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Complements or Substitutes? Preferential and Multilateral Trade Liberalization at the Sectoral Level

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Mitsuyo Ando[+], Antoni Estevadeordal[++], and Christian Volpe Martincus[+++]

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Contents

Abstract iv

1. Introduction 1
2. Within and Between Trade Liberalization: What Do We Know? 2
3. Data and Descriptive Evidence 4
4. Empirical Methodology 5
5. Econometric Results 6
   - 5.1 Aggregate Estimates 6
   - 5.2 Sectoral Estimates 7
6. Concluding Remarks 8

References 9

Tables

1. Descriptive Statistics 11
2. Correlation between MFN Changes and Preferential Tariff Changes 11
3. The Relationship between MFN Tariff Changes and Preferential Tariff Changes 12
4. The Relationship between MFN Tariff Changes and Preferential Tariff Changes Robustness Check Exercises 12
5. MFN Tariff Changes, Preferential Tariff Changes, and Import Demand Elasticities 13
6. MFN Tariff Changes, Preferential Tariff Changes, and Revealed Comparative Advantage 14

A.1. FTA networking in extended East Asia 18

A.2. Japan's Free Trade Agreement Negotiations (As of Mar 2009) 19

Figures

1. Average MFN and Preferential Tariffs, All Countries (1985–2005) 15
2. Evolution of the Average MFN (continuous line) and Preferential(dotted line) Tariffs for each Sample Country (1985–2005) 15
3. Box Plots of the MFN and Bilateral Preferential Tariffs for each Sample Country (selected years) 16
4. Sectoral Estimates of the Relationship between MFN Tariff Changes and Preferential Tariff Changes (Left) and Corresponding Kernel Density Estimate (Right) 17
5. Utilization Ratio of AFTA-CEPT, Thailand's Exports (%) 17

Abstract

This paper explores the relationship between preferential and multilateral trade liberalization at the sectoral level using a unique dataset that includes data on most favored nation (MFN) and bilateral preferential tariffs at the 4-digit ISIC level for 11 Latin American countries over the period 1985–2005. We find evidence of heterogeneity across sectors. While in some industries, complementary effects between both kinds of trade liberalization are observed, in others no significant links are detected and—in a few cases—even substitutability seems to prevail. Variation across sectors appears to be systematically related to both import demand elasticities and countries' sectoral comparative advantages.

Keywords: Trade liberalization, regionalism, Latin America

JEL Classification: F13, F14, C20

1. Introduction

Latin America developed a complex web of simultaneous unilateral, multilateral, and preferential agreements as part of structural economic reforms implemented since the mid-1980s and throughout the 1990s (Ando and Estevadeordal, 2004). A natural policy question is how these trade policy reforms have interacted with each other. In particular, have preferential and multilateral trade liberalizations been complements or substitutes? A recent paper by Estevadeordal et al. (2008) shows that regional trade integration seems to have favored general trade liberalization. In other words, regionalism appears to have been a "building block" for multilateral trade liberalization in the case of Latin America.[1] In this paper, we explore whether the aforementioned result holds across sectors. More specifically, we investigate whether sectoral heterogeneity exists for changes in MFN tariffs in response to changes in preferential tariffs. In doing this, we exploit a new rich database, which substantially extends the database used in Estevadeordal et al. (2008). Our estimations suggest that the nature of the relationship between these two trade policy variables does indeed vary significantly across sectors. Furthermore, heterogeneity seems to be linked to specific country-sector characteristics such as import demand elasticities and revealed comparative advantages.

We believe that these results based on the Latin American experience may provide valuable insights to other countries that have been less exposed to regionalism, but are increasingly involved in these kinds of initiatives. This is clearly the case of the Asian countries. Table A.1 in the Appendix presents the status of FTA (Free Trade Agreement) networking in extended East Asia as of March 2009.[2] This table reveals two interesting facts. First, the movement toward regional integration within Asia, through bilateral and plurilateral trade agreements, was lagging behind the rest of the world until recently. Until the mid-1990s, only one FTA had been signed: the Association of Southeast Asian Nations (ASEAN) Free Trade Area (AFTA). Even in this case, preferential tariffs were not significantly utilized in the 1990s. The utilization of preferential tariffs, or the Common Effective Preferential Tariffs (CEPT), however, has recently been expanding at an explosive pace, as the case of Thailand shows in Figure 5. Furthermore, countries in the region have started to rapidly accelerate such movement since the 2000s, particularly the latter half of the 2000s, as many FTAs/PTAs (Preferential Trade Agreements) have been signed, put under negotiations, or at least been subject to feasible study and/or preparatory talks. Second, FTA networking in the region has been developed with ASEAN as its hub in terms of both bilateral and plurilateral trade agreements.[3] As of

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1 See IADB (2009) for a recent map of overlapping preferential trade liberalization.

2 Extended East Asia here includes the countries of the Association of Southeast Asian Nations (ASEAN)+6. "Plus six countries" are composed of the "plus three countries" (People's Republic of China [PRC], Japan, and Korea) and India, Australia, and New Zealand. For some FTAs, their status in Table A.1 is based on the agreement of trade in goods; negotiations may still be ongoing over other areas such as investment and services, even if the agreements are identified as those signed or being effective. Besides the bilateral and plurilateral agreements identified in Table A.1, preliminary talks for ASEAN+3 FTA (EAFTA: East Asia Free Trade Area) and ASEAN+6 FTA (CEPEA: Comprehensive Economic Partnership in East Asia) have started. Furthermore, ASEAN's membership has attempted to strengthen integration by signing the ASEAN Trade in Goods Agreement (ATIGA) in 2008/2009 and proposing the establishment of an ASEAN Economic Community (AEC) with a targeted year of 2015.

3 Most of the plurilateral and bilateral agreements with ASEAN have introduced a system of rules of

March 2009, all “plus six countries” had signed or enforced FTAs/PTAs with ASEAN as a whole, namely ASEAN+1 FTAs/PTAs,except India which has completed the corresponding negotiations. In addition to such plurilateral agreements, the “plus six countries”—particularly Japan, Australia, and New Zealand—have simultaneously made efforts to form bilateral FTAs with ASEAN countries (see Table A.2 in the Appendix for the case of Japan).[4]

The remainder of the paper is organized as follows: Section 2 reviews the relevant literature. Section 3 describes our dataset and presents descriptive evidence on the evolution and distribution of MFN and preferential tariffs in Latin America, and their relationship. Section 4 explains the empirical methodology, Section 5 reports the estimation results, and Section 6 concludes.

2. Within and Between Trade Liberalization: What Do We Know?

There is an extensive and controversial theoretical debate on how the formation of a regional trade agreement (RTA) influences the incentives of governments to set external tariffs, i.e., MFN tariffs. Few studies, however, have empirically examined the linkage between preferential and multilateral trade liberalizations, which is largely due to the difficulty in obtaining a comprehensive dataset of tariffs, especially in the case of preferential tariffs. This section reviews some empirical studies analyzing the relationship between these kinds of trade liberalization and discusses what we can learn from the existing literature.

