. Second, although some countries such as former Soviet Union countries are geographically located in Asia (and classified as ESCAP countries), their identity and orientation could be more European than Asian. To test it, we also tried a specification that drops those countries. The results on RTA provision variables are qualitatively unchanged. Third, one may say that a conventional RTA dummy variable rather than a tariff rate variable should capture the effect of a tariff reduction. The estimation results for equations excluding tariff rates are not qualitatively different from those in Table 3. One important difference is that the coefficient for intellectual property is also estimated to be significantly positive, but its magnitude is small. The detailed results of alternative specifications are available on request.

Following Flam and Nordstrom (2011), we use the count of traded varieties (HS six-digit level) as a measure of the extensive margin, namely the number of HS six-digit codes with positive trade values. Total trade values divided by the count of traded varieties are used as a measure of intensive margin.[15]

Flam and Nordstrom (2011) modified the method in the way suggested by Helpman, Melitz, and Rubinstein (2008), which controls for firm-level heterogeneity and sample selection on the intensive margin by further dealing with the pervasive presence of heteroskedasticity in trade data. Their estimation strategy is as follows: in the first stage, they estimated a gravity equation for the extensive margin of trade, with the addition of "excluded variables" in order not to allow the identification of the extensive margin estimates to depend solely on the normality assumption for unobserved fixed trade costs. Then, the second stage estimates the gravity equation for the intensive margin of trade through the introduction of a polynomial in the predicted number of traded varieties from the first-stage estimation as a proxy for the fraction of exporting firms. Both stages employ the PPML estimation technique to further control for the heteroskedasticity in trade data. Moreover, the use of PPML enables them to include zero trade values per variety in the second stage and, thus, to take care of the selection biases.[16]

We follow the method proposed by Flam and Nordstrom (2011). We have to carefully choose excluded variables in the first-stage estimation. From a theoretical point of view, these variables should be associated with fixed trade costs such as regulation of trading (Helpman et al. 2008). Therefore, we use the sum of an importer's and an exporter's fragility indices. The Fragility Index, prepared by the Center for Systemic Peace,[17] scores each country on both effectiveness and legitimacy in four performance dimensions: security, political, economic, and social. The index ranges from 0 ("no fragility") to 25 ("extreme fragility"). A country's fragility is closely associated with its state capacity to manage conflict; make and implement public policy; deliver essential services and systemic resilience in maintaining system coherence, cohesion, and quality of life;

[15] This definition of extensive and intensive margins is a little different from that in the previous studies listed in the introductory section. For example, in some studies, including Helpman, Meltiz, and Rubinsten (2008), the extensive margin is a measure that indicates whether or not at least one variety is traded. As for other definitions, see, for example, Hummels and Klenow (2005).

[16] With this method, Flam and Nordstrom (2011) found that firm heterogeneity and selection biases are small whereas heteroskedasticity bias is large.

[17] http://www.systemicpeace.org/inscr/inscr.htm

and respond effectively to challenges and crises and to continuing progressive development. Thus, this variable will be well related to fixed trade costs and serves as a good excluded variable.[18]

Table 3. PPML estimation: old RTAs versus new RTAs

	Whole Trade		Extensive Margin		Intensive Margin	
	New	Old	New	Old	New	Old
Government	0.262	1.370***	0.121	0.331**	0.801**	2.744***
	[0.163]	[0.237]	[0.079]	[0.135]	[0.367]	[0.720]
Competition	0.496***	1.375***	0.221***	0.393***	1.992***	3.193***
	[0.153]	[0.237]	[0.071]	[0.133]	[0.686]	[0.855]
Intellectual	0.017	0.806***	-0.133	-0.169	-0.765*	-1.839**
	[0.137]	[0.247]	[0.099]	[0.112]	[0.391]	[0.718]
Dispute	-0.083	0.404*	-0.364***	0.184*	-2.337***	2.113***
	[0.150]	[0.243]	[0.081]	[0.106]	[0.780]	[0.652]

Notes: This table reports the coefficients for four provision variables obtained from estimations by introducing those four variables separately. ***, **, and * show 1%, 5%, and 10% significance, respectively. In parenthesis is a semirobust standard error. Importer and exporter fixed effects are introduced into all equations. "Old" includes FTAs not less than 10 years after entry into force and "New" includes FTAs less than 10 years after entry into force.

