

KEIO UNIVERSITY
MARKET QUALITY RESEARCH PROJECT
(A 21st Century Center of Excellence Project)

KUMQRP DISCUSSION PAPER SERIES

DP2004-27

Trade Policy Formation in Latin America and Asia
: A Comparative Analysis

Mitsuyo Ando*
Antoni Estevadeordal**

Abstract

The 1990s witnessed a process of major trade liberalization around the world. This process has been particularly important in developing countries where a combination of unilateral trade reforms, multilateral liberalization, and a resurgence of regional integration has changed the structure of trade protection. As one of the projects of our group, “International issues and Asia”, this paper analyzes the trade policy formation in East Asia and Latin America. This paper makes a detailed analysis of trade liberalization in the two regions by exploring traditional tariff-barrier measures and non-tariff measures as well as discriminatory trade practices under free trade agreements, and addresses the similarities and differences. The differences in the trade policy formation between the two regions seem to significantly influence the development of international production networks in these regions. The paper also explores trade policy formation in both regions, using a factor analysis approach to understand the underlying factors behind the use of a given set of trade policy instruments. This analysis allows us to draw certain inferences regarding similarities and differences in the use of instruments by country and by sector.

* Research Associate, 21st century COE program, Faculty of Economics, Keio University

** Principal Trade Economist, Integration, Trade and Hemispheric Issues Division, Integration and Regional Programs Department, Inter-American Development Bank

Trade Policy Formation in Latin America and Asia:
A Comparative Analysis

Mitsuyo Ando^{*}

Antoni Esteveordal^{**}

The previous version of this paper was presented at the LAEBA Panel at the FIEALC Meeting “Globalization in Asia and Latin America: Trade, Investment and Finance” on September 24, 2003 in Osaka, Japan.

^{*} Keio University. Email: m-ando@mbj.nifty.com

^{**} Integration and Regional Programs Department. Inter-American Development Bank. Email: antonie@iadb.org

Abstract

The 1990s witnessed a process of major trade liberalization around the world. This process has been particularly important in developing countries where a combination of unilateral trade reforms, multilateral liberalization, and a resurgence of regional integration has changed the structure of trade protection. This paper makes a detailed analysis of trade liberalization in Latin America and Asia by exploring traditional tariff-barrier measures and non-tariff measures as well as discriminatory trade practices under free trade agreements. The paper first highlights similarities and differences in the overall structure of protective measures among countries in the two regions, once all trade measures are accounted for. The differences significantly influence the development of international production networks in the two regions. Next, the paper explores trade policy formation in both regions, using a factor analysis approach to understand the underlying factors behind the use of a given set of trade policy instruments. This analysis allows us to draw certain inferences regarding similarities and differences in the use of instruments by country and by sector.

Contents

- I. Introduction
- II. Trade Policy Regimes in Latin America and Asia
 - Overview of Trade Protection
 - Regional Integration
- III. Explaining Trade Policy Formation: A Factor Analysis Approach
 - Data
 - Analysis
- IV. Conclusion

I. Introduction

Trade policy will surely form a prominent chapter in any account of the economic history of Latin America and/or Asia in the XX century. Throughout that period, external events played a key role in determining the path of development for most countries in those regions. Decades from now, when economic historians look back at the turn of the millennium, they will unquestionably remark on the role played by external trade policies reformulated by most countries during the 1990s. Among all structural reforms implemented in recent times, trade liberalization stands out as the strategy most consistently advocated worldwide throughout the period. Although the extent of liberalization has varied from country to country, this period will clearly be seen as the most open era since the years immediately preceding the Great Depression of the 1930s. Latin America and Asia differ in the way trade liberalization has been implemented. Nonetheless, in both these regions, a complex web of simultaneous unilateral, multilateral, and preferential (bilateral or regional) liberalization, involving tariff and non-tariff measures, has characterized the structure of the liberalization process.

These intermeshed policy efforts have defined a new paradigm in both regions for the design and implementation of trade policy. This new paradigm was first given the name “Open Regionalism” by the Economic Commission for Latin America and the Caribbean (ECLAC). More recently, in a similar but more theoretical fashion, Ethier (1998) analyzed this same phenomenon, referring to it as “New Regionalism.” Ethier’s analysis first notes that most countries (particularly the smaller ones) implemented extensive unilateral reforms and liberalized trade on a multilateral basis either prior to or at the same time as they negotiated new preferential trade agreements. He then points out that when countries of different relative sizes are involved, the burden of liberalization has often been on the smaller country. Next, he explains that trade policy reforms have usually involved far-reaching objectives, beyond a traditional opening of the market. Finally, he notes a dominant regional bias, in a geographical sense, in most preferential trade agreements.

One of the main contributions of introducing the concept of “New Regionalism” is to refocus the analysis of trade liberalization and regional integration policies beyond traditional static analysis. The research now analyzes strategic, institutional, and political considerations in the design of trade policies at the country and sub-regional levels; the combined working of the various liberalization policies or instruments; and the impact of these policies in the medium term, not only on trade flows but also on investment decisions, productivity levels, and growth performance. The goal of this paper is to provide an exploratory analysis of the components of this complex mosaic of trade policies in Latin America and Asia, and some of the interactions among the various approaches. First, the paper provides an overview of trade policy paradigms in Latin America and Asia in recent years. Second, it quantifies the scope and degree of liberalization achieved on several fronts through various trade-related measures. Finally, with a statistical tool, a factor analysis, interactions between the different measures and levels of liberalization are reviewed, in order to understand the process of trade policy formation in these two regions. Due to the limited data availability, our analysis is restricted to seven countries in each region: Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela in Latin America; and China, Indonesia, Korea, Malaysia, Philippines, Singapore, and Thailand in Asia.

II. Trade Policy Regimes in Latin America and Asia

During the 1990s, tariffs were reduced through multilateral trade negotiations in both developed and developing countries. In particular, the Uruguay Round Agreements in 1994 and the establishment of the World Trade Organization (WTO) in 1995 promoted further trade liberalization on a multilateral basis through tariff reduction as well as an increase in the number of tariff bindings.¹ The Uruguay Round also made important progress in reducing some cross-border types of measures other than tariffs, or non-

¹ Through the Uruguay Round negotiations (1986-1994), the percentage of bound tariff lines, for instance, increased from 78 percent to 99 percent for developed countries, from 21 percent to 73 percent for developing countries, and from 73 percent to 98 percent for transition economies (WTO website, http://www.wto.org/english/tratop_e/schedules_e/goods_schedules_e.htm).

tariff measures (NTMs), though governments have tended to implement more subtle forms of protection through other instruments such as technical standards.² On the other hand, the last decade also witnessed a movement toward regional integration and the development of free trade agreements (FTAs), regional trade agreements (RTAs), or preferential trade agreements (PTAs), which allow their member countries to enjoy preferential tariffs that are even lower than Most Favored Nation (MFN) tariffs. In other words, trade liberalization during the last decade proceeded on a bilateral or regional basis as well. In this section, we provide a comparative overview of trade policies and measures in Latin America and Asia, as well as a comparative assessment of the level of regional integration achieved by countries in the region through FTAs or PTAs.

Overview of Trade Protection

Latin America and Asia are not exceptions to the above-described global trend, and have remarkably reduced tariffs since the late 1980s, especially during the mid-1990s (Table 1). Nonetheless, the two regions' trade-policy strategies are far from identical. First, the strategy for tariff binding and establishing tariff rates is different; wider coverage of tariff bindings and higher MFN tariffs in Latin America and narrower coverage of tariff bindings and lower MFN tariffs in Asia. In Latin America, the percentage of bound tariff lines increased, from 38 percent for industrial products and 36 percent for agricultural products prior to the Uruguay Round, to 100 percent for both sectors thereafter.³ In other words, tariff ceilings now exist on all products in this region at the WTO bound rates: on average 35 percent for Argentina, 32 percent for Brazil, 25 percent for Chile, 52 percent for Colombia, 49 percent for Mexico, 32 percent for Peru, and 39 percent for Venezuela in 1999-2000 (Table 2). Although MFN applied tariff rates are lower than these bound rates, none of the countries still has tariffs below 10 percent on average: 16 percent for Argentina, 16 percent for Brazil, 10 percent for Chile,

² See, for instance, Inter-American Development Bank (2002, Figure 3.7) for the coverage of NTMs (overall NTMs, quantitative measures, technical measures) among 11 Latin American countries, and Ando (2002, Table 3 and Table A-1) for the coverage of various types of NTMs by type and sector among 13 APEC member economies.

³ See Inter-American Development Bank (2002) and the WTO website (http://www.wto.org/english/thewto_e/whatis_e/eol/e/wto01/wto1_45.htm) for tariff bindings in Latin America.

12 percent for Colombia, 18 percent for Mexico, 14 percent for Peru, and 13 percent for Venezuela in 1999-2000.

In contrast, Asian countries except China do not bind all tariff lines (Table 3). Coverage of bound tariffs is 94 percent for Indonesia, 91 percent for Korea, 62 percent for Malaysia, 63 percent for the Philippines, 85 percent for Singapore, and 73 percent for Thailand in 2000 and 100 percent for China in 2003; some of them are quite far from 100 percent, which has been achieved by all the countries in Latin America.⁴ Average tariffs *per se*, however, are lower in Asia; the WTO bound rates and MFN applied rates are 37 percent and 7 percent for Indonesia, 20 percent and 14 percent for Korea, 17 percent and 9 percent for Malaysia, 28 percent and 7 percent for the Philippines, and 7 percent and 0 percent for Singapore, and 40 percent and 15 percent for Thailand, respectively, and 16 percent (applied rate) for China in 2000.⁵ Although China and Thailand have relatively high tariffs, compared with other Asian countries, average MFN tariff rate in the region is approximately seven percent, which is much lower than the rate exceeding 10 percent in Latin America (Figures 1 and 2).⁶ These indicate that although some tariffs could theoretically be raised without a ceiling since they are not bounded, contrary to Latin America, overall tariff rates in terms of ad valorem tariffs are actually lower in Asia.

Second, the two regions take different approaches to import substitution and export promotion. In East Asia, “the dual-track approach” has been kept since the 1970s; i.e., both import-substituting industries and export-oriented industries have been promoted at the same time. East Asian countries, however, have gradually shifted their focus on export orientation from import substitution.⁷ Particularly since the mid 1980s or the

⁴ China bound all tariffs at the accession of WTO.