Using data on 51 industries for 1968–1983, Magee and Lee (2001) show that the enlargement of the European Economic Community (EEC) from 6 to 12 members in 1967 induced members to reduce external tariffs over the following 15 years. Limao (2006) and Karacaovali and Limao (2008) analyze the impact of preferential trade liberalization on multilateral trade liberalization at the Uruguay Round in the United States (US) and European Union (EU), respectively. They find that liberalization was smaller in products where preferences were granted. More specifically, Limao (2006) finds that the US cuts in MFN tariffs were smaller for products imported under PTAs relative to similar products that the US imported only from non-members. The subsequent study by Karacaovali and Limao (2008) finds that the EU reduced its MFN tariffs on goods not imported under PTAs by almost twice as much as it did on PTA goods. The intuition on such a negative relationship between multilateral and preferential

origin that allow a choice of either regional value content (RVC) or common change in tariff classification (CTC). The stronger points of plurilateral agreements would be that (i) the cumulative rules of origin in calculating RVC can be applied when RVC is selected and (ii) the common CTC can be applied when CTC is chosen, thereby, facilitating intra-regional trade. On the other hand, the stronger point of bilateral agreements would be the possibility to achieve higher degrees of liberalization in some sectors without enforcing consolidation at lower degrees of liberalization.

[4] Some preferential tariffs are lower in bilateral agreements than in plurilateral agreements. The opposite holds in other cases. It depends on the timing of enforcement, which influences the number of tariff reduction for phasing-out tariffs, and the baseline tariffs for preferential tariffs. See JETRO (2009b and 2009c) for the case of Japan and Malaysia–Indonesia–Thailand.

trade liberalization is that these large countries offer preferences on a unilateral basis to extract concessions from the recipients in nontrade areas, so they would tend to resist liberalization to prevent erosion of preferences.

The studies referred to above concentrate on large and developed countries. Related papers focusing on developing countries include Baldwin and Seghezza (2007), and Estevadeordal et al. (2008).[5] Based on tariff-line data on the level of MFN and preferential tariffs for a large cross-section of developed and developing countries in 2005, Baldwin and Seghezza (2007) find that these tariffs are complements, not substitutes, since margins of preferences tend to be low or zero for products where nations apply high MFN tariffs. They argue that the positive correlation between MFN and preferential tariffs might be caused by sectoral vested interests that (co-) determine both types of tariffs. Estevadeordal et al. (2008), on the other hand, analyze the relationship between changes in MFN tariffs and (lagged) changes in preferential tariffs using a rich dataset on tariffs at the 4-digit International Standard Industry Classification (ISIC) level (approximately 100 industries) over the period 1990–2001. They conclude that regional trade liberalization has had a complementary effect on general trade liberalization in the case of Latin American countries, particularly for those that are not members of customs unions.[6]

The question arises whether the above-mentioned overall pattern of the effects of preferential trade liberalization on multilateral trade liberalization uniformly prevails across sectors. Sectoral heterogeneity may appear for several reasons.[7] One possible rationale can be found in the model developed by Richardson (1993). In this model, external tariffs of a country joining an FTA should fall in industries in which imports have been diverted from the rest of the world to the FTA partner.[8] An alternative explanation is provided by Stoyanov (2009). He analyzes the effect of foreign lobbying on domestic trade policy when the country is a member of a preferential trade agreement using post-North American Free Trade Agreement (NAFTA), industry-level trade data from Canada. He finds that the activity of foreign lobbyists is a significant determinant of trade policy. Sectors in which foreign firms without preferential market access are politically organized tend to receive less protection. Second, the heterogeneity of foreign lobbies is also important. The presence of organized lobbying groups in an FTA partner country tends to raise trade barriers, while organized lobbying groups of exporters from outside of the FTA is associated with less protection. In sum, the existence of groups of foreign firms

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5 See also Foroutan (1998) and Bohara et al. (2004). Foroutan (1998) examines trade and trade policy in over 50 developing countries and claims that integrating countries have been more active than non-integrating countries in reducing multilateral trade barriers. Bohara et al. (2004) show that increased preferential imports vis-à-vis the domestic industry's value added led to lower external tariffs in Argentina, especially in sectors that experienced trade diversion.

6 In a related theoretical paper, Ornelas (2008) demonstrates that global free trade is unattainable even in a fully cooperative world if governments have political motivations, and in such an environment, RTAs can help move the world towards a welfare-superior equilibrium because members of RTAs also tend to reduce their MFN tariffs when they lower trade barriers against one another.

7 Countries may decide whether to grant few preferences (i.e. lower preferential tariffs) taking the MFN as given, in which case no significant relationship between preferential and MFN would be observed (see Baldwin and Seghezza, 2007).

8 See also Bohara et al. (2004).

with varying lobbying capacities and the heterogeneity of these groups, depending on whether they are based in countries that are or are not members of the FTAs, may affect the relationship between multilateral trade liberalization and preferential trade liberalization at the sectoral level.[9]

In the next sections, we investigate whether there are sectoral differences in the response of MFN changes to preferential tariff changes and attempt to contribute to this literature by exploring what other factors may be driving these potential differences.

3. Data and Descriptive Evidence

We have collected tariff data, both MFN and preferential, on a bilateral basis and disaggregated at the 4-digit ISIC Revision 2 level for 11 countries in Latin America (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela) over the period 1985–2005. This database substantially extends that used in Estevadeordal et al. (2008), which has similar information from 1990–2001. Importantly, it also covers the period 1985–1989. As we will see below, in this period, most sample countries implemented unilateral trade reforms and signed agreements that deepened regional trade integration and eventually led to more comprehensive arrangements such as MERCOSUR and the Andean Community.

Table 1 reports moments of the distributions of the two key policy variables in our analysis: MFN and bilateral preferential tariffs. The figures suggest that trade liberalization in the region has been significant. Average and median (p50) MFN tariffs declined roughly 75% over the sample period, from approximately 40.0% in 1985 to around 10.0% in 2005. Expectedly, tariffs cuts were more pronounced within the region. On average, preferential tariffs diminished from about 40.0% to 5.0% when all countries were considered, and to less than 3.0% in the case of those nations that are members of customs unions. This can be clearly seen in Figures 1 and 2, which show the evolution of average MFN and preferential tariffs for all and each of the countries in the sample. In many countries, these tariffs experienced sharp declines between 1985 and 1990, which explains the relevance of including this sub-period in the study. Dispersion, as measured by the coefficient of variation (C.V. in Table 1), fell in the case of MFN tariffs but increased in the case of preferential tariffs. This primarily reflects asymmetric tariff treatments across partners in the region, depending on whether or not they are in the same main trading arrangement (e.g., MERCOSUR vs. Andean Community), as well as disparities in these treatments across sectors and within such arrangements. This is evident in Figure 3, which presents box plots of both MFN and bilateral preferential tariffs

[9] Ando (2007) illustrates how foreign firms can influence a government's decision-making process on setting MFN tariffs by looking at the experience of Mexico. The main reason why Mexican authorities reduced MFN tariffs unilaterally in 2004 and 2006 seems to be that they feared withdrawal of manufacturing multinational enterprises (MNEs) from Mexico. A considerable number of parts and components are imported from East Asian countries with which Mexico does not have trade agreements. On the other hand, many products are imported at lower imported prices with lower preferential tariffs under various trading arrangements in force. Given that, Mexico realized the importance of the urgent reduction of MFN tariffs in order to avoid withdrawal of MNEs from Mexico. In other words, the development of RTAs sometimes accelerates trade liberalization on a multilateral basis.

for 1985, 1990, 1995, 2000, and 2005. This figure confirms that enormous heterogeneity still exists in tariffs across countries, trading partners, and sectors.