Tables 4 and 5 report the results for the estimation on the extensive margin and the intensive margin, respectively. Four points should be noted. First, coefficients for the usual gravity variables mostly have expected signs in both the extensive and intensive margins. Moreover, as is consistent with the findings in previous studies such as Helpman, Melitz, and Rubinstein (2008), estimates for the extensive margin are uniformly smaller in value than those for the intensive margin, although the estimates may not be comparable between these two margins because the dependent variables are qualitatively different. Second, in column

[18] Following Helpman, Melitz, and Rubinstein (2008), we also attempt to use two dummy variables as excluded variables; one dummy indicates whether or not the sum of the number of days and procedures between trading countries is greater than its median, and the other dummy indicates whether or not the sum of the relative costs is greater than its median. The results for our RTA variables do not change qualitatively, but the signs of the coefficients for these excluded variables are inconsistent with our expectations. The detailed estimation results are available on request.

(I), the simple RTA dummy has positive significant coefficients in both margins. Thus, the conclusion of RTAs increases both the number of traded varieties (15%) and the trade values per variety (180%), although the latter magnitude may be too high, probably because of our use of cross-sectional data and/or the inclusion of importer and exporter fixed effects. Third, as is consistent with the finding in Liu (2009), WTO membership significantly increases both margins, although the effects on intensive margin are again too high. Fourth, as expected, the state fragility in trading pairs, which is used as a proxy for fixed trade costs, significantly decreases the number of traded varieties.

The results for the decomposed RTA variables are as follows: first, the coefficients for bilateral tariff rates are insignificant in the extensive margin but significantly negative in the intensive margin. These results may be consistent with the findings in Debaere and Mostashari (2010) that a tariff reduction has a small effect on the extensive margin. Second, the coefficients for intellectual property and dispute settlement are again estimated to be insignificant or even have an unexpected sign in both margins. These results are consistent with the previous findings in Table 2.[19] Third, as with the case of trade values, the provision on competition policy has the most significant effect on both margins, followed by the provision on government procurement. This result seems to make sense. The aim of competition policy is to ensure that anticompetitive behavior is curbed, which typically encourages entry of new domestic or foreign firms. A provision on government procurement can open up trade in goods that were not realized in the past because procurement markets were highly protected. Opening up this large protected market for trade can induce more goods to be traded. Thus, both of these provisions would have positive effects on extensive and intensive margins.

Finally, we estimate our models for intensive and extensive margins by restricting RTAs to only old or new ones (RTAs entering into force before and after 1999). The results are reported in the columns "Extensive Margin" and "Intensive Margin" in Table 3. As in the case of "Whole Trade," we see the delayed effect of

[19] As a further robustness check, we estimated alternative specifications for extensive and intensive margins excluding the WTO dummy and including the intellectual property dummy. In this alternative specification, the coefficient estimate for intellectual property in the extensive margin was insignificant, whereas that for the intensive margin was significantly positive. These results partially support our conjecture that the dummy for WTO membership (and TRIPS) may be picking up the effects from intellectual property.

each provision (except for the intellectual property provision) for both the extensive margin and the intensive margin. The larger and/or significant coefficients are found in the case of old RTAs. Note that, in contrast with the results in Tables 4 and 5, the dispute settlement provision for old RTAs has a significantly positive effect on both intensive and extensive margins.