⁵ Korea’s simple average of MFN applied tariffs also exceeds 10 percent as China and Thailand do. However, average MFN tariffs for all the manufacturing sectors are less than 10 percent in 2003 as Table 3 presents. The high simple average tariff rate is due to much higher tariffs imposed on agriculture and fishery sectors than those on manufacturing sectors, particularly high out-quota tariffs on them. The import weighted applied rate in 2001 lowers to the level of 8 percent.

⁶ The bar-graph in Figures 1 and 2 show median levels. Data used for these figures are at the Standard International Trade Classification (SITC) three-digit level. A more detailed explanation of the source-data for these figures is provided in Section IV.

⁷ From the 1970s to the mid-1980s, East Asian countries applied selective introduction of FDI primarily

early 1990s, while keeping trade protection for limited import-substituting industries, they have implemented various types of trade and FDI facilitation measures including policies for export promotion, which help reduce service link costs, to aggressively attract incoming FDI, formulate industrial clusters, and develop international production/distribution networks.⁸

As one of the export-oriented policies, Asian countries have taken a duty drawback system, i.e., the system of refunds of duties and indirect taxes on imported intermediate inputs used in producing exported goods. Under this system, export-oriented affiliates of multinational enterprises (MNEs), who account for a large share of imports particularly in manufacturing sectors such as general machinery and electric machinery, pay extremely low tariffs on imported intermediate goods used for the production of exports. Their import and export activities contribute to the low average tariff rates expressed as a percentage of import values, i.e., custom duty/import ratios. As Figure 3 clearly shows, average tariff rates in terms of custom duty/import ratios are adjusted down to the rates much below the MFN rates. Even for China and Thailand, who applies tariffs of more than 10 percent on average in 2000, the rates are below four percent.

In East Asia, trade in machinery goods, particularly machinery parts and components, are astonishingly large. Figure 4 presents the shares of machinery goods and machinery parts and components in each country's total exports and imports, where machinery goods include general machinery, electric machinery, transport equipment, and precision machinery (HS 84-92).⁹ The shares of machinery goods for most of the East

in import-substituting industries. Although FDI for export promotion was also invited, competing domestic industries were typically protected by the policy that limited the activities of export-oriented FDI, for example, to geographically segregated export-processing zones. After the mid-1980s, they switched their FDI hosting policy from the selective acceptance policy to basically "accept everybody" policy. See Kimura (2003) and Ando and Kimura (2004) for further discussion on the drastic changes in export promotion and development strategies applied by the East Asian developing economies.

⁸ Pangestu (2003, Tables 17.1 and 17.2) provides excellent review on the evolution of industrial policies in East Asia in the 1950s-1990s as well as various policies and measures for promoting exports implemented in Asian countries.

⁹ The figure plots countries from the one with the highest share of machinery parts and components' exports.

Asian countries reach as high as 40 percent or even higher up to around 70 percent. Moreover, the shares of parts and components in machinery trade are also very high: more than half of machinery trade is of machinery parts and components. These evidences suggest a large portion of back-and-forth transactions of parts and components (intermediate goods) of manufactured products among countries in the region, utilizing various types of trade facilitation measures including the duty drawback system, and the formation of international production/distribution networks.¹⁰

In contrast, Latin America has not actively implemented those types of export-oriented policies. Rather, the import-substituting policies seem to be reflected in their tariff rates by sector: tariffs in manufacturing sectors are almost same or even higher than those in agricultural sectors in some countries such as Argentina and Brazil while they are basically much lower in Asia (Tables 2 and 3). Of course, Latin American countries provide many member countries of FTAs/PTAs with preferential tariffs that are much lower than MFN tariffs since they have concluded numerous FTAs/PTAs, forming an intricate trade web among countries in the region. As Figures 1 and 2 clearly show, the gap between MFN tariffs and preferential tariffs, or the marginal preference, is much wider in Latin American than in Asia. These lower preferential tariffs may contribute to an increase in exports to/imports from the member countries. However, non-members are doubtlessly forced to bear much higher MFN tariffs when they export to Latin America.¹¹

In fact, Latin American countries, with Mexico as a notable exception, present by far lower shares of machinery exports than those observed for countries in Asia (Figure 4).

¹⁰ See Ando and Kimura (2004) and Kimura and Ando (2003, 2004a, 2004b) for micro-data analysis of MNEs (Japanese firms and U.S. firms) and discussion on the formation of international production/distribution networks in East Asia and other regions. Also, see Ando (2005) for the analysis on the development of trade structure and vertical production sharing across borders in East Asia in the 1990s.

¹¹ Since local supporting industries are typically immature in developing countries, MNEs must often import some key parts and components from the home country. Thus, MNEs from non-member countries would face serious disadvantages in competition with intra-regional MNEs. This is what actually occurred in Mexico, and a number of Japanese firms actually closed their operations in Mexico. See Casanova (2003, appendix) for a list of selected companies that have transferred operations from Mexico to other countries.

In particular, the shares of machinery parts and components are pretty low: 26 percent for Mexico, 11 percent for Brazil, and less than 5 percent for the rest of countries. Furthermore, the shares of machinery imports are much higher than the shares of exports. These indicate that manufacturing production activities in Latin America are of import-substituting type, and that Latin America is not forming international production/distribution networks yet except the networks between the United States and Mexico.

Third, the types of tariffs implemented are different. Latin America imposes only ad valorem tariffs on imports. Chile, a typical country, has applied uniform tariffs since trade liberalization started in the late 1980s. In contrast, Asia still implements not only ad valorem tariffs but also specific tariffs or a combination of the two.¹² In 2003, for instance, China has 52 specific tariff lines out of 7,445 tariff lines, Indonesia 12 out of 7,542, Korea 31 out of 11,261, Malaysia 83 out of 10,458, Singapore 4 out of 6,036, and Thailand 93 out of 6,204 (Table 3). The sectors in which specific tariffs are implemented vary among countries, but many of the tariff lines with specific tariffs are commonly found in sectors such as agriculture and chemicals. Since specific tariffs cannot automatically converted into ad valorem rates, analyses based on ad valorem tariffs may in some cases underestimate the degree of trade protection created by tariffs as a whole in Asia.

Fourth, methods for protecting specific products are different. In Latin America, standard deviations of MFN tariffs are small (less than 10 percent), except for agricultural sector in Mexico, indicating that MFN tariffs are relatively uniform across products (Table 2). In addition, when dispersion (standard deviation) among MFN tariffs is compared to dispersion among preferential tariffs, Latin America shows greater spreads among preferential tariffs (Figures 1 and 2). These suggest that Latin America is perhaps protecting specific products by imposing differentiated levels of preferential

¹² See Trade Analysis and Information System (TRAINS) database, the ASEAN secretariat website (<http://www.aseansec.org/menu.asp?action=4&content=16>), and the WTO website (http://www.wto.org/english/tratop_e/schedules_e/goods_schedules_e.htm) for detailed information on tariffs, including specific tariffs in Asia.

tariffs in addition to higher MFN tariffs that are relatively uniform across products. In contrast, Asia shows greater spreads among MFN tariffs than those among preferential tariffs (Figures 1 and 2). Moreover, Asian countries present variation across sectors in MFN tariff rates, the percentage of bound tariff lines, and application of specific tariffs (Table 3). These facts imply that Asia seems to favor the use of MFN tariffs over preferential tariffs as methods for effectively protecting specific products.

So far, we have discussed tariff policies in the two regions, focusing on their differences. Yet differences are also reflected in NTM policies. Figures 5 and 6 present the incidence of NTMs in terms of the percentage of tariff lines subject to NTMs, i.e., frequency ratio, by the type of NTMs.¹³ The NTMs examined here include price-control measures, automatic licensing measures, quantity control measures, monopolistic measures, and technical measures. In addition to data on frequency ratios of by-type measures, the figures also provide data on frequency ratios of core NTMs, non-core NTMs, and overall NTMs.¹⁴ Core NTMs consist of price control measures and quantity control measures. All other measures are considered non-core NTMs. The figures illustrate that both Latin America and Asia implement NTMs, in particular quantity-control and technical measures.

Two significant differences are observed in the figures. First, the scope of NTM application considerably varies. The incidence of NTMs overall is more than 50 percent in Latin America, but is less than 10 percent in Asia. It should be borne in mind, however, that the UNCTAD database, Trade Analysis and Information System (TRAINS), used for frequency-ratio calculations, are provided on a reporting base. Data for Latin America have been firmly corrected with additional data collection in the Inter-American Development Bank, while data for Asia have not. Even so, a difference in the range of products subject to NTMs is clearly apparent. Second, the principal measures implemented in the two regions are dissimilar. Latin America as a whole generally depends upon technical measures while Asia mainly employs quantity control measures.

¹³ See the data description in the Appendix for how these frequency ratios are formulated.

¹⁴ The classification of NTMs basically follows the United Nations Conference on Trade and Development (UNCTAD) classification. Data used for these figures are at the SITC one-digit level.

Regional Integration

Regionalism, as discussed above, was growing in popularity at the same time as unilateral and multilateral efforts were gaining headway in the last decade. Nowhere in recent history has regionalism developed faster than in Latin America during the 1990s (Table 4). More than 30 new agreements have already been signed.¹⁵ As a part of structural economic reforms implemented since mid 1980s and throughout the 1990s, countries in Latin America developed a complex web of simultaneous unilateral, multilateral, and preferential (bilateral or regional) agreements to liberalize trade, resulting in so-called “spaghetti-bowl” of trade agreements, with two trade hubs, i.e., Chile and Mexico.¹⁶ Figure 7 presents progress on regional integration in terms of trade and regional agreements in Latin America and Asia at the close of 2003. As the figure clearly demonstrates, the situations of the two regions display sharp contrasts.

Until the early 1990s, most existing FTAs in Latin America were “partial” agreements, in the sense that they covered only a few sectors (the elimination of tariffs and NTMs on the cross-border movement of goods) and usually contained slow and painstaking tariff phase-out programs, as negotiated within the Latin American Integration Association (LAIA, known in Spanish as ALADI). A turning point in the region is the signing of the North-American Free Trade Agreement (NAFTA) by United States, Canada, and Mexico, which has faster and more universal tariff phase-out programs, applied to larger percentages of goods that are liberalized immediately, and also covers those areas such as investment, trade in services, competition policy, government procurement, intellectual property rights and others. The NAFTA-style was quickly adopted as a prototype by Chile and Mexico.