In Table 2, we explore the relationship between the two main variables in our econometric analysis. More specifically, we regress the change of MFN tariffs on the current and lagged changes of bilateral preferential tariffs and the change of preferential tariffs on the current and lagged changes of MFN tariffs, in both cases controlling for country, partner, sector, and year fixed effects. We find that there is a strong contemporaneous correlation between preferential tariff reduction and multilateral tariff reduction. Notice, however, that whereas lagged preferential tariff reductions positively and significantly predict MFN tariff reductions (Columns 2 and 3), lagged MFN tariff diminutions do not positively predict preferential tariffs diminutions (Columns 5 and 6). Further, simple correlations indicate that MFN tariff changes are more correlated with lagged preferential tariff changes (0.184) than with lagged MFN tariff changes (0.134), which suggests that MFN tariff cuts may be more influenced by past preferential tariff reductions than by past MFN tariff declines. In contrast, the reverse is not true. Preferential tariff diminutions are more correlated with past preferential tariff diminutions (0.111) than with past MFN diminutions (0.093). This evidence informally provides support to the hypothesis that multilateral and regional trade liberalizations are complements. In the next section, we describe the methodology that we use to formally investigate whether this is actually the case.

4. Empirical Methodology

Our empirical approach is based on that proposed by Estevadeordal et al. (2008). We nevertheless deviate in two main aspects. First, instead of compressing the partner dimension by using the minimum preferential tariff, we consider all bilateral preferential tariffs. This enables us to estimate an "average relationship" between preferential and multilateral trade liberalizations across trading partners in the region. Second, we allow this relationship to vary across sectors by performing separate estimations for each 4-digit sector identified in the ISIC Revision 2.

Formally, our baseline estimation equations are:

$$\Delta MFN_{ijkt} = \gamma_i + \gamma_j + \gamma_k + \gamma_t + \beta \Delta PREF_{ijkt-1} + \varepsilon_{ijkt} \quad (1)$$

$$\Delta MFN_{ijkt} = \gamma_i + \gamma_j + \gamma_k + \gamma_t + \beta \Delta PREF_{ijkt-1} + \rho CU_{ijt} + \delta \Delta CUPREF_{ijkt} + .\varepsilon_{ijkt} \quad (2)$$

where $MFN_{iikt} = MFN_{ikt}\ \forall j$ (by definition) represents the multilateral (MFN) tariff of country *i* in industry *k* in year *t* and $\Delta MFN_{ikt} = MFN_{ikt} - MFN_{ikt-1}$; $PREF_{ijkt}$ denotes the preferential tariff of country *i* in industry *k* for goods coming from country *j* in year *t* and ; CU_{ijt} is a binary $\Delta PREF_{ijkt-1} = PREF_{ijkt-1} - PREF_{ijkt-2}$ variable that takes the value of 1 if countries *i* and *j* are members of the same customs union in year *t* and 0 otherwise; $\Delta CUPREF_{ijkt} = CU_{ijt} \Delta PREF_{iijkt-1}$; $\gamma_i, \gamma_j, \gamma_k, \gamma_t$ are country, partner, sector, and year fixed effects, respectively; and ε_{ijkt} is the error term.

If $\beta \rangle 0$, then countries reduce their MFN tariffs as they lower preferential tariffs. In this case, preferential trade liberalization would be a building block for multilateral trade liberalization. On the other hand, if $\beta \langle 0$, then countries raise (or lower by less) their MFN tariffs as they lower preferential tariffs. In this case, regional trade liberalization would accordingly be a "stumbling block" for general trade liberalization.

Admittedly, there might be shocks that affect the incentives of countries to liberalize or restrict trade both multilaterally and regionally. These shocks would then result in a positive correlation between ΔMFN_{ikt} and, $\Delta PREF_{ijkt-1}$ thus acting as confounding factors. As discussed in Estevadeordal et al. (2008), if this were the case, we should not expect to observe systematic differences in the relationship between preferential and MFN tariffs in FTAs and customs unions. Hence, uncovering the existence of these differences would help confirm the identification of the effect of interest. This is precisely what we do in Equation (2). More precisely, if δ is statistically significant, then there would be a differential impact of preferential liberalization on the incentives to liberalize vis-à-vis non-member countries in the customs unions, which would be evidence supporting the hypothesis that countries lower tariffs on outsiders because they are offering preferential treatment as opposed to the hypothesis that unobserved sector-specific shocks induce countries to liberalize or restrict trade generally. In short, this would be consistent with a theoretically-based causal relationship between both types of trade liberalizations.

As discussed before, the relationship between multilateral and regional trade liberalizations is likely to be non-uniform across sectors. We therefore estimate it at the sectoral level. Formally, for each sector *k*, we estimate the following equations:

$$\Delta MFN_{ijkt} = \gamma_i^k + \gamma_j^k + \gamma_t^k + \beta^k \Delta PREF_{ijkt-1} + \varepsilon_{ijkt} \quad (3)$$

$$\Delta MFN_{ijkt} = \gamma_i^k + \gamma_j^k + \gamma_t^k + \beta^k \Delta PREF_{ijkt-1} + \rho^k CU_{ijt} + \delta^k \Delta CUPREF_{ijkt} + .\varepsilon_{ijkt} \quad (4)$$

In the next section, we report the estimates of these equations and some variants aimed at checking the robustness of the results.

5. Econometric Results

5.1 Aggregate Estimates

Columns 1 and 2 of Table 3 show ordinary least squares (OLS) estimates of Equations (1) and (2) pooling over sectors for the whole sample period, respectively. These estimates reveal that MFN tariffs decline following a reduction in preferential tariffs. In other words, multilateral and preferential trade liberalizations appear to be complements. Notice, however, that this does not seem to hold for countries which are members of CUs. In fact, in this case, MFN tariffs increase slightly in response to cuts in preferential tariffs. In Columns 3 and 4, we replicate the same estimations for the sample period used in Estevadeordal et al. (2008): 1990–2001. Notice that the estimated coefficients of interest are similar to those for the whole period, which informally suggests that potential structural breaks are not likely to be a major concern in our estimations. Further, we

should mention that our estimates are smaller than those reported in Estevadeordal et al. (2008). A possible reason is that we are fully exploiting the partner dimension by using all observations instead of just taking the minimum. Thus, while we are computing in some sense an average effect, Estevadeordal et al.(2008) are more likely to be capturing the upper tail of the distribution of these effects.