Table 4. PPML estimation for gravity equations: extensive margin

	(I)	(II)	(III)	(IV)	(V)	(VI)
Distance	-0.384***	-0.391***	-0.370***	-0.371***	-0.376***	-0.378***
	[0.029]	[0.032]	[0.030]	[0.030]	[0.033]	[0.030]
Language	0.200***	0.195***	0.168***	0.163***	0.194***	0.189***
	[0.051]	[0.048]	[0.051]	[0.050]	[0.050]	[0.052]
Contiguity	0.006	-0.029	-0.03	-0.033	-0.018	-0.003
	[0.099]	[0.097]	[0.096]	[0.094]	[0.099]	[0.098]
Colony	0.305***	0.252***	0.316***	0.312***	0.298***	0.290***
	[0.079]	[0.076]	[0.076]	[0.076]	[0.079]	[0.079]
RTA	0.140***	0.267***	0.052	0.019	0.162***	0.279***
	[0.031]	[0.067]	[0.049]	[0.045]	[0.047]	[0.066]
Tariff		-1.931	-1.468	-1.245	-2.263	-2.016
		[1.370]	[1.264]	[1.219]	[1.507]	[1.384]
Government		-0.145	0.174**			
		[0.104]	[0.073]			
Competition		0.480***		0.253***		
		[0.099]		[0.065]		
Intellectual		-0.209***			-0.086	
		[0.079]			[0.071]	
Dispute		-0.227***				-0.185**
		[0.071]				[0.074]
WTO	0.808***	0.625***	0.709***	0.702***	0.699***	0.754***
	[0.190]	[0.192]	[0.190]	[0.189]	[0.194]	[0.199]
Fragility	-0.061	-0.077**	-0.072*	-0.069*	-0.074*	-0.080**
	[0.038]	[0.038]	[0.038]	[0.038]	[0.039]	[0.038]
Number of observations	2,862	2,840	2,840	2,840	2,840	2,840
R-squared	0.8724	0.8789	0.8758	0.8777	0.8728	0.8754
Pseudo log-likelihood	-1.3E+05	-1.2E+05	-1.3E+05	-1.3E+05	-1.3E+05	-1.3E+05

Notes: ***, **, and * show 1%, 5%, and 10% significance, respectively. In parenthesis is a semirobust standard error. Importer and exporter fixed effects are introduced into all equations.

Table 5. PPML estimation for gravity equations: intensive margin

	(I)	(II)	(III)	(IV)	(V)	(VI)
Distance	-2.418***	-2.052***	-2.076***	-2.181***	-2.039***	-1.923***
	[0.767]	[0.615]	[0.649]	[0.675]	[0.627]	[0.590]
Language	0.985***	0.730**	0.698**	0.687**	0.711**	0.730***
	[0.369]	[0.284]	[0.272]	[0.278]	[0.304]	[0.270]
Contiguity	0.417**	0.289*	0.219	0.157	0.228	0.408**
	[0.180]	[0.148]	[0.176]	[0.183]	[0.173]	[0.159]
Colony	1.592**	1.164***	1.422**	1.494**	1.415**	1.133**
	[0.665]	[0.441]	[0.602]	[0.613]	[0.546]	[0.504]
RTA	1.031***	1.572***	0.528***	0.277**	0.821***	1.705***
	[0.289]	[0.418]	[0.166]	[0.135]	[0.292]	[0.429]
Tariff		-8.189***	-6.443**	-5.773**	-9.663***	-8.164***
		[2.921]	[2.515]	[2.277]	[3.666]	[2.969]
Government		-1.143***	0.802**			
		[0.375]	[0.369]			
Competition		2.557***		1.499***		
		[0.808]		[0.495]		
Intellectual		-0.424			0.047	
		[0.372]			[0.226]	
Dispute		-1.473***				-1.147***
		[0.368]				[0.305]
WTO	5.165***	3.575***	4.167***	4.258***	4.049***	3.970***
	[1.747]	[1.168]	[1.466]	[1.491]	[1.413]	[1.377]
Predicted number of varieties	-4.080**	-2.938*	-3.392*	-3.568**	-3.200*	-2.802*
	[1.975]	[1.562]	[1.731]	[1.802]	[1.678]	[1.533]
Square of predicted number	-0.271***	-0.317***	-0.265***	-0.287***	-0.281***	-0.284***
	[0.068]	[0.076]	[0.072]	[0.071]	[0.070]	[0.069]
Cube of predicted number	0.017***	0.020***	0.017***	0.018***	0.018***	0.018***
	[0.005]	[0.005]	[0.005]	[0.005]	[0.005]	[0.005]
Number of observations	2,862	2,840	2,840	2,840	2,840	2,840
R-squared	0.8989	0.9023	0.8994	0.8979	0.9001	0.9003
Pseudo log-likelihood	-1.1E+09	-1.1E+09	-1.1E+09	-1.1E+09	-1.1E+09	-1.1E+09