¹⁵ This count does not include pre-existing preferential regimes with partial coverage of products from previous decades, i.e., partial agreements under the LAIA framework.

¹⁶ See Ethier (1998) and Devlin and Estevadeordal (2001) for a discussion of the concept of New Regionalism.

In 1995, Argentina, Brazil, Paraguay, and Uruguay launched a customs union, i.e., Mercado Comun del Cono Sur (MERCOSUR), building upon previously signed bilateral “Complementary Economic Agreements” (*Acuerdos de Complementación Económica* or “ACE” in Spanish). Mexico and Chile started to consolidate their positions as strategic trade hubs in the region in the mid 1990s. In 1994, Mexico secured three major agreements with Colombia and Venezuela (known as the G-3 Agreement), Costa Rica, and Bolivia. Building on this momentum, Mexico concluded agreements with Nicaragua in 1997 and the Northern Triangle in 2000, and successfully broadened and deepened its agreement with Chile in 1998, based on the NAFTA model. The most far-reaching process to date has been the Economic Partnership, Political Coordination and Cooperation Agreement between Mexico and the European Union (EU). Mexico signed a broad framework agreement with the EU in 1997 and signed a comprehensive FTA with the EU in 1999.

Chile, as another trade hub in the region, acquired its status by gradually building a solid network of agreements.¹⁷ It first signed most basic agreements with Mexico in 1991, Venezuela in 1992, Colombia in 1993, and Ecuador in 1994. This network was expanded by Chile’s 1996 association agreement with MERCOSUR and 1998 agreement with Peru. The broadest expansion of Chilean agreements came in 1996, when it signed FTA with Canada that almost completely mimicked NAFTA. In 1998, Chile upgraded its agreement with Mexico. More recently, Chile has negotiated FTA with the United States and completed negotiations and signed FTA with the EU in May 2002 and the first-ever transpacific FTA with Korea in February 2003.

Other countries also deepened intra-regional liberalization in connection with older agreements, such as the Andean Pact (renamed Andean Community in 1997, which includes Colombia, Venezuela, Bolivia, Ecuador, and Peru), CARICOM, and the Central American Common Market.

¹⁷ See Kuwayama (2003) for further discussion on Chilean FTAs.

The regional momentum in Latin America is being in full force.¹⁸ Negotiations on the most ambitious initiative for economic integration ever in the Hemisphere —the Free Trade Area of the Americas (FTAA) agreement— are advancing as scheduled towards the 2005 deadline. Those negotiations, however, have not stopped countries in the region from simultaneously pursuing bilateral negotiations.¹⁹

In the Asian-Pacific region, a clear trend towards creating FTAs has just begun to be observed very recently. In contrast with Latin America, Asia has still far fewer agreements. Major agreements with comprehensive coverage, which have gone into effect by the close of 2002, are as follows: Australia New Zealand Close Economic Relations Trade Agreement (CER), Asia-Pacific Economic Cooperation (APEC), Association of South East Asian Nations (ASEAN) Free Trade Area (AFTA), Agreement between New Zealand and Singapore on a Close Economic Partnership (ANZSCEP), and Agreement between Japan and the Republic of Singapore for a New Age Economic Partnership (JSEPA).²⁰ CER and ANZSCEP, in principle, eliminated all tariffs upon entry into effect. JSEPA removed all tariffs on the Singapore side upon entry into effect. On the Japanese side, tariffs were basically removed upon entry into force, but tariffs imposed on 10 petrochemical products are supposed to gradually phase out under the elimination schedule specified in the agreement.

¹⁸ In Latin America, several countries in the region are still beneficiaries of important non-reciprocal agreements or “one-way” preferential arrangements though most of the initiatives are reciprocal trade agreements. These are generally preferences granted by the United States and Canada under the Andean Trade Preferences Act, the Caribbean Basin Initiative, and the Generalized System of Preferences (GSP). Several countries are also beneficiaries of the EU GSP regime and a special agreement with the Caribbean. Yet those regimes do not provide preferential treatment to all products in all countries.

¹⁹ This is especially true for the largest player in the Hemisphere: the United States. As of March 2003, the United States had FTAs with Canada, Mexico, and Israel, and had concluded negotiations with Singapore and Chile. The U.S. Congress has been notified of negotiations with Central America, Morocco, the South African Customs Union, and Australia. It is also contemplating FTA with South Korea, Taiwan, New Zealand, Egypt, and at least three members of ASEAN (Indonesia, the Philippines and Thailand) under the “Enterprise for ASEAN Initiative.”

²⁰ The years when agreements were set up are as follows: CER went into effect in 1983; APEC was established in 1989; AFTA commenced in 1993; ANZSCEP went into effect in 2001; and JSEPA went into effect in 2002.

²¹ In Asia-Pacific region, Other regional agreements not listed here include the India-Sri Lanka Free Trade Agreement, the Bangkok Agreement, the South Pacific Regional Trade and Economic Co-operation Agreement (SPARTECA), the Agreement on SAARC (the South Asian Association for Regional Cooperation) Preferential Trading Agreement (SAPTA), and Melanesian Spearhead Group (MSG) Trade Agreement. These are, except India-Sri Lanka FTA, preferential agreements without comprehensive coverage of products for trade liberalization or non-reciprocal preferential trade agreements.

APEC and AFTA are not FTAs as defined by the WTO and thus have a different trade liberalization scheme. APEC does not have a specific schedule for eliminating tariffs. APEC member economies, however, are expected to make voluntarily efforts to liberalize trade regimes under Annual *Individual Action Plans* (IAPs), introduced in 1996. In the case of AFTA, the member countries have reduced preferential tariffs pursuant to the Common Effective Preferential Tariff (CEPT) Scheme. Under this scheme, goods are categorized into five groups: the Inclusion List's Fast Track, the Inclusion List's Normal Track, the Temporary Exclusion List, the Sensitive List, and General Exceptions, and CEPT tariffs are set for the goods in the Inclusion List (Fast Track or Normal Track). The original six members, i.e., Brunei, Indonesia, Malaysia, Philippines, Singapore, and Thailand, are committed to reduce these CETP tariffs to 0-5 percent by 2002, Viet Nam by 2006, Laos and Myanmar by 2008, and Cambodia by 2010. Moreover, the year for removal of tariffs on all goods is targeted as 2010 for the original members and 2015 for the rest of the countries.

As is well known, without a certificate of origin, lower preferential tariffs cannot be granted to products, even if those products are imported from the member countries. In the case of AFTA, for instance, for the original six signatories, at least 85 percent of their products were on the Inclusion List with CEPT tariffs of 0 to 5 percent in 2000. By 2001, this figure had risen to more than 90 percent.²² Nevertheless, CEPT tariffs have been applied to only a small portion of intra-regional trade.²³ One of the reasons is the procedural difficulty in obtaining certificates of origin in terms of time and cost. In addition, the smaller margin of preference makes CEPT tariffs, even though they are lower, less attractive than MFN tariffs that are applied without such high service link costs. Above all, under the duty drawback system, export-oriented foreign affiliates in the region, which account for a large share of intra-regional trade, have no incentive to utilize CEPT tariffs, given high service link costs.

²² See the ASEAN Secretariat website (<http://www.aseansec.org/menu.asp?action=4&content=16>) for information on CEPT tariffs.

²³ See Aoki (2001) for issues of utilization of CEPT scheme.

Asia has just been in the process of creating more FTAs, including agreements with countries in other regions. In 2003, the Free Trade Agreement Between the Republic of Korea and the Republic of Chile, the US-Singapore Free Trade Agreement (USSFTA), and Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA) were signed, and the Free Trade Agreement between the EFTA (European Free Trade Association) States and Singapore and the Singapore-Australia Free Trade Agreement (SAFTA) went in force.²⁴ Furthermore, there are numerous agreements in the process of negotiations or under discussion.²⁵ Agreements under negotiations as of January 2004, for instance, include FTAs between Australia and the United States, between Japan and Mexico, between Japan and Malaysia, between Japan and Korea, between Singapore and Canada, among Singapore, Chile, and New Zealand, between Singapore and India, between Singapore and Korea, between Singapore and Mexico, between Thailand and Australia, and between Thailand and India.²⁶ In the Asian-Pacific region, Singapore is the country that has been most aggressively developing FTAs with countries not only in the region but also in other regions.

III. Explaining Trade Policy Formation: a Factor Analysis Approach

So far, we have examined in a descriptive manner the multiple dimensions of trade policy, comprised as a set of independent instruments. However, political-economy models of trade policy usually assume the existence of an implicit policy that determines the overall protection levels for a specific country or sector. Underlying the observable set of policy instruments, we assume that there is a reduced set of factors that can account for the “revealed” levels of protection, reflected in a combination of MFN tariff policies towards external partners, discriminatory tariffs towards members of a regional agreement, and a variety of NTMs. In this section, our goal is precisely to

²⁴ Singapore provides duty-free access for all tariff lines under these agreements.

²⁵ Agreements under discussion include those between Japan and the Philippines, between Japan and Thailand, between Hong Kong and New Zealand, between New Zealand and Thailand, between Singapore and Sri Lanka, between ASEAN and China, between ASEAN and Japan, between ASEAN-the United States, among ASEAN+3, between MERCOSUR and China, and between MERCOSUR and India.

²⁶ The first round of negotiations just started in December 2003 or January 2004 for FTAs between Japan and Malaysia, between Japan and Korea, and between Singapore and Korea.

uncover the underlying common factors (the “latent” or “unobservable” level of protection) that account for most of the “observed” or “revealed” protection that take form through a given country’s specific measures. An analysis of common factors will allow us to analyze trade policy formation in Latin America and Asia in a more sophisticated manner.