We next perform several robustness checks. First, we use an alternative specification of the fixed effects. More specifically, we include country–partner–sector fixed effects instead of country, partner, and sector fixed effects to account for all time-invariant factors that are specific to a sector for a particular country pair (Columns 1 and 2 of Table 4). Second, we re-estimate Equations (1) and (2), excluding the observations where the preference margin is too small to have an effect given the costs to comply with the rules of origin. In other words, if the margin of preference is too small, the costs involved in complying with these rules can be larger than the gains associated with the preferential treatment, which would be the equivalent of no preferences. We only keep those observations for which the preference margin exceeds 2.5 percentage points (Estevadeordal et al., 2008). Third, external tariffs can also be affected by preferential imports because they determine the extent of the terms-of-trade loss incurred by the preference-giving country vis-à-vis its partners. In order to control for the effects of preferential imports on the incentive to liberalize against outsiders, we include interaction terms of the share of imports from each partner in the sector with an indicator variable capturing the preferential margins. Import shares are inputted as observed in the initial period to avoid potential endogeneity problems. The preferential margin indicator, in a manner consistent with the criterion applied above, takes the value of one if this margin is above 2.5 percentage points and zero otherwise. The results of these exercises, which all confirm our main findings are reported in Table 4.

Estimation results clearly indicate that preferential trade liberalization has led to multilateral trade liberalization, especially in the case of FTA members. The question then arises whether this holds for all sectors. If not, which sectors may be driving this result? We will address this issue in the next sub-section.

5.2 Sectoral Estimates

We estimate the relationship between general and regional trade liberalizations for each sector identified in the 4-digit ISIC Revision 2. Estimates are presented in Figure 4. The left panel shows the estimated effect of lagged changes in bilateral preferential tariffs on MFN tariff changes for each of these sectors, whereas the right panel is a kernel density estimate of the distribution of these sectoral effects, both based on Equation (3). The figure reveals that there is important heterogeneity across sectors.

In particular, even though preferential trade liberalization seems to have favored multilateral trade liberalization in many sectors, there are a relatively large number of sectors where no systematic association between these liberalizations is observed and there are even a few sectors for which substitutability effects are detected. The latter sectors include, among others, ocean and coastal fishing, crude petroleum and natural gas production, chemical and fertilizer mineral mining, grain mill products, manufacture of prepared animal feeds, fur dressing and dyeing industries, manufacture of containers

and boxes of paper and paperboard, manufacture of fertilizers and pesticides, manufacture of drugs and medicines, and petroleum refineries. Many of these industries are heavy or raw material sectors, where market power may play a role. We explicitly assess whether this is the case by expanding Equations (1) and (2) to include country-sector import demand elasticities and their interactions with those variables in the baseline estimation equation as additional covariates.[10] Estimation results are reported in Table 5. These results indicate that there is a stronger positive relationship between preferential and multilateral trade liberalizations for those sectors with larger import demand elasticities. This formally confirms that weaker complementarity and even substitutability are likely to be observed in sectors where less competitive conditions prevail.

In addition, comparative advantage considerations may also contribute to explain the differences across sectors (and countries). Expectedly, countries are more likely to cut external tariffs once they have lowered regional tariffs in those sectors where they have an overall comparative advantage. We explore this possibility by including a measure of a country's revealed comparative advantage in each sector in Equations (1) and (2), along with its interactions with the remaining variables, and estimating this modified version of the basic regression equations.[11] Estimates are presented in Table 6. These estimates clearly suggest that there is a complementarity effect between general and regional trade liberalizations and that this effect is stronger for those sectors where countries exhibit revealed comparative advantage.[12]

6. Concluding Remarks

Using a rich database, including both MFN and bilateral preferential tariffs for 11 Latin American countries over the period 1985–2005, we have analyzed the relationship between intra-regional and extra-regional trade liberalization going beyond the "average" or the aggregated level In particular, we have investigated whether there is heterogeneity in the response of MFN tariffs to changes in preferential tariffs at the sectoral level and found that, indeed, such heterogeneity is present. According to preliminary estimates, this heterogeneity is related to differences in import demand elasticities and revealed comparative advantages.

We believe that these findings can provide helpful insights into trade policy design for countries such as Asian countries that are becoming increasingly engaged in regional trade initiatives.

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10 These elasticities have been taken from Broda et al. (2006). Unfortunately, we must drop observations corresponding to Paraguay as elasticities were not available for this country.

11 Our measure of revealed comparative advantage is based on the indicator used by Proudman and Redding (2000).

12 Similar results are obtained when using the value of the comparative advantage indicator in the first sample year to minimize endogeneity concerns. These results are available from the authors upon request.

References

Ando, M., 2007. Impacts of Japanese FTAs/EPAs: Preliminary Post-evaluation. *The International Economy*. 11. pp. 65-88.

Ando, M. and A. Estevadeordal. 2004 Trade Policy Formation in Latin America and Asia-Pacific: A Comparative Analysis. *21st Century COE Discussion Paper No.*2004-27.

Baldwin, R. and E. Seghezza. 2007. Are Trade Blocs Building or Stumbling Blocks? New Evidence. *CEPR Discussion Paper* 6599.

Bohara, A., K. Gawande, and P. Sanguinetti. 2004. Trade Diversion and Declining Tariffs: Evidence from MERCOSUR. *Journal of International Economics*. 64(1). pp. 65-88.

Broda, C., J. Greenfield and D. Weinstein. 2006. From Groundnuts to Globalization: A Structural Estimate of Trade and Growth. *NBER Working Paper* 12512.

Estevadeordal, A., C. Freund and E. Ornelas. 2008. Does Regionalism Affect Trade Liberalization Towards Non-members? *Quarterly Journal of Economics*. 123(4). pp. 1531-1575.

Foroutan, F. 1998. Does Membership in a Regional Preferential Trade Arrangement Make a Country More or Less Protectionist? *World Economy*. 21.

Inter-American Development Bank (IADB). 2009. Bridging Regional Trade Agreements in the Americas (Report by the Integration and Trade Sector).

Japan External Trade Organization (JETRO). 2009a. The usage of AFTA: over 60 percent for Thailand's exports to Indonesia. Tsusho Koho. Prepared by Seiya Sukegawa from Asia and Oceania Division, Overseas Research Department. 9 March. http://www.jetro.go.jp/biznews/ (in Japanese).

_____. 2009b. Preference of the JMEPA to the AJCEP for Japan's exports to Malaysia., Tsusho Koho. Prepared by Seiya Sukegawa from Asia and Oceania Division,Overseas Research Department. 30 January. http//www.jetro.go.jp/biz news/ (in Japanese).