Notes: ***, **, and * show 1%, 5%, and 10% significance, respectively. In parenthesis is a semirobust standard error. Importer and exporter fixed effects are introduced into all equations.

V. Concluding remarks

The scope of recent regional trade agreements (RTAs) has become much broader by including several provisions such as competition policy or intellectual property and by going beyond WTO obligations. Such "extended RTAs" not only reduce tariff rates but also enhance the cooperation and linkage in various economic fields among member countries. If the existence of each provision has a significant and varying degree of trade creation effects, such differences in RTAs' scope can lead to heterogeneous effects on trade among RTAs even though the magnitude of the tariff reduction is identical. Furthermore, if each RTA provision has different effects on the intensive and extensive margins, we may need to design RTAs that maximize increases in trade values in order to broaden political support for the conclusion of RTAs.

This paper sets out to empirically examine the degree to which each provision in RTAs increases trade values among RTA member countries. To do so, we estimate a gravity equation using the PPML estimation technique (to account for zero trade) with finely disaggregated indicators for each RTA that is in force. While previous studies such as Vicard (2009), Roy (2010), and Baier, Bergstrand, and Fang (2011) focused on different types of RTAs and their depth and coverage, this paper focuses on the provisions included in RTAs. This paper includes a variable for actual tariff rates to capture the primary effect of RTAs and focuses on the role of four types of provisions in RTAs that are relatively easy to identify: provisions on government procurement, intellectual property, competition policy, and dispute settlement. We examine 111 RTAs in force that covered 73 countries in the ESCAP region. The international trade data are based on HS1992 six-digit level aggregated into sections 2 to 4 in the CPC provisional classification for the year 2009.

Our analyses find that the competition policy provision has positive impacts on trade consistently and it has the largest effect on expanding trade, followed by the government procurement provision. We further decompose the increase in trade into extensive and intensive margins. An analysis of these margins reveals that the significant roles of provisions on competition policy and government procurement are also observed. All of our results are robust to various specifications and samples and suggest that including competition policy and government procurement provisions to maximize trade creation effects of RTAs in order to widen political support for concluding RTAs is important.

References

Alvarez, Ana Maria, and Laurence Wilse-Samson (2007). Implementing competition-related provisions in regional trade agreements: Is it possible to obtain development gains? UNCTAD/DITC/CLP/2006/4, United Nations Conference on Trade and Development.

Anderson, James E., and Eric van Wincoop (2003). Gravity with Gravitas: A solution to the border puzzle. *American Economic Review* 93: 170-192.

Asian Development Bank (2008). *How to design, negotiate, and implement a free trade agreement in Asia.* Asian Development Bank.

Baier, Scott L., and Jeffry H. Bergstrand (2004). Economic determinants of free trade agreements. *Journal of International Economics* 64: 29-63.

Baier, Scott L., and Jeffry H. Bergstrand (2007). Do free trade agreements actually increase members' international trade? *Journal of International Economics* 71: 72-95.

Baier, Scott L., Jeffry H. Bergstrand, and Michael Feng (2011). Economic integration agreements and the margins of international trade: A "distorted gravity" approach. Unpublished manuscript.

Besedes, Tibor, and Thomas Prusa (2011), The role of extensive and intensive margins and export growth. *Journal of Development Economics* 96: 371-379.