We use a factor analysis approach where the observed variables, that is, the measurable levels of protection through tariffs, NTMs, etc. (X), are assumed to result from linear combinations of some hypothetical, unobservable factors (F). We will interpret these latter factors as the underlying “latent” levels of protection:

$$X = F \{F\} \quad [1]$$

We use factor analysis as an exploratory tool to unravel and understand correlations among a specific set of trade policy measures. In particular, we hypothesize that trade policy can be revealed through analyzing a combination of the following set of variables: average levels of MFN tariff protection (mean MFN tariffs or t), dispersion levels of MFN tariff protection (standard deviation of MFN tariffs or t^*), average coverage of NTMs (mean NTM coverage measure or n), dispersion levels of NTM coverage (standard deviation of NTM measures or n^*), average levels of tariff discrimination towards regional partners (mean preferential tariffs or p) and dispersion levels of tariff discrimination towards regional partners (standard deviation of preferential tariffs or p^*).

Data

In formally analyzing and comparing the trade protection structures of Latin America and Asia, we considered seven countries in each region: Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela in Latin America; and China, Indonesia, Korea, Malaysia, Philippines, Singapore, and Thailand in Asia. Measured or observed levels of protection were computed based on the following indicators: average and standard

deviation of MFN tariffs, preferential tariffs, and NTMs in 2000.²⁷ These variables were computed at the SITC (rev. 2) three-digit level for each country, based on information at the most disaggregated levels of the HS classification. The HS classification is consistent across countries at the six-digit level, but inconsistent at the most detailed level for each economy.²⁸ Therefore, it was necessary to apply the following procedure in order to obtain SITC three-digit-level data for MFN tariffs, preferential tariffs, and NTM coverage: first, data at the most detailed HS classification for each country were aggregated into those at the six-digit level by taking a simple average. Then, data at the HS six-digit level were converted into SITC formatted data at the six-digit level, that is, baseline data. Finally, simple averages and standard deviations of MFN tariffs, preferential tariffs, and NTM coverage at the SITC three-digit level were calculated for each country, using the baseline data. Note that information on tariff lines with specific tariffs is not included in calculating average and standard deviation of MFN tariffs, preferential tariffs for Asian countries.

Information on MFN tariffs and NTM coverage in around 2000 is available from the UNCTAD database, TRAINS. NTM coverage at a detailed level, however, is not directly available from TRAINS. Thus, the following steps were required to obtain such data at the HS six-digit level: first, we categorized the various measures reported by each country, based on the UNCTAD classification of NTMs.²⁹ Second, we assigned 1 to tariff lines subject to NTM(s) and 0 to those not subject to NTM(s) at the most detailed HS level for each country. For instance, in the case of overall NTM coverage, we assigned 1 to a tariff line subject to any one or more measures. Similarly, we assigned 1 to a particular tariff line if it was subject to any core NTM (non-core NTMs) in obtaining core NTM coverage (non-core NTM coverage). Finally, the simple average was calculated at the six-digit level as NTM coverage. The rest of the procedures for obtaining the SITC three-digit level data were the same as with the other variables. A

²⁷ The data are from approximately 2000. However, country variations exist on NTMs due to limited data availability.

²⁸ The most detailed classification for each country is usually at the eight, nine or ten-digit level.

²⁹ Because there is no consensus on NTMs to report, the types of measures reported are inconsistent from one country to another. While some countries provide detailed information on NTMs, others do not. In the case of countries with only a few reported NTMs, the low level of reported coverage cannot necessarily be interpreted as a low level of protection provided by NTMs.

more detailed explanation regarding the formulation of NTM variables can be found in the appendix.

Information on preferential tariffs in Latin American comes from Estevadeordal and Robertson (2004) and the FTAA Hemispheric Database. Compiling preferential tariffs for Latin America at the necessary level was complicated. One of the reasons is that information on preferential tariffs in the region is provided in terms of either an ad valorem tariff rate or a percentage discount rate on the MFN tariff (or the “margin of preference”), which must be converted into an ad-valorem tariff rate.³⁰ Another reason is that, as Figure 6 clearly shows, Latin America has various overlapping agreements across countries. Thus, we started with the lowest tariff for each tariff line from among the various agreements’ preferential tariffs for each partner country, as a preferential tariff applied to the partner. Then, preferential tariffs for each partner at the most detailed levels were aggregated into those at the six-digit level. Finally, preferential tariffs for each partner of a country were simply averaged to obtain that country’s preferential tariff at the six-digit level.³¹

On the other hand, information on Asia comes from the ASEAN secretariat for AFTA and original copies of agreements for ANZSCEP.^{32,33} In the case of Asia, preferential tariffs are expressed as ad valorem tariffs, unlike to Latin America, though they include tariffs other than ad valorem tariff rates such as specific tariffs. In compiling preferential tariffs, MFN tariffs are substituted for preferential tariffs for products not included on the tariff removal list, and tariff lines with specific tariffs are excluded. Note that preferential tariffs for China and Korea are not included, since they had no FTA around 2000. Singapore, in contrast, has more than one FTA, but the preferential tariffs in each of those agreements are all zero.

³⁰ A margin of preference is converted into an ad-valorem tariff rate by subtracting it from one and multiplying the remainder by the respective MFN tariff.

³¹ See Table A3 in the Appendix for preferential tariffs for each partner of a country.

³² Information on AFTA is available at <http://www.aseansec.org/800x600.html> (<http://www.aseansec.org/menu.asp?action=4&content=16>).

³³ Original copy of ANZSCEP is available at <http://www.mft.govt.nz/foreign/regions/sea/singcepccontent.html>.

Analysis

Our study undertook two tasks using a factor analysis approach: one was to identify country-specific (region-specific) common factors that could account for the observed levels of protection provided by each country's (each region's) trade policies, using each country's (each region's) data. The other was to uncover sector-specific common factors underlying trade policies for a given sector at the SITC one-digit level, using pooled data from the two regions.³⁴ We have called the first of these processes "country analysis" (regional analysis) and the second "sector analysis." Figures 7 and 8 report what are called "factor loadings" from the six "observed" trade-policy variables among the common factors extracted from the regional and country analysis, respectively. Figure 9 does the same with common factors extracted from the sector analysis. These factor loadings suggest the correlation between each variable and the component structures. We hoped to see clusters of variables only at the ends of the lines through zero and at the intersection of these lines. Variables near the ends of the zero lines such as points $(+1, 0)$, $(-1, 0)$, $(0, +1)$, and $(0, -1)$ had high loadings on only one factor. Variables near the intersection point $(0, 0)$ (or $(0, 0, 0)$ in a three dimensional space) were associated with neither factor.

Before delving into country specific strategies, it is illustrative to compare the two regions as a whole. In Figure 7, we have pooled information for all Latin American countries and for all Asian countries. A factor analysis indicates that the correlation structure of the six trade policy measures considered in this study (t , t^* , p , p^* , t , t^*) can be roughly reduced or decomposed into two components or common factors. The results of the factor analysis are nonetheless stronger in the case of Asia (see clustering in Figure 7). The first component represents the underlying factors behind the use of NTMs in each region as measured by average NTM coverage (n) and the standard deviation within the NTM coverage measure (n^*). The second component accounts for the correlation among the rest of the trade policy variables (MFN [t , t^*] and preferential tariffs [p , p^*]), although the variance of MFN tariffs (t^*) in the case of Latin America

³⁴ China and Korea are not included for sector analysis.

showed no correlation to any other variable, appearing as an outlier on the plot for the region in Figure 7.

How should these results be interpreted? Our analysis suggests that NTM and tariff policies are set independently and have different underlying domestic policy motivations. The main difference involves the way that NTM measures are used in the two regions. In Latin America, average NTM coverage (n) and standard deviation of NTM coverage (n^*) are negatively correlated within the same factor (opposite extremes), indicating that sectors with high NTM coverage levels (agriculture, for instance) display less sectoral dispersion (i.e., products in a sector highly protected by NTMs are treated more or less equally). The reverse is true in the case of Asia, where both these NTM measures cluster together within the same common factor, indicating a positive correlation. In Asia, sectors that exhibit higher NTM protection overall tend to have higher dispersion, indicating that NTM protection is more product-specific and highly selective.

For tariff policy, the clustering is very strong in the case of Asia. Sectors with high MFN treatment also enjoy less of a tariff preference (high bilateral tariffs). At the same time, sectoral dispersion for those highly protected sectors (whether on an MFN or preferential basis) tends to be higher, that is, there is more product-specific tariff protection in a given sector. The clustering pattern is similar in Latin America, but not as strong, partly due to the more extensive use of preferential agreements for tariff-discrimination purposes.

Next, we applied the factor analysis approach on a country-by-country basis (Figure 8). The individual country plots show the deviation of each country from the regional pattern discussed above. Countries such as Argentina, Brazil, and, to a lesser extent, Colombia exhibit a similar pattern: n , n^* and t^* are tied to a single component (with a positive correlation among the dispersion measures), while the rest of variables are tied to a second component. In those cases we cannot separate the sectoral dispersion of MFN tariffs and NTM policies as a whole. Chile's case is worth mentioning for several

reasons. First, although factor analysis preserves a breakdown into two factors, there is no real clustering of variables. Chile's long-standing tradition of implementing uniform tariff policy is clearly captured by the fact that t and t^* are associated under the same component but negatively correlated (there is no tariff dispersion across products in any sector whose tariff rate is essentially flat). However, this uniformity in tariff policy does not extend to overall trade policy; otherwise we would observe a single component. In fact, given how the variables cluster in the figure, sectors with high levels of NTM coverage (n) also tend to have relatively higher levels of dispersion, as well as higher levels of bilateral tariffs (average and dispersion), reflecting the highly preferential discriminatory policy pursued by Chile with its hub strategy of trade agreements. The picture for Mexico reveals a clustering of most variables around a single common factor, separate from other factors explaining the NTM dispersion.

Most countries in our Asian sample follow the regional pattern, with the exception of China and Thailand. In the case of Thailand, factor analysis could not reduce the underlying trade policy factors into two components, as it could in the rest of countries. The plot suggests the presence of three common factors and therefore indicates a more complex setting for Trade policy formation in this particular case. In the case of China, although clustering is still present around NTM variables and tariff policy variables, it is much weaker than in the rest of the sample.