_____. 2009c. Preference of the AJCEP to the JTEPA only for 532 tariff lines for Japan's exports to Thailand. Tsusho Koho. Prepared by Seiya Sukegawa from Asia and Oceania Division, Overseas Research Department. 3 June. http://www.jetro.go. jp/biznews/ (in Japanese).

Karacaovali, B. and N. Limao. 2008. The Clash of Liberalizations: Preferential VS Multilateral Trade Liberalization in the European Union. *Journal of International Economics*. 74(2). pp. 299-327.

Limao, N. 2006. Preferential Trade Agreements as Stumbling Blocks for Multilateral Trade Liberalization: Evidence for the U.S. *American Economic Review*. 96(3).

Magee, S. and H. Lee. 2001. Endogenous Tariff Creation and Tariff Diversion in a Customs Union. *European Economic Review*. 45(3). pp. 495-518.

Ornelas, E. 2005. Trade Creating Free Trade Areas and the Undermining of Multilateralism. *European Economic Review*. 49(7). pp. 1717-1735.

Ornelas, E. 2008. Feasible Multilateralism and the Effects of Regionalism. *Journal of International Economics*. 74(1). pp. 202-224.

Proudman, and S. Redding. 2000. Evolving Patterns of International Trade. *Review of International Economics*. 8(3).

Richardson, M. 1993. Endogenous Protection and Trade Diversion. *Journal of International Economics*. 34(3-4). pp. 309-324.

Stoyanov, A. 2009. Trade Policy of a Free Trade Agreement in the Presence of Foreign Lobbying. *Journal of International Economics*. 77(1). pp. 37-49.

Table 1: Descriptive Statistics

Variable	Year	Average	SD	CV	p10	p50	p90
	All Countries						
MFN Tariff	1985	41.566	25.848	0.622	17.720	37.000	77.900
	2005	11.399	6.718	0.589	5.000	10.000	18.940
Preferential Tariff	1985	39.362	24.807	0.630	16.835	34.540	74.100
	2005	5.448	5.133	0.942	0.570	4.130	11.920
	Countries: Member of Customs Unions						
MFN Tariff	1985	45.395	27.585	0.608	17.050	40.830	83.750
	2005	11.539	5.400	0.468	5.000	10.500	18.950
Preferential Tariff	1985	43.064	26.454	0.614	16.130	38.470	78.620
	2005	2.567	2.567	1.000	0.000	2.050	5.300

CV = coefficient of variation, MFN = most favored nation, SD = standard deviation.
Note: p10, p50, and p90 are the 10^{th} percentile, 50^{th} percentile, and 90^{th} percentile, respectively, of the distribution of the variables.The members of customs unions include countries that will be (1985) or are (2005) member of a customs union.

Source: Authors' preparation based on IDB-INT Tariff Database.

Table 2: Correlation between MFN Changes and Preferential Tariff Changes

Variable	∆MFN Tariff			∆Preferential Tariff		
	(1)	(2)	(3)	(4)	(5)	(6)
∆Preferential Tariff	0.973***	0.965***				
	(0.007)	(0.008)				
∆Lagged Preferential Tariff		0.066***	0.064***			
		(0.003)	(0.004)			
∆MFN Tariff				0.845***	0.824***	
				(0.003)	(0.003)	
∆Lagged MFN Tariff					-0.023***	-0.004
					(0.001)	(0.003)
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Partner Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Sector Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	217560	206440	206440	217560	206440	206440
R^2	0.848	0.836	0.184	0.850	0.836	0.197

MFN = most-favored nation.
Note: Robust standard errors in parentheses; * significant at the 10%; ** significant at 5%; ***significant at 1%.

Source: Authors' preparation based on IDB-INT Tariff Database.

Table 3: The Relationship between MFN Tariff Changes and Preferential Tariff Changes

Variable	1985-2005		1990-2001	
	(1)	(2)	(3)	(4)
ΔLagged Preferential Tariff	0.064***	0.065***	0.074***	0.085***
	(0.004)	(0.004)	(0.005)	(0.006)
Customs Union*ΔLagged Preferential Tariff		-0.076***		-0.097***
		(0.007)		(0.007)
Customs Union		0.453***		0.174***
		(0.031)		(0.021)
ΔLagged Preferential Tariff + Customs Union*ΔLagged Preferential Tariff		-0.013***		-0.008**
		[0.003]		[0.004]
Country Fixed Effects	Yes	Yes	Yes	Yes
Partner Fixed Effects	Yes	Yes	Yes	Yes
Sector Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Country-Partner-Sector Fixed Effects				
Observations	206440	206440	108210	108210
R^2	0.184	0.185	0.144	0.145

MFN = most-favored nation.
Note: Robust standard errors in parentheses; * significant at the 10%; ** significant at 5%; ***significant at 1%.

Source: Authors' preparation based on IDB-INT Tariff Database.

Table 4: The Relationship between MFN Tariff Changes and Preferential Tariff Changes Robustness Check Exercises

Variable	Fixed Effects		Rules of Origin		Import Shares	
	(1)	(2)	(3)	(4)	(5)	(6)
ΔLagged Preferential Tariff	0.052***	0.053***	0.049***	0.052***	0.061***	0.063***
	(0.005)	(0.005)	(0.006)	(0.006)	(0.049)	(0.005)
Customs Union*ΔLagged Preferential Tariff		-0.073***		-0.076***		-0.078***
		(0.007)		(0.007)		(0.006)
Customs Union		0.922***		0.247***		0.307***
		(0.073)		(0.007)		(0.030)
Import Share 1985 * Lagged Preference Margin					-0.153***	-0.319***
					(0.027)	(0.076)
Import Share 1985 * Lagged Preference Margin * Customs Union						0.252***
						(0.078)
ΔLagged Preferential Tariff+Customs Union*ΔLagged Preferential Tariff		-0.019***		-0.024***		-0.014***
		[0.004]		(0.004)		(0.004)
Country Fixed Effects			Yes	Yes	Yes	Yes
Partner Fixed Effects			Yes	Yes	Yes	Yes
Sector Fixed Effects			Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Variable	Fixed Effects		Rules of Origin		Import Shares	
	(1)	(2)	(3)	(4)	(5)	(6)
Country-Partner-Sector Fixed Effects	Yes	Yes				
Observations	206440	206440	134487	134487	192520	192520
R^2	0.196	0.197	0.199	0.200	0.187	0.188

MFN = most-favored nation.
Robust standard errors in parentheses; * significant at the 10%; ** significant at 5%; ***significant at 1%.

Source: Authors' preparation based on IDB-INT Tariff Database.