Brusick, Philippe, Ana Maria Alvarez, and Lucian Cernat (2005). Competition provisions in regional trade agreements: How to assure development gains. UNCTAD/DITC/CLP/2005/1, United Nations Conference on Trade and Development.

Caporale, Guglielmo, Christophe Rault, Robert Sova, and Anamaria Sova (2009). On the bilateral trade effects of free trade agreements between the EU-15 and the CEEC-4 countries. *Review of World Economics* 145: 189-206.

Chaney, Thomas, (2008). Distorted gravity: The intensive and extensive margins of international trade. *American Economic Review* 98 (4): 1707-1721.

Debaere, Peter, and Shalah Mostashari (2010), Do tariffs matter for the extensive margin of international trade? An empirical analysis. *Journal of International Economics* 81: 163-169.

Demidova, Svetlana, and Kala Krishna (2008). Firm heterogeneity and firm behavior with conditional policies. Economics Letters 98: 122-128.

Duval, Yann (2011). Trade facilitation in regional trade agreements: Recent trends in Asia and the Pacific. Working Paper Series 211, United Nations Economic and Social Commission for Asia and the Pacific.

Egger, Peter, Mario Larch, Kevin E. Staub, and Rainer Winkelmann (2011). The trade effects of endogenous preferential trade agreements. *American Economic Journal* 3: 113-143.

Feenstra, Robert (2002). Border effects and the gravity equation: Consistent methods for estimation. *Scottish Journal of Political Economy* 49: 491-506.

Felbermayr, Gabriel J., and Wilhelm Kohler (2006). Exploring the intensive and extensive margins of world trade. *Review of World Economics* 142: 642-674.

Flam, Harry, and Hakan Nordstrom (2011). Gravity estimation of the intensive and extensive margins of trade: An alternative procedure with alternative data. CESifo Working Paper, No. 3387.

Foster, Neil, Johannes Pöschl, and Robert Stehrer (2011). The impact of preferential trade agreements on the margins of international trade. *Economic Systems* 35: 84-97.

Helpman, Elhanan, Marc Melitz, and Yona Rubinstein (2008). Estimating trade flows: Trading partners and trading volumes. *Quarterly Journal of Economics* 123: 441-487.

Hummels, David, and Peter Klenow (2005). The variety and quality of a nation's exports. *American Economic Review* 95: 704-723.

Liu, Xuepeng (2009). GATT/WTO promotes trade strongly: Sample selection and model specification. *Review of International Economics* 17(3): 428-446.

Medvedev, Denis (2010). Preferential trade agreements and their role in world trade. *Review of World Economics* 146: 199-222.

Melitz, Marc (2003). The impact of trade on intra-industry reallocations and aggregate industry productivity. *Econometrica* 71: 1695-1725.

Roy, Jayjit (2010). Do customs union members engage in more bilateral trade than free-trade agreement members? *Review of International Economics* 18: 663-681.

Silva, Santos, and Silvana Tenreyro (2006). The log of gravity. *Review of Economics and Statistics* 88: 41-658.

Vicard, Vincent (2009). On trade creation and regional trade agreements: Does depth matter? *Review of World Economics* 145: 167-187.

Appendix.

List of RTAs in ESCAP Region (111) and Sample Countries (73)

Sample RTAs:

ACFTA, AJCEPA, ANZCERTA, APTA, ARMENIA-EU, ARMENIA-KAZAKHSTAN, ARMENIA-MOLDOVA, ARMENIA-RUSSIAN FEDERATION, ARMENIA-TURKMENISTAN, ARMENIA-UKRAINE, ASEAN, AUSTRALIA-CHILE, AUSTRALIA-THAILAND, AUSTRALIA-US, BHUTAN-INDIA, BIMSTEC, CHINA-CHILE, CHINA-HONG KONG, CHINA-MACAO, CHINA-PAKISTAN, CHINA-PAKISTAN-SERVICES, CHINA-SINGAPORE, CHINA-THAILAND, CISFTA, ECOTA, EFTA-KOREA, EFTA-SINGAPORE, EurAsEC, GEORGIA-ARMENIA, GEORGIA-AZERBAIJAN, GEORGIA-KAZAKHSTAN, GEORGIA-RUSSIAN FEDERATION, GEORGIA-TURKEY, GEORGIA-TURKMENISTAN, GEORGIA-UKRAINE, GSTP, GUAM, INDIA-AFGHANISTAN, INDIA-BANGLADESH, INDIA-CHILE, INDIA-GCC, INDIA-MERCOSUR, INDIA-NEPAL, INDIA-SINGAPORE, INDIA-SRI LANKA, INDIA-THAILAND, JAPAN-BRUNEI, JAPAN-CHILE, JAPAN-INDONESIA, JAPAN-MALAYSIA, JAPAN-MEXICO, JAPAN-PHILIPPINES, JAPAN-SINGAPORE, JAPAN-SWITZERLAND, JAPAN-THAILAND, JAPAN-VIET NAM, KAZAKHSTAN-UZBEKISTAN, KOREA-CHILE, KOREA-SINGAPORE, KYRGYZSTAN-ARMENIA, KYRGYZSTAN-KAZAKHSTAN, KYRGYZSTAN-MOLDOVA, KYRGYZSTAN-RUSSIAN FEDERATION, KYRGYZSTAN-UKRAINE, KYRGYZSTAN-UZBEKISTAN, LAO, PDR-THAILAND, MALAYSIA-PAKISTAN, MALAYSIA-UNITED STATES, MOLDOVA-UZBEKISTAN, MSG, NAFTA, NEW ZEALAND-CHINA, NEWZEALAND-SINGAPORE, NEWZEALAND-THAILAND, PAKISTAN-IRAN, PAKISTAN-MAURITIUS, PAKISTAN-SRI LANKA, PANAMA-SINGAPORE, PATCRA, PICTA, SAFTA, SINGAPORE-AUSTRALIA, SINGAPORE-JORDAN, SINGAPORE-PERU, SPARTECA, THAILAND-BAHRAIN, TRANS-PACIFIC SEP, TURKEY-ALBANIA, TURKEY-BOSNIA AND HERZEGOVINA, TURKEY-CROATIA, TURKEY-EC, TURKEY-EFTA, TURKEY-EGYPT, TURKEY-FYROM, TURKEY-ISRAEL, TURKEY-MOROCCO, TURKEY-PALESTINE, TURKEY-SYRIA, TURKEY-TUNISIA, UKRAINE-AZERBIJAN, UKRAINE-KAZAKHSTAN, UKRAINE-RUSSIAN FEDERATION, UKRAINE-TAJIKISTAN, UKRAINE-TURKMENISTAN, UKRAINE-UZBEKISTAN, UNITED STATES-AFGHANISTAN, UNITED STATES-ASEAN, UNITED STATES-LAO PDR, UNITED STATES-SINGAPORE, UNITED STATES-VIETNAM, US-CA TIFA

Sample Countries:

Africa: Algeria, Morocco, Mozambique, Nigeria, Sudan, Tanzania, United Rep. of, Tunisia, Zimbabwe

America: Argentina, Bolivia, Brazil, Chile, Ecuador, Mexico, Nicaragua, Paraguay, Peru, Trinidad and Tobago, United States of America, Uruguay, Venezuela
Asia: Afghanistan, Armenia, Azerbaijan, Bhutan, China, India, Indonesia, Israel, Japan, Jordan, Kazakhstan, Korea, Kyrgyzstan, Malaysia, Nepal, Oman, Pakistan, Philippines, Russian Federation, Saudi Arabia, Singapore, Sri Lanka, Thailand
Europe: Albania, Austria, Belarus, Belgium and Luxembourg, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Finland, France, Germany, Greece, Hungary, Ireland, Latvia, Macedonia, Moldova, Netherlands, Portugal, Romania, Sweden, Switzerland, Turkey, Ukraine, United Kingdom
Oceania: Australia, Fiji, New Zealand