As mentioned above, factor analysis can be used to explore underlying rationales if there are common factors behind sector-specific policies. That is to say, we are interested in uncovering the correlation structure of trade policy measures in particular sectors using pooled data, both for Latin America and Asia. This approach has allowed us to gain insights on how trade policy is designed at the sectoral level, and to identify particular countries that deviate from the usual pattern. We have presented sector results in Figure 9, based on sectors defined at the 1-digit level of disaggregation. SITC 0 (foods and live animals), SITC 1 (beverages and tobacco) and SITC 4 (animal and vegetable oils) show a similar pattern, based on two common-factor breakdowns, one accounting for NTM policy, and the other explaining tariff policy. There is a negative

correlation among NTM observed measures (n , n^*) and a positive correlation among most tariff variables (t , t^* , p , p^*). At a risk of oversimplifying, the analysis suggests that NTMs and tariffs implement a separate set of determinants. Higher NTM protection is associated with lower levels of dispersion. In contrast, all tariff variables are positively correlated among one another.

SITC 2 (Crude Materials) and SITC 5 (Chemicals) sectors need three underlying forces to explain how trade policy is designed for those sectors, based on our six measurable variables. This gives an indication of the complexity behind trade policy in those sectors. Finally, the manufacturing sectors group: SITC 6 (manufactured goods) SITC 7 (machinery and transportation equipment), and SITC 8 (other manufactured articles) exhibit a relatively similar pattern although there is a weak level of correlation among variables tied to a common factor. Interestingly, the tariff dispersion variable (t^*), on its own, singly determines one of the two factors (in particular for sectors SITC 6 and 8). This reflects the importance of tariff escalation policies used to protect manufacturing.

The results described above cannot be applied in a general way to all sectors and countries (Table 2). In fact, a useful feature of factor analysis is its ability to identify outliers. In our framework, we can identify outlier sectors for a given country or outlier countries for a given sector. Roughly speaking, outliers concentrate mostly among manufacturing sectors in Latin America while in Asia most outliers can be found in the agriculture and food processing sectors. In the agriculture and food processing sectors, most Asian countries display many high ratios at the country-analysis level, and fewer outliers at the sector-analysis level. A comparison of results between country analysis for Asian countries and the respective sector analysis reveals major differences in how NTMs are implemented, though there is no difference in the policy formulation for the two types of tariffs (high average rates and a large standard deviation). This indicates that Asian countries have an NTM policy where most products in the agriculture and food processing sectors are more or less equally protected using the same devices.³⁵ A

³⁵ Malaysia designs trade policies for SITC 1 (beverages and tobacco) in a manner that is neither revealed by its country pattern or its sectoral pattern.

sectoral pattern rather than a country pattern is also seen in certain agricultural and food processing sectors in countries outside of Asia, such as Mexico, Peru, and Venezuela.³⁶

For manufacturing sectors, in particular SITC 7 (machinery and transportation equipment), most of the Latin American countries have outliers under both country and sector analysis, although the ratios are not as high. This means that these countries might have a trade policy formation strategy that corresponds to neither pattern for this sector.

As stated above, factor analysis can be used to identify outliers and unusual cases. We can standardize factor scores so that they have a mean of zero and a standard deviation of one. Thus, we define a range of $[-2, +2]$ as a defined interval for each common factor and regard cases with factor score(s) out of this range for at least one common factor as outliers. In the case of country analysis, we can identify sectors that do not conform to the overall trade policy strategy observed in a given country. Similarly, in the case of sector analysis, we could identify countries that seem to design very different trade policy strategies as compared to the world pattern. In Table 2 we compute the percentage of SITC three-digit product categories as compared to the total number of categories in the corresponding SITC one-digit sector that appear to be outliers according to the country analysis (numerator) or the sector analysis (denominator). Ratios greater than 25 percent are highlighted. For instance, we could take the case of Brazil. When applying factor analysis to Brazil, the outliers include 30 percent of the cases in SITC Sector 3. This means that 30 percent of the cases in this sector deviate from the component structure identified for this country, and a high selective trade policy applies. In a sense, we are using an “objective” approach to identify a concept that is difficult to operationalize in the context of trade policy discussion, that is, the so-called “sensitive” products. On the other hand, when we apply a factor analysis on SITC Sector 3 pooling data from all countries (Latin America and Asia), at least 43 percent of the data points from the Brazilian sample are also outliers, meaning that Brazil’s

³⁶ Mexico implements trade policies for SITC 4 (animal and vegetable oils) in a manner that is neither revealed by its country pattern or its sectoral pattern.

underlying policies significantly differ from the worldwide trend in this particular sector.

IV. Conclusions

This paper has two objectives. First, we have presented a comprehensive quantitative comparison of the trade policy structures in Latin America and Asia, highlighting certain key differences in approaches to designing trade policies. Second, using a factor analysis approach, we attempted to provide an understanding of the underlying forces shaping trade policy in both regions. This approach has allowed us to make a comparison across regions, countries, and sectors, based on the correlation patterns of a set of “observed” trade policy variables. We have also suggested an approach aimed at identifying the so-called sensitive sectors, which is a key concept in trade negotiations, but somewhat difficult to operationalize.

References

- Ando, Mitsuyo. (2002) "The pervasiveness of non tariff measures in APEC countries." *COE Discussion Paper*, No.0201., Tokyo: Keio University.
- Ando, Mitsuyo (2005) "Fragmentation and Vertical Intra-industry Trade in East Asia" *COE Discussion Paper*, Tokyo: Keio University. To be presented at Claremont Regional Integration Workshop with Particular Reference to Asia, Claremont McKenna College, U.S.A on February 25, 2005.
- Ando, Mitsuyo and Kimura, Fukunari. (2004) "The Formation of International Production and Distribution Networks in East Asia." Forthcoming in Takatoshi Ito and Andrew Rose, eds., *International Trade (NBER-East Asia Seminar on Economics, Volume 14)*, Chicago: The University of Chicago Press. The former version was appeared in *NBER Working Paper 10167*.
- Aoki, Ken. (2001) *AFTA - the Situation and Prospect of ASEAN Economic Integration - (AFTA - ASEAN Keiozai Tougo no Jitsujō to Tenbo -)*, Tokyo: JETRO. In Japanese.
- Casanova, Lourdes. (2003) "Multinational Strategies in Latin America: Comparing East Asian, European and North American Multinationals." Presented at the LAEBA Conference, "FTAA and Transpacific Business Linkages: Implications for Japan and East Asia" held in Tokyo, Japan on December 10, 2003.
- Estevadeordal, A. and R. Robertson (2004) "Do Preferential Trade Agreements Matter for Trade" in A. Estevadeordal, D. Rodrik, A. M. Taylor and A. Velasco (Eds.) *Integration in the Americas: FTAA and Beyond*. Harvard University Press, Cambridge, MA.
- Ethier, W. (1998) "The New Regionalism". *The Economic Journal* 108 (449) July.
- Devlin, Robert and Estevadeordal, Antoni (2002) "Market Access" in *Beyond Borders: The New Regionalism in Latin America*. IDB Economic and Social Progress in Latin America Report Washington D.C.: Inter-American Development Bank.
- Kimura, Fukunari. (2003) "Development Strategies for Economies under Globalisation: Southeast Asia as a New Development Model." in Tran Van Hoa and Charles Harvie, eds., *New Asian Regionalism: Responses to Globalisation and Crises*. London: Palgrave.

- Kimura, Fukunari and Ando, Mitsuyo. (2003) "Fragmentation and Agglomeration Matter: Japanese Multinationals in Latin America and East Asia." *North American Journal of Economics and Finance*, Vol. 14, Issue 3: 287-317.
- Kimura, Fukunari and Ando, Mitsuyo.(2004a) "The Economic Analysis of International Production/Distribution Networks in East Asia and Latin America: The Implication of Regional Trade Arrangements." Forthcoming in *Business and Politics*, Vol.7: No.1, Article 1.
- Kimura, Fukunari and Ando, Mitsuyo.(2004b) "Two-dimensional Fragmentation in East Asia: Conceptual Framework and Empirics." Forthcoming in the special issue, 'Outsourcing and Fragmentation: Blessing or Threat?', of *International Review of Economics and Finance*.
- Kuwahara, Mikio. (2003) "The Comprehensiveness of Chilean Free Trade Agreements" in Jiro Okamoto ed. *Whither Free Trade Agreements? Proliferation, Evaluation and Multilateralization*. Tokyo: Institute of Developing Economies.
- Pangestu, M. (2003) "Industrial Policy and Developing Countries" in Bernard Hoekman, Philip English and, Aaditya Matto eds., *Development, Trade, and the WTO: A Handbook*. Washington D.C.: World Bank.
- United Nations Conference on Trade and Development (UNCTAD) (2001), *Trade Analysis and Information System (TRAINS) (CD-ROM) 2001 spring version*. Geneva: UNCTAD.
- World Bank (2002). *World Development Indicators 2002 (CD-ROM)*. Washington D.C.: World Bank.

Appendix: data description for NTMs

The NTM classification proposed by UNCTAD is provided in Table A.1.³⁷ The TRAINS database provides information on the tariff lines subject to NTMs each country implements at the most disaggregated level. Since variable measures reported by each country are inconsistent across countries, our paper first categorizes them into the following types, based on the UNCTAD classification: 1. Price control measures, 1-(1) Administrative pricing, 1-(3) Variable charges, 1-(4) Anti-dumping (AD) measures, 1-(5) Countervailing (CV) measures, 3. Automatic licensing measures, 4. Quantity control measures, 4-(1) Non-automatic licensing measures, 4-(2) Import quota, 4-(3) Import prohibition, 4-(4) Export restraint agreements, 5. Monopolistic measures, 5-(1) Single channel for imports, 6. Technical measures, 6-(1) Technical regulations, and 6-(3) Special customs formalities.³⁸ Table A.2 shows the case of Malaysia with classified types of measures. Then, according to the categorization, we assign 1 to tariff lines subject to NTM(s) and 0 to those not subject to NTM(s) at the most detailed HS level for each country. Note that when there are several measures categorized into one type of measures, for instance, in the case of 6-(1) technical regulations, the number of tariff lines subject to this type is counted so as not to double count the same tariff line. The rest of procedures to conduct a variable for NTM incidence are as explained in section IV.

³⁷ See Ando (2002, Table 1) for the list of NTMs and the range of NTMs identified in the major three NTM classifications, multilateral agreement, and regional agreements in the Asia-Pacific.

³⁸ Financial measures are not included because no country in the analysis reports their use.