Table 5: MFN Tariff Changes, Preferential Tariff Changes, and Import Demand Elasticities

Variable	(1)	(2)	(3)	(4)
∆Lagged Preferential Tariff	0.066*** (0.005)	0.065*** (0.005)	0.069*** (0.005)	0.068*** (0.005)
Customs Union*∆Lagged Preferential Tariff			-0.086*** (0.007)	-0.087*** (0.007)
Customs Union			0.295*** (0.037)	0.297*** (0.037)
Demand Elasticity	-0.002*** (0.000)	-0.001*** (0.000)	-0.002*** (0.000)	-0.002*** (0.001)
Customs Union * Demand Elasticity			0.004*** (0.001)	0.003*** (0.001)
Demand Elasticity * ∆Lagged Preferential Tariff		0.000*** (0.000)		0.000** (0.000)
Demand Elasticity * Customs Union * ∆Lagged Preferential Tariff				0.000 (0.000)
∆Lagged Preferential Tariff + Customs Union*∆Lagged Preferential Tariff			-0.018*** (0.005)	-0.019*** (0.005)
∆Lagged Preferential Tariff + Demand Elasticity * ∆Lagged Preferential Tariff		0.065*** (0.000)		0.068**** (0.000)
Country Fixed Effects	Yes	Yes	Yes	Yes
Partner Fixed Effects	Yes	Yes	Yes	Yes
Sector Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	118180	118180	118180	118180
R^2	0.206	0.206	0.207	0.207

MFN = Most-favored nation.
Note: Robust standard errors in parentheses; * significant at the 10%; ** significant at 5%; ***significant at 1%.

Source: Authors' preparation based on IDB-INT Tariff Database.

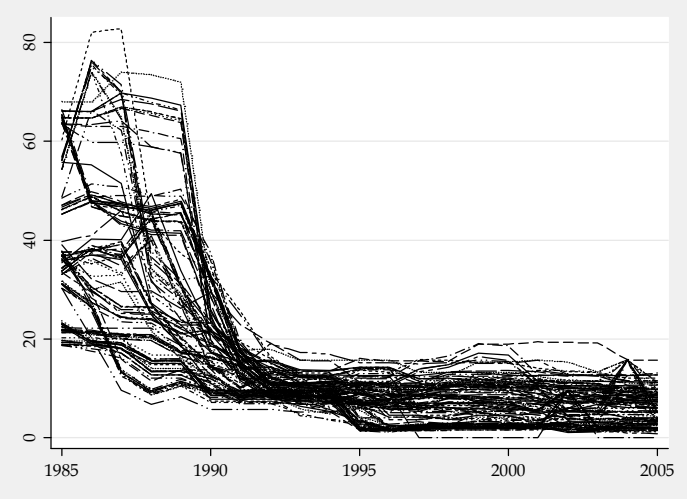
Table 6: MFN Tariff Changes, Preferential Tariff Changes, and Revealed Comparative Advantage

Variable	Contemporaneous Revealed Comparative Advantage			
	(1)	(2)	(3)	(4)
ΔLagged Preferential Tariff	0.069*** (0.005)	0.045*** (0.006)	0.072*** (0.005)	0.048*** (0.007)
Customs Union*ΔLagged Preferential Tariff			-0.085*** (0.006)	-0.064*** (0.007)
Customs Union			0.259*** (0.030)	0.306*** (0.030)
Revealed Comparative Advantage	-0.025*** (0.006)	0.020*** (0.007)	-0.037*** (0.007)	0.014* (0.008)
Customs Union * Revealed Comparative Advantage			0.077*** (0.020)	0.026 (0.020)
Revealed Comparative Advantage * ΔLagged Preferential Tariff		0.030*** (0.003)		0.030*** (0.003)
Revealed Comparative Advantage * Customs Union * ΔLagged Preferential Tariff				-0.025*** (0.004)
ΔLagged Preferential Tariff + Customs Union*ΔLagged Preferential Tariff			-0.013*** (0.003)	-0.016*** (0.004)
ΔLagged Preferential Tariff + Revealed Comparative Advantage * ΔLagged Preferential Tariff		0.075*** (0.005)		0.078*** (0.005)
Country Fixed Effects	Yes	Yes	Yes	Yes
Partner Fixed Effects	Yes	Yes	Yes	Yes
Sector Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	183050	183050	183050	183050
R^2	0.194	0.195	0.195	0.196

MFN = most-favored nation.
Note: Robust standard errors in parentheses; * significant at the 10%; ** significant at 5%; ***significant at 1%.

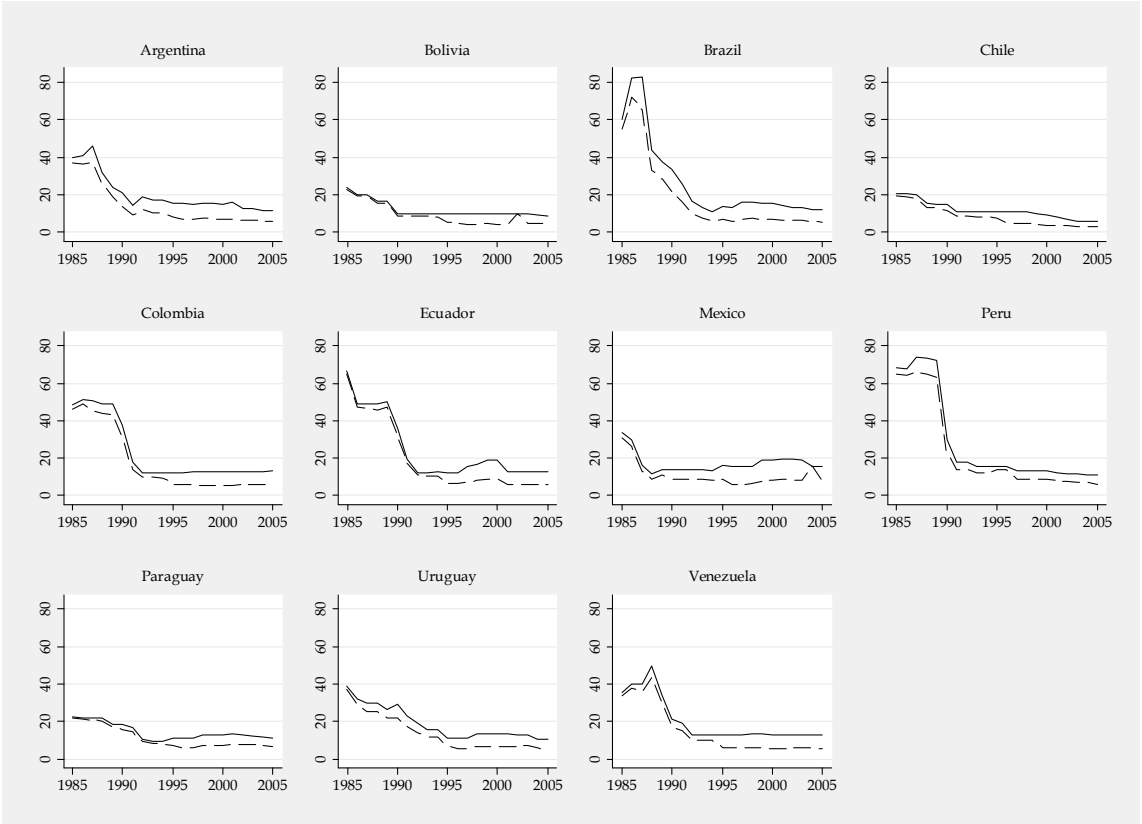
Source: Authors' preparation based on IDB-INT Tariff Database.

Figure 1: Average MFN and Preferential Tariffs, All Countries (1985–2005)



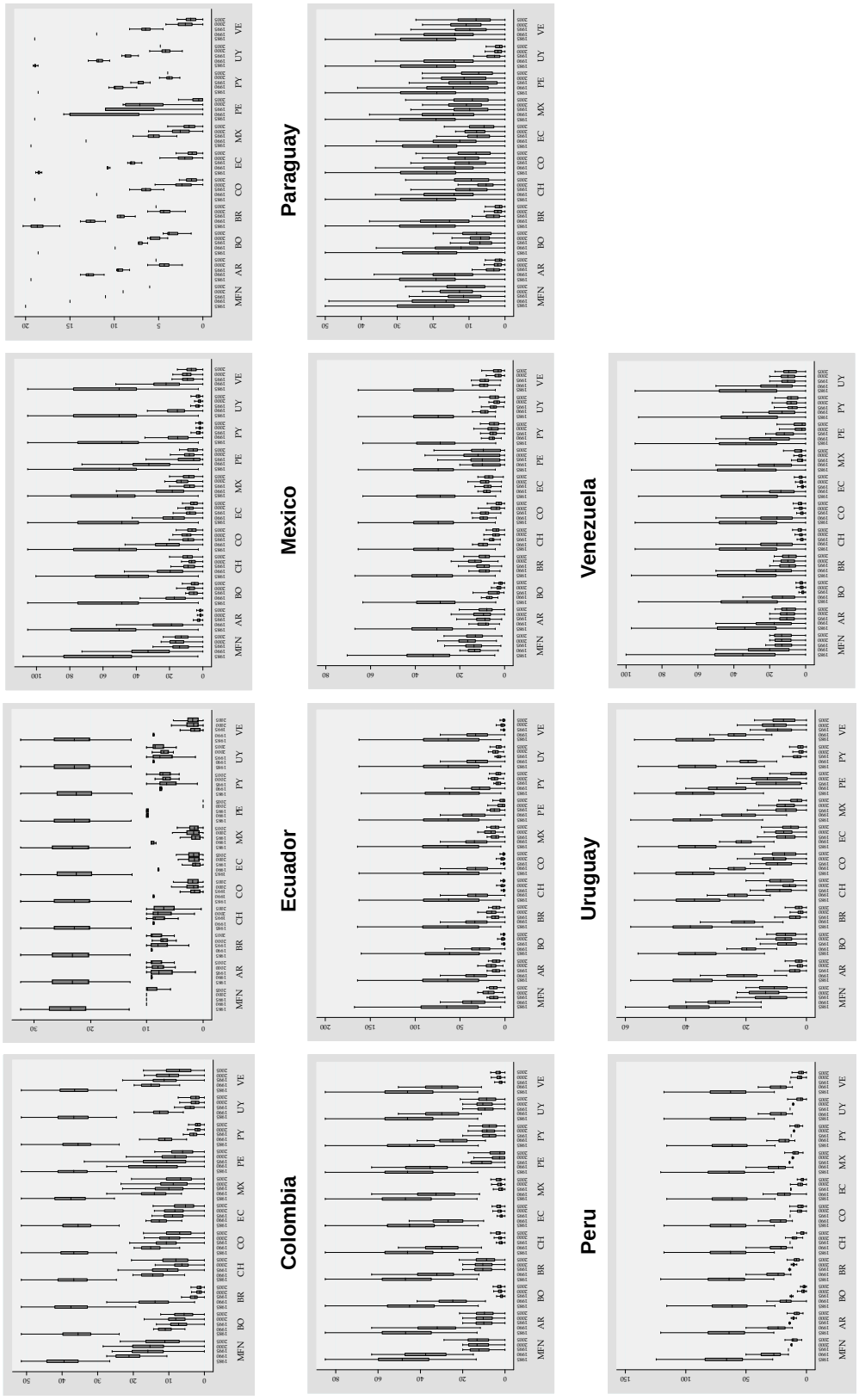
Source: Authors' preparation based on IDB-INT Tariff Database.

Figure 2: Evolution of the Average MFN (continuous line) and Preferential (dotted line) Tariffs for each Sample Country (1985–2005)



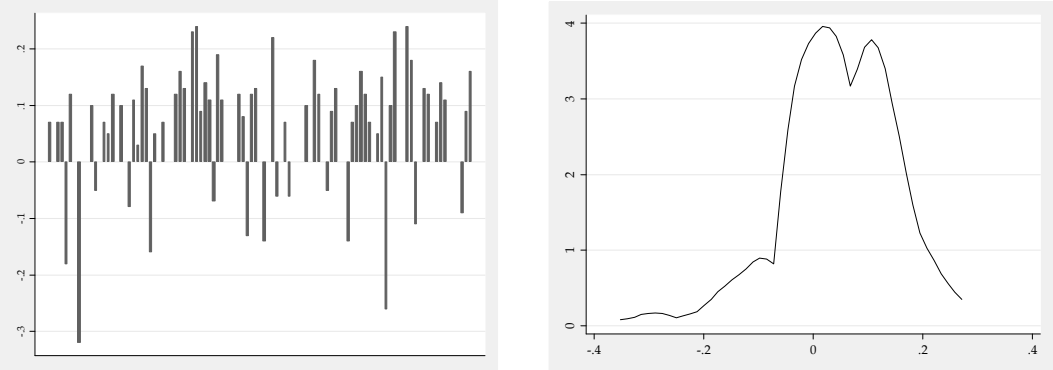
Source: Authors' preparation based on IDB-INT Tariff Database.

Figure 3: Box Plots of the MFN and Bilateral Preferential Tariffs for each Sample Country (selected years)



Source: Authors' preparation based on IDB-INT Tariff Database.