Table 1 Trends of Tariffs Since the Late 1980s for Latin America and Asia

	(%)				
	1988	1994	1997	1999	2003
Argentina	30.8	15.4	14.1	15.5	11.9
Brazil	41.5	12.4	14.9	15.8	12.0
Chile	15.1	10.9	10.8	10.0	-
Colombia	46.3	11.3	11.4	12.2	-
Mexico	10.2	12.4	13.7	17.9	14.8
Peru	70.5	15.6	13.1	13.6	-
Venezuela	42.2	11.3	11.5	12.8	-
	1988	1993	1996	2000	2003
China	39.5	37.5	23.0	16.4	11.0
Indonesia	18.1	17.0	13.9	7.3	7.2
Korea	19.2	11.6	14.4	13.7	13.3
Malaysia	13.6	12.8	9.0	9.2	9.3
Philippines	27.9	23.5	14.0	6.9	5.3
Singapore	0.3	0.4	0.0	0.0	0.0
Thailand	31.2	37.8	17.0	15.4	13.8

Data sources: Devlin and Estevadeordal (2002) for tariffs in Latin America; for Asia, Manila Action Plan for APEC vol.1 for tariffs in 1988 and 1993 and APEC Individual Action Plan (e-IAP) for tariffs thereafter.

Note: Tariffs above are the simple average of applied tariffs.

Table 2 WTO Bound Tariffs and Applied Tariffs by Sector in Latin America, 1999-2000

	All products	Agriculture	Manufacturing
Argentina			
WTO bound rate (%)	35.0	23.0	31.0
MFN applied rate (%)	15.5	13.5	15.8
MFN applied rate (stand.dev.)	6.1	4.9	6.3
Brazil			
WTO bound rate (%)	32.0	36.0	32.0
MFN applied rate (%)	15.7	13.1	16.1
MFN applied rate (stand.dev.)	6.2	5.2	6.2
Chile			
WTO bound rate (%)	25.0	32.0	25.0
MFN applied rate (%)	9.9	10.0	9.9
MFN applied rate (stand.dev.)	0.4	0.0	0.5
Colombia			
WTO bound rate (%)	52.0	85.0	40.0
MFN applied rate (%)	12.2	16.1	11.5
MFN applied rate (stand.dev.)	6.1	4.6	6.1
Mexico			
WTO bound rate (%)	49.0	47.0	49.0
MFN applied rate (%)	17.8	24.8	16.7
MFN applied rate (stand.dev.)	14.8	33.7	8.0
Peru			
WTO bound rate (%)	32.0	38.0	30.0
MFN applied rate (%)	13.6	16.6	13.1
MFN applied rate (stand.dev.)	3.6	6.0	2.7
Venezuela			
WTO bound rate (%)	39.0	50.0	35.0
MFN applied rate (%)	12.8	16.9	12.1
MFN applied rate (stand.dev.)	6.4	5.2	6.3

Data source: authors' calculation.

Note: WTO bound rates and applied rates are the simple average.

Table 3 WTO Bound Tariffs and Applied Tariffs by Sector in Asia

	1996	2000	2003													
	All products	All products	All products	Agriculture	Fish and Fish products	Petroleum oils	Wood, pulp, paper, and furniture	Textile and clothing	Leather, rubber, and footwear etc.	Metals	Chemicals and photographic supplies	Transport equipment	Non-electric machinery	Electric machinery	Mineral products and precious stones etc.	Manufactured articles, n.e.s
China																
WTO bound rate (%)	n.a.	n.a.	11.0	-	-	-	-	-	-	-	-	-	-	-	-	-
MFN applied rate (%)	23.0	16.4	11.0	16.8	12.2	6.1	7.0	15.2	13.6	7.4	7.4	15.9	8.6	9.9	9.4	12.3
Bound tariff lines (%)	n.a.	n.a.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Specific tariff lines			52 (7445)	7 (1061)	0 (171)	1 (19)	0 (348)	0 (1069)	0 (217)	0 (737)	36 (1235)	0 (296)	0 (876)	8 (482)	0 (356)	0 (578)
Indonesia																
WTO bound rate (%)		37.2	37.2	37.2	47.7	40.0	39.6	29.2	39.7	38.4	38.2	39.0	34.0	28.1	39.1	36.0
MFN applied rate (%)	13.9	7.3	7.2	8.6	5.0	5.0	4.1	10.5	6.6	8.1	5.5	17.0	2.3	6.1	4.6	7.7
Bound tariff lines (%)	93.9	93.9	93.9	100.0	100.0	100.0	98.7	100.0	99.6	93.8	96.3	31.4	92.3	90.1	94.8	85.1
Specific tariff lines			12 (7542)	12 (1045)	0 (154)	0 (20)	0 (551)	0 (1203)	0 (271)	0 (883)	0 (1240)	0 (225)	0 (645)	0 (402)	0 (346)	0 (557)
Korea																
WTO bound rate (%)	27.6	19.5	17.7	6.1	15.3	11.5	4.8	19.7	12.5	8.2	8.3	8.4	6.6	7.6	9.3	9.5
MFN applied rate (%)	14.4	13.7	13.3	52.2	16.8	5.8	3.7	9.8	8.9	5.2	7.0	6.0	6.1	5.5	6.0	6.4
Bound tariff lines (%)	90.4	91.8	91.4	97.6	34.0	54.6	87.5	99.3	85.7	99.4	95.5	79.6	93.6	70.3	91.4	95.0
Specific tariff lines			31 (11261)	0 (1537)	0 (341)	0 (77)	0 (519)	0 (1363)	0 (371)	0 (938)	30 (2313)	0 (319)	0 (1179)	0 (644)	0 (666)	1 (994)
Malaysia																
WTO bound rate (%)		17.2	17.2	-	-	-	-	-	-	-	-	-	-	-	-	-
MFN applied rate (%)	9.0	9.2	9.3	-	-	-	-	-	-	-	-	-	-	-	-	-
Bound tariff lines (%)		61.8	61.8	-	-	-	-	-	-	-	-	-	-	-	-	-
Specific tariff lines			83 (10458)	70 (1316)	0 (144)	0 (30)	2 (2305)	0 (1089)	5 (399)	4 (1044)	1 (1508)	0 (481)	1 (714)	0 (494)	0 (350)	0 (584)
Philippines																
WTO bound rate (%)	31.6	27.6	25.5	33.9	33.5	-	24.4	29.2	32.8	26.1	20.3	20.0	17.9	19.4	22.3	22.6
MFN applied rate (%)	14.0	6.9	5.3	7.0	7.1	2.6	6.0	9.5	5.6	4.5	3.6	8.1	2.1	3.9	4.3	4.0
Bound tariff lines (%)		63.3	64.6	12.3	0.1	0.0	2.0	14.6	1.1	3.6	11.7	1.0	7.8	4.2	2.4	4.1
Specific tariff lines			(5556)	(685)	(109)	(10)	(297)	(820)	(173)	(648)	(910)	(161)	(572)	(389)	(313)	(469)
Singapore																
WTO bound rate (%)	10.0	6.5	5.3	6.2	6.5	6.5	2.3	6.5	6.5	4.3	5.0	6.2	4.5	4.0	6.5	4.9
MFN applied rate (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bound tariff lines (%)	70.0	85.0	91.1	99.8	100.0	100.0	96.2	82.6	100.0	86.9	97.6	99.4	88.9	89.3	99.0	72.7
Specific tariff lines			4 (6036)	4 (871)	0 (121)	0 (23)	0 (293)	0 (930)	0 (198)	0 (663)	0 (987)	0 (158)	0 (602)	0 (408)	0 (293)	0 (473)
Thailand																
WTO bound rate (%)		39.7	28.2	31.9	8.4	23.0	24.6	33.2	29.1	22.5	26.4	50.8	28.0	19.8	27.4	29.6
MFN applied rate (%)	17.0	15.4	13.8	27.4	5.4	3.3	14.7	21.4	19.5	12.2	5.6	26.0	1.0	11.5	7.4	14.4
Bound tariff lines (%)		73.1	68.4	94.0	100.0	7.6	82.2	92.3	49.5	48.8	54.7	16.7	83.0	57.4	51.0	75.0
Specific tariff lines			93 (6204)	59 (780)	0 (97)	15 (53)	5 (314)	0 (896)	0 (303)	0 (637)	9 (923)	0 (215)	1 (629)	0 (453)	0 (522)	4 (208)

Data sources: APEC Individual Action Plan (2000, 2001, and 2002) for each country (available at <http://www.apec-iap.org>).

Notes: WTO bound rates and applied rates are the simple average.

Data for 2000 are of 2000 or 2001.

Bound tariff lines (%) present the shares in total tariff lines in corresponding sectors.

Figures in parenthesis for specific tariff lines are the total number of tariff lines in corresponding sectors.

WTO bound rates for Indonesia in 2003 are of 2001.

WTO bound rates for Malaysia are the simple average of tariffs on industrial products.

Data for applied tariffs and the total number of tariff lines in the Philippines do not include "sensitive" agriculture products under E.O. 313 and E.O. 328.

In calculating applied tariffs in Thailand, the ad valorem equivalents of specific tariffs are assumed to be 30 percent for rice and 20% and 25% for sugar.

Table 4 Trade Agreements Entered into Force by 2003 in Latin America

Agreements	Date of signature	Entry into force
<i>Major agreements entered into force by 2003</i>		
Central American Common Market (CACM) ¹	1960	1961
Andean Community ⁴	1969	1969
Caribbean Community (CARICOM) ²	1973	1973
LAIA - Latin America Integration Association (ALADI)		1981
Chile-Mexico ²	1991	1992
Chile- Venezuela	1993	1993
North American Free Trade Agreement (NAFTA)	1992	1994
Colombia-Chile	1993	1994
Southern Cone Common Market (MERCOSUR)	1991	1995
Costa Rica-Mexico	1994	1995
Group of Three (G-3)	1994	1995
Bolivia-Mexico	1994	1995
Chile-Ecuador	1994	1995
Chile-MERCOSUR	1996	1996
Canada-Chile	1996	1997
Bolivia-MERCOSUR	1996	1997
Mexico-Nicaragua	1997	1998
Chile-Peru	1998	1998
CACM-Dominican Republic ⁵	1998	1999
CARICOM-Dominican Republic ⁵	1998	1999
Mexico – European Union ⁵	1999	2000
Mexico-EFTA		2001
Mexico – Northern Triangle of Central America ⁶	2000	2001
Chile-Costa Rica		2002
CACM-Chile		2002
Panama-El Salvador		2002
Costa Rica-Canada		2002
Chile-European Union	2002	2003
Chile-South Korea	2003	2003
Chile-USA		2003
Mexico-Uruguay		2003
MERCOSUR - Andean Community		2003

Data source: Integration, Trade and Hemispheric Issues Division, IDB.

Notes:

1. The Presidents agreed to re-activate CACM in 1990 (Montelimar Summit) and opted to definitively pursue a customs union in 1993 (Protocol of Guatemala).
2. CARICOM is now updating its founding treaty in order to establish the legal basis for moving towards a single market.
3. The parties have substantially revised and upgraded this accord; a new agreement is in force since August 1, 1999.
4. The 1988 Protocol of Quito calls for amendments to the group's founding treaty. In 1996, the Group's name was changed to the Andean Community and its institutional structure was revised (Declaration of Trujillo).
5. Awaiting (sufficient) legislative approval
6. Northern Triangle includes El Salvador, Guatemala, and Honduras.

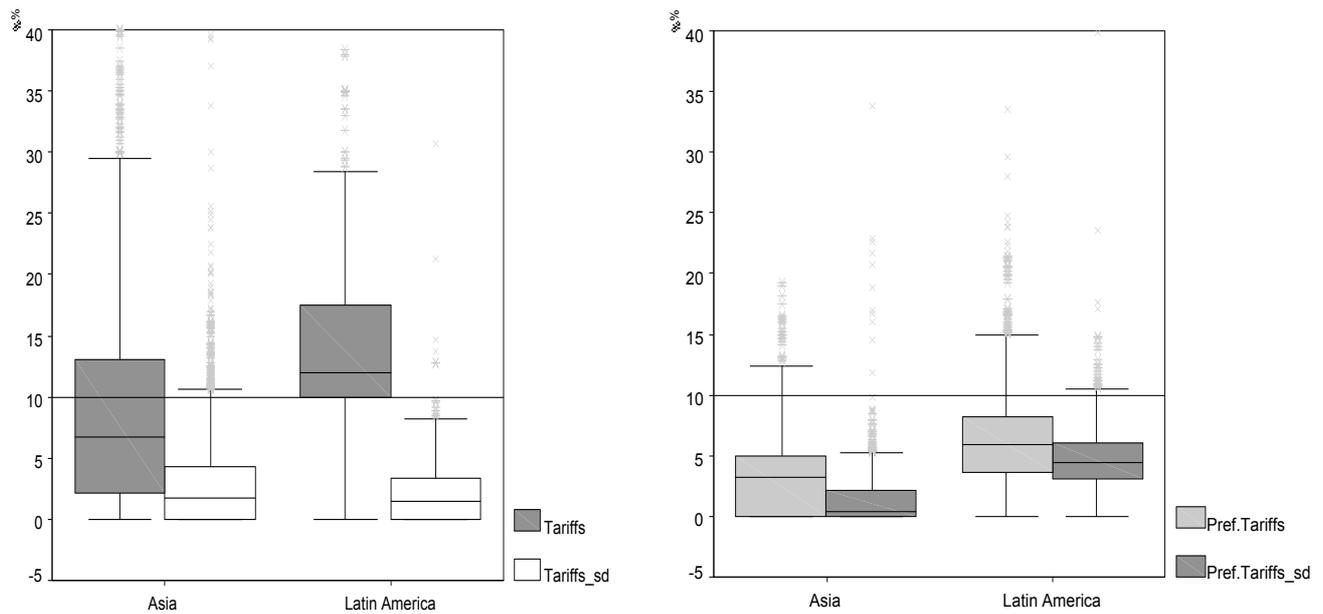
Table 5 Outliers of the Results of Country Analysis and Sector Analysis

Sector	Latin America							Asia						
	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	China	Indonesia	Korea	Malaysia	Philippines	Singapore	Thailand
(a) Country Analysis														
SITC 0		12			18	53	3	18	21	35	24	24	-	41
SITC 1					50	25	25	25	25	25	75		-	75
SITC 2								6	15	6	6	6	-	6
SITC 3	57	29						14		14		29	-	
SITC 4					50	50		50	50	25			-	25
SITC 5				4		4			16	8		16	-	
SITC 6	2					4	2		2	4			-	6
SITC 7	4	11	11	7		2	7	7			4	9	-	11
SITC 8	25	4	11	4		11	11				7		-	4
(b) Sector Analysis														
SITC 0					26			-	6	-	9	9	3	9
SITC 1								-		-	75			
SITC 2	9	15		12	15	3		-	9	-	15	3	6	33
SITC 3		43			14			-		-				
SITC 4					50			-		-				
SITC 5					4			-	4	-	8			
SITC 6	6	2			12	2		-	2	-	27			12
SITC 7	2	11	9	2	4	4		-	4	-	9		18	13
SITC 8	7				36			-		-	14			21

Data source: authors' estimation.

Notes: the figures represent shares of the number of the SITC three-digit product categories regarded as outliers, suggested by country analysis and sector analysis, in the total number of product categories in the corresponding SITC one-digit sector. Our study defines a range [-2, +2] as an ad hoc range for each common factor, and regards a case with factor score(s) out of the range for at least one common factor as an outlier. The ratios over 25 per cent are highlighted.

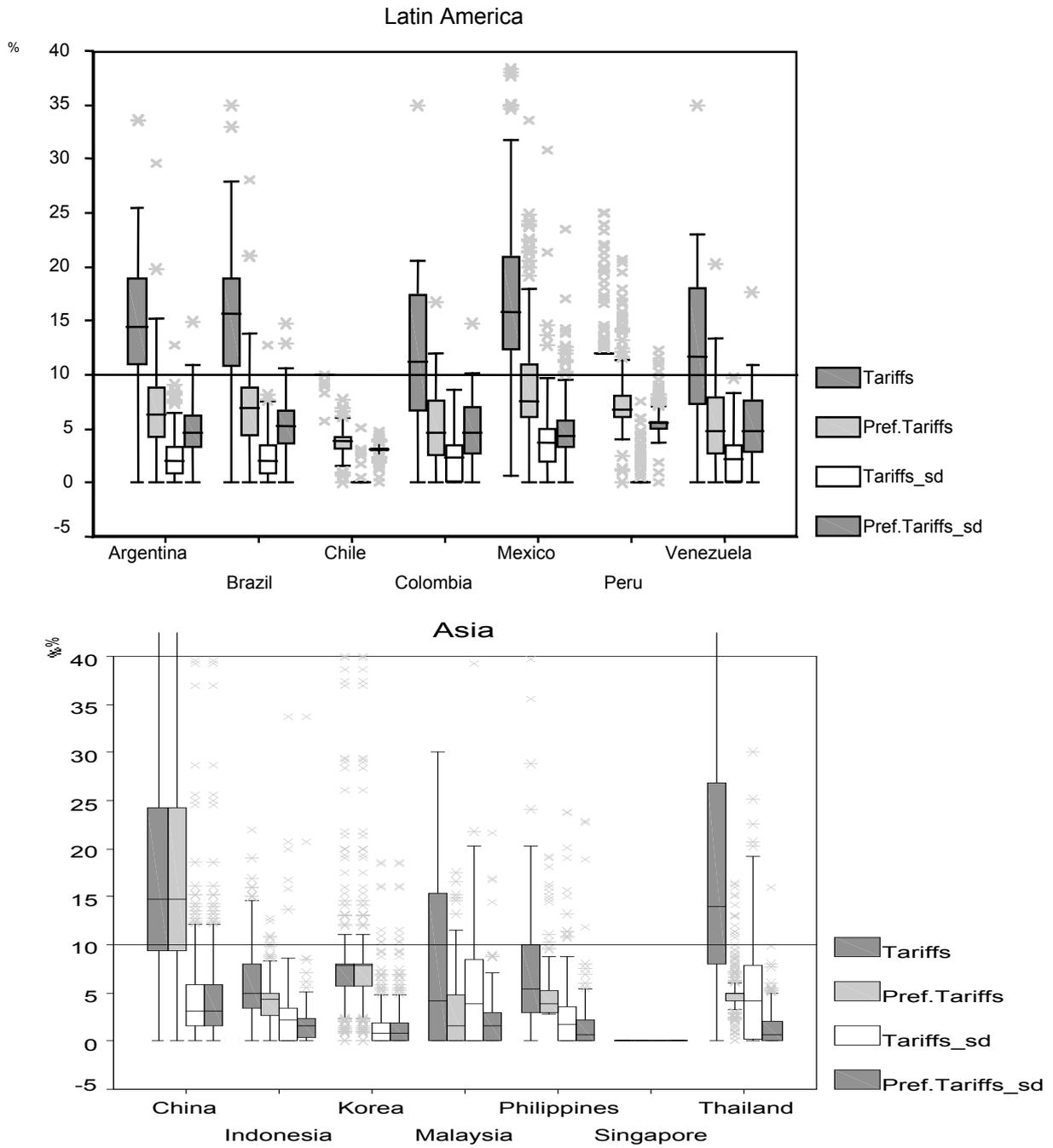
Figure 1 MFN Tariffs and Preferential Tariffs in Latin America and Asia (2000)



Data Source: authors' calculation.