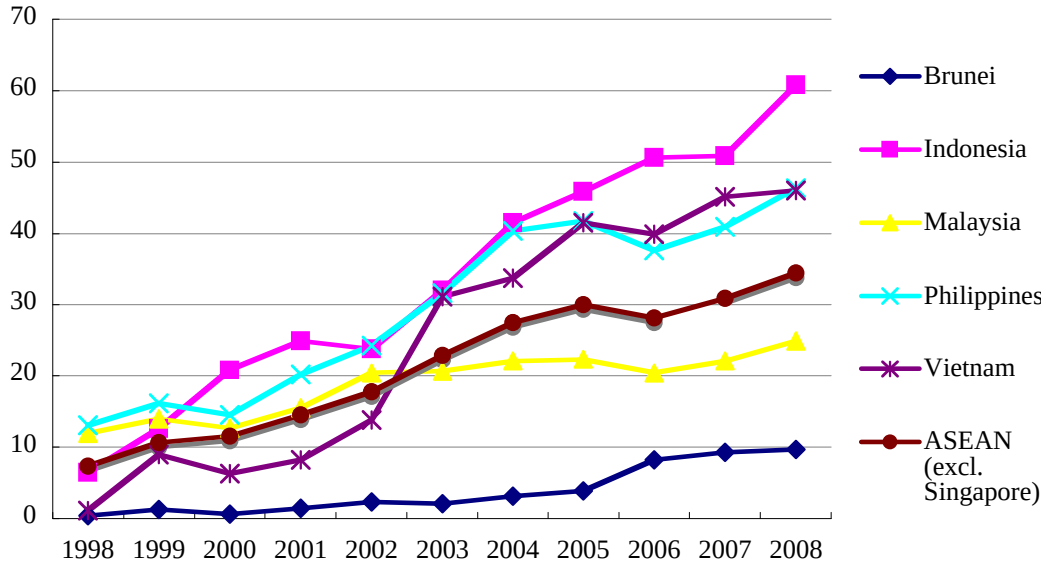
Figure 4: Sectoral Estimates of the Relationship between MFN Tariff Changes and Preferential Tariff Changes (Left) and Corresponding Kernel Density Estimate (Right)



Note: The kernel density estimate is based on the Epanechnikov kernel. In the figure on the left, sectors are placed in increasing order of their ISIC codes.

Source: Authors' preparation based on IDB-INT Tariff Database.

Figure 5: Utilization Ratio of AFTA-CEPT, Thailand's Exports (%)



AFTA = Association of Southeast Asian Nations (ASEAN) Free Trade Area, CEPT= common effective preferential tariff.
Notes: Singapore is excluded for ASEAN as a whole since it has already removed tariffs on all but six items. The percentage shows the portion of exports.

Source: JETRO (2009a).

Appendix

Table A.1 FTA networking in extended East Asia

(As of March 2009)

	Japan	Korea	PRC	ASEAN	Brunei	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam	CLM	India	Australia	New Zealand
Japan		● (suspended)	▲	⦿ : 2008 -	⦿ : 2008	⦿ : 2008	⦿ : 2006	⦿ : 2008	⦿ : 2002	⦿ : 2007	⦿		●	●	
Korea	● (suspended)		▲	⦿ : 2007 -					⦿ : 2006				●	▲	▲
PRC	▲	▲		⦿ : 2005 -					⦿ : 2009				▲	●	⦿ : 2008
ASEAN	⦿ : 2008 -	⦿ : 2007 -	⦿ : 2005 -	⦿ : 1993 -	(1992)	(1992)	(1992)	(1992)	(1992)	(1992)	(1995)	(LM:1997/ C:1999)	●*	⦿	⦿
Brunei	⦿ : 2008			(1992)		(1992)	(1992)	(1992)	(1992)	(1992)	(1995)	(LM:1997/ C:1999)			⦿ : 2006
Indonesia	⦿ : 2008			(1992)	(1992)		(1992)	(1992)	(1992)	(1992)	(1995)	(LM:1997/ C:1999)		▲	
Malaysia	⦿ : 2006			(1992)	(1992)	(1992)		(1992)	(1992)	(1992)	(1995)	(LM:1997/ C:1999)	●	●	▲
Philippines	⦿ : 2008			(1992)	(1992)	(1992)	(1992)		(1992)	(1992)	(1995)	(LM:1997/ C:1999)			
Singapore	⦿ : 2002	⦿ : 2006	⦿ : 2009	(1992)	(1992)	(1992)	(1992)	(1992)		(1992)	(1995)	(LM:1997/ C:1999)	⦿ : 2005	⦿ : 2003	⦿ : 2001
Thailand	⦿ : 2007			(1992)	(1992)	(1992)	(1992)	(1992)	(1992)		(1995)	(LM:1997/ C:1999)	▲	⦿ : 2005	⦿ : 2005
Vietnam	⦿			(1995)	(1995)	(1995)	(1995)	(1995)	(1995)	(1995)		(LM:1997/ C:1999)			
CLM				(LM:1997/ C:1999)	(LM:1997/ C:1999)	(LM:1997/ C:1999)	(LM:1997/ C:1999)	(LM:1997/C: 1999)	(LM:1997/ C:1999)	(LM:1997/ C:1999)	(LM:1997/ C:1999)				
India	●	●	▲	●*			●		⦿ : 2005	▲				▲	▲
Australia	●	▲	●	⦿		▲	●		⦿ : 2003	⦿ : 2005			▲		⦿ : 1983
New Zealand		▲	⦿ : 2008	⦿	⦿ : 2006		▲		⦿ : 2001	⦿ : 2005			▲	⦿ : 1983	

PRC = People's Republic of China.

CLM = Cambodia (C), Lao PDR (L), and Myanmar (M).

Notes: ⦿: signed or in effect, ● : under negotiation or agreed to negotiate (●*: negotiation completed), ▲: feasibility study or preparatory talks. The year indicates when the concerned FTA was in force. "-" after the year means that some ASEAN countries are under the corresponding FTAs in force and others follow later. Dark blue indicates FTAs signed before or in the 1990s, blue indicates FTAs signed in the first half of the 2000s, and light blue indicates FTAs signed in the second half of the 2000s. For some FTAs, their status in this table is based on the agreement of trade in goods; negotiations may be still ongoing over other areas such as investment and services even if the agreements are identified as those signed or in effect here.The year in parenthesis shows the year for the corresponding ASEAN country to be a member of ASEAN/AFTA.

Sources: Websites of trade ministries in each country and others including JETRO website (http://www.jetro.go.jp/world/).

Table A.2: Japan's Free Trade Agreement Negotiations (As of Mar 2009)

Counterpart	Negotiation started	Agreement signed	Entry into force
Singapore	Jan 2001	Jan 2002	Nov 2002
Mexico	Nov 2002	Sep 2004	Apr 2005
Malaysia	Jan 2004	Dec 2005	Jul 2006
Chile	Feb 2006	Mar 2007	Sep 2007
Thailand	Feb 2004	Apr 2007	Nov 2007
Indonesia	Jul 2005	Aug 2007	Jul 2008
Brunei	Jun 2006	Jun 2007	Jul 2008
ASEAN	Apr 2005	Apr 2008	Dec 2008**
Philippines	Feb 2004	Sep 2006	Dec 2008
Viet Nam	Jan 2007	Dec 2008	
Switzerland	May 2007	Feb 2009	
GCC	Sep 2006		
India	Jan 2007		
Australia	Apr 2007		
(Korea)	Dec 2003	(Nov 2004 negotiation suspended)	

** Effective between Japan and Lao PDR, Myanmar, Singapore, and Viet Nam in Dec 2008; Brunei in Jan 2009; and Malaysia in Feb 2009. Other countries are expected to follow.
GCC = Gulf Cooperation Council.

Source: MOFA, GOJ (http://www.mofa.go.jp).

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