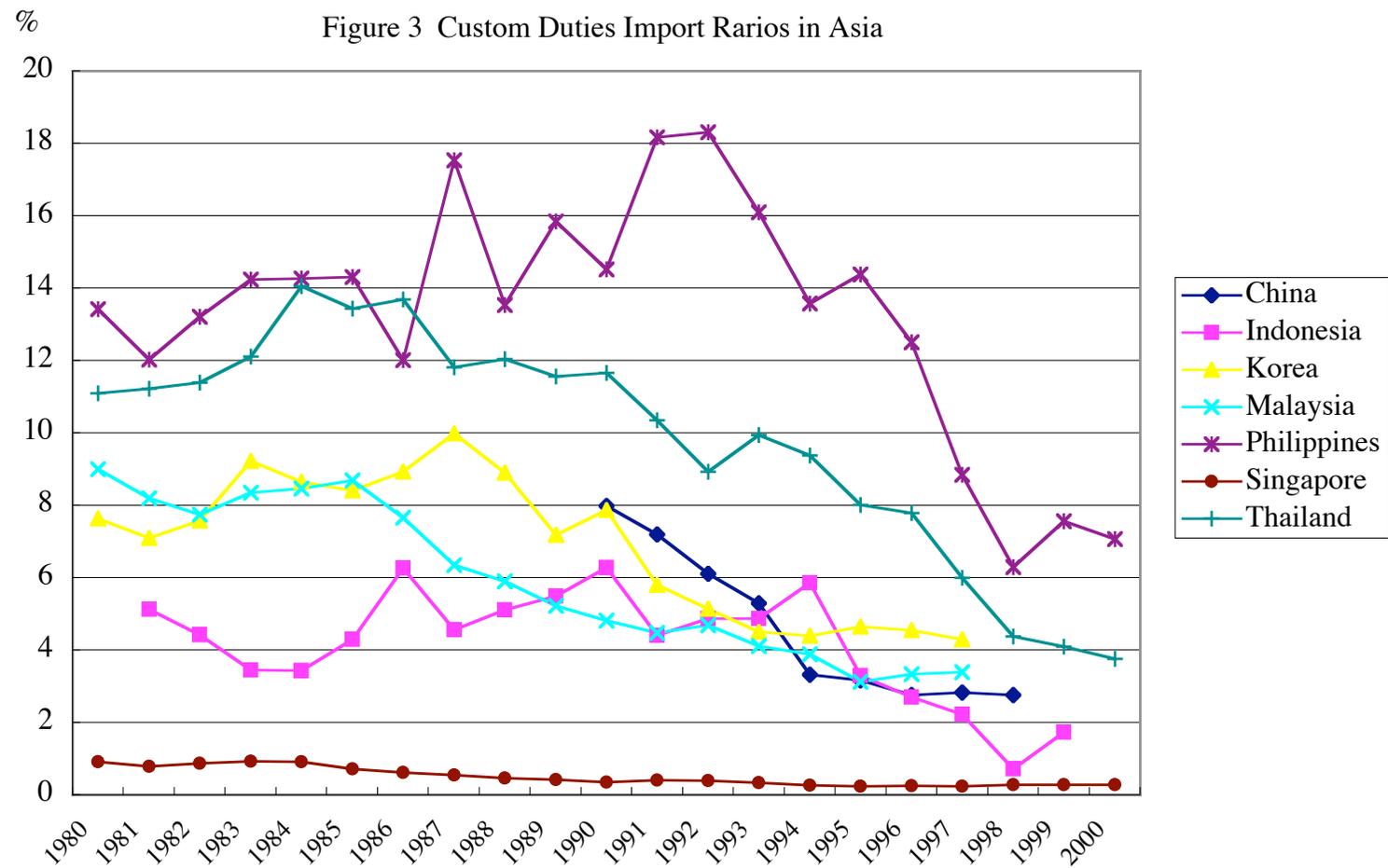
Notes: data includes preferential tariffs in most Latin American Agreements currently in force for Latin America and those in AFTA and ANZSCEP agreements for Asia. In the figure, average level (medium) is expressed by the horizontal line within each box. Boxes surround the interquartile range from the 25th to 75th percentile, and whiskers extend up and down to “adjacent values”, defined as 1.5 times the length of the interquartile range. Each plot outside the box and line presents an outlier.

Figure 2 MFN Tariffs and Preferential Tariffs in Latin America and Asia by Country



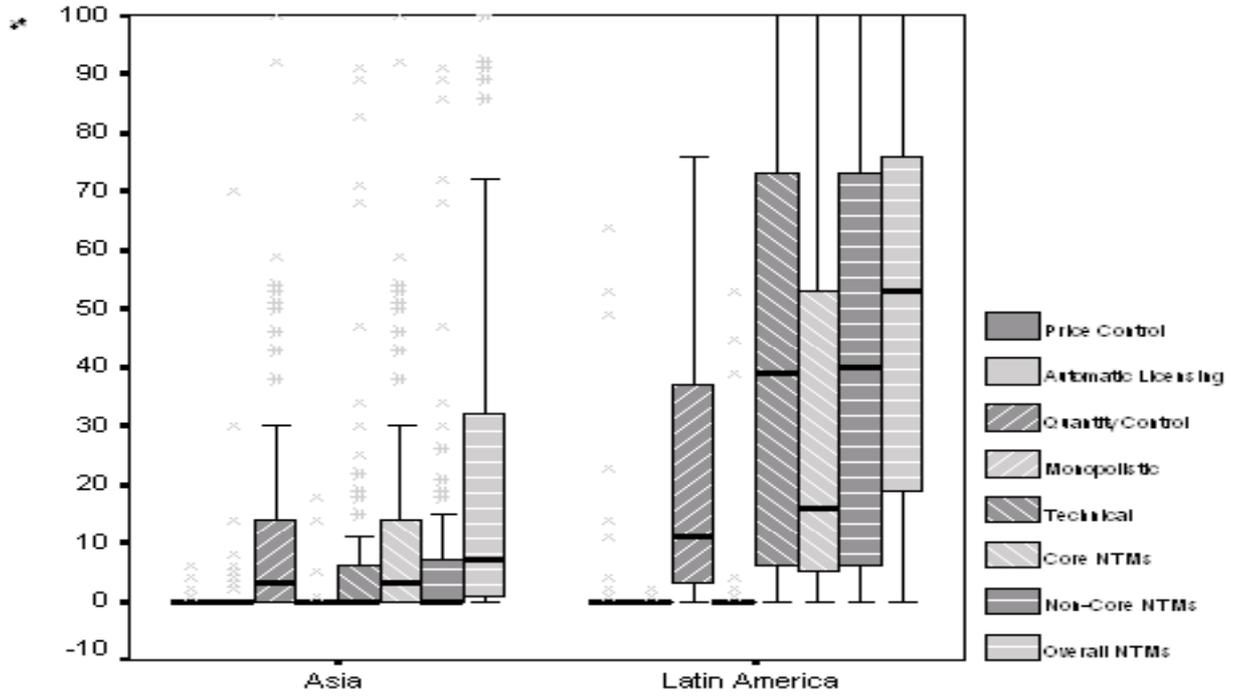
Data source: authors' calculation.

Notes: see notes for Figure 1. Preferential tariffs for China and Korea in this figure are expressed as MFN tariffs.



Data source: World Bank (2002).

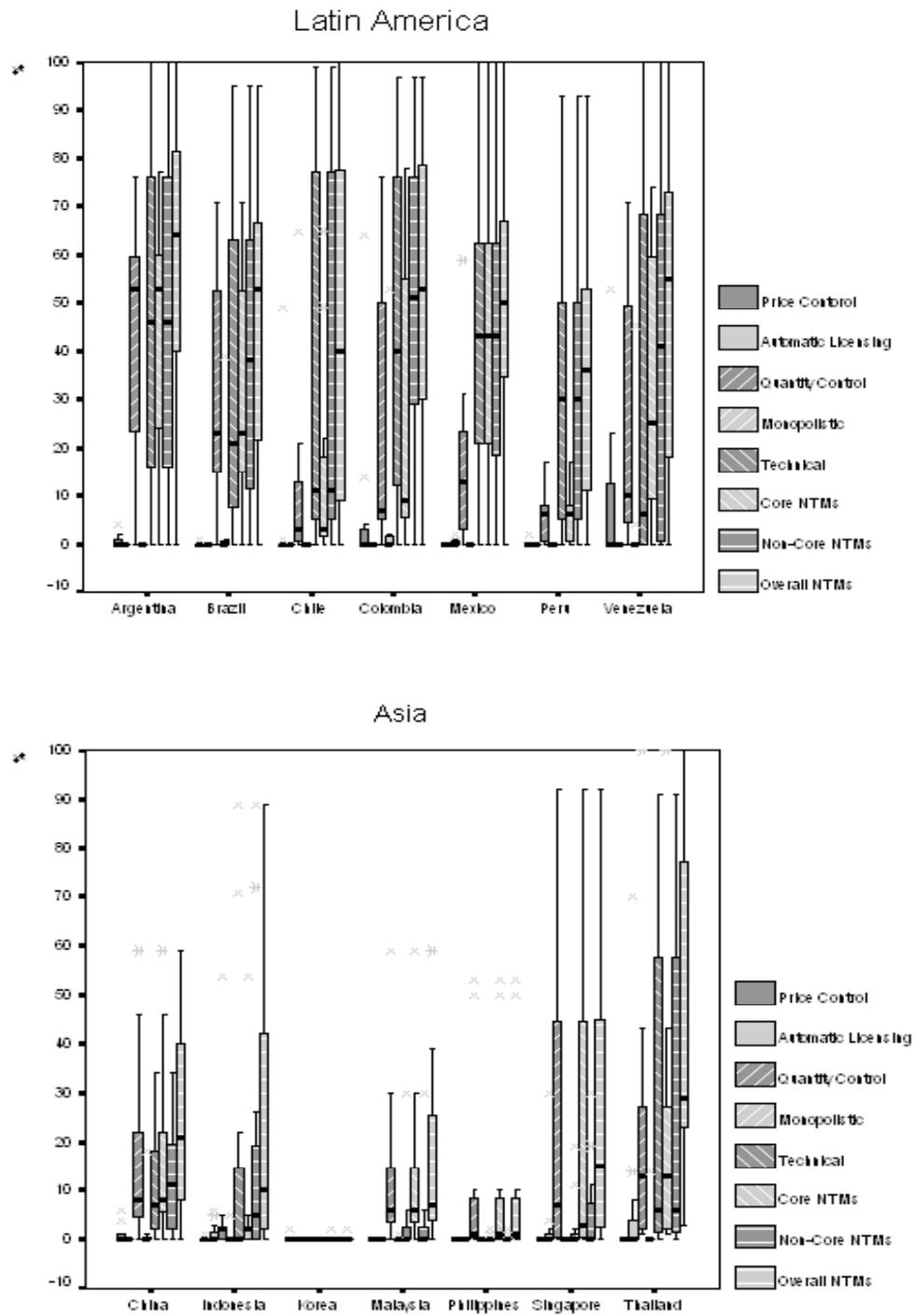
Figure 5 NTM Incidence in Latin America and Asia



Data Source: authors' calculation.

Notes: see notes for Figure 1.

Figure 6 NTM Incidence in Latin America and Asia by Country



Data Source: authors' calculation.

Notes: see notes for Figure 1

Figure 7 Trade and Regional Agreements Signed and Under Negotiation in Latin America and Asia-Pacific (at the end of 2003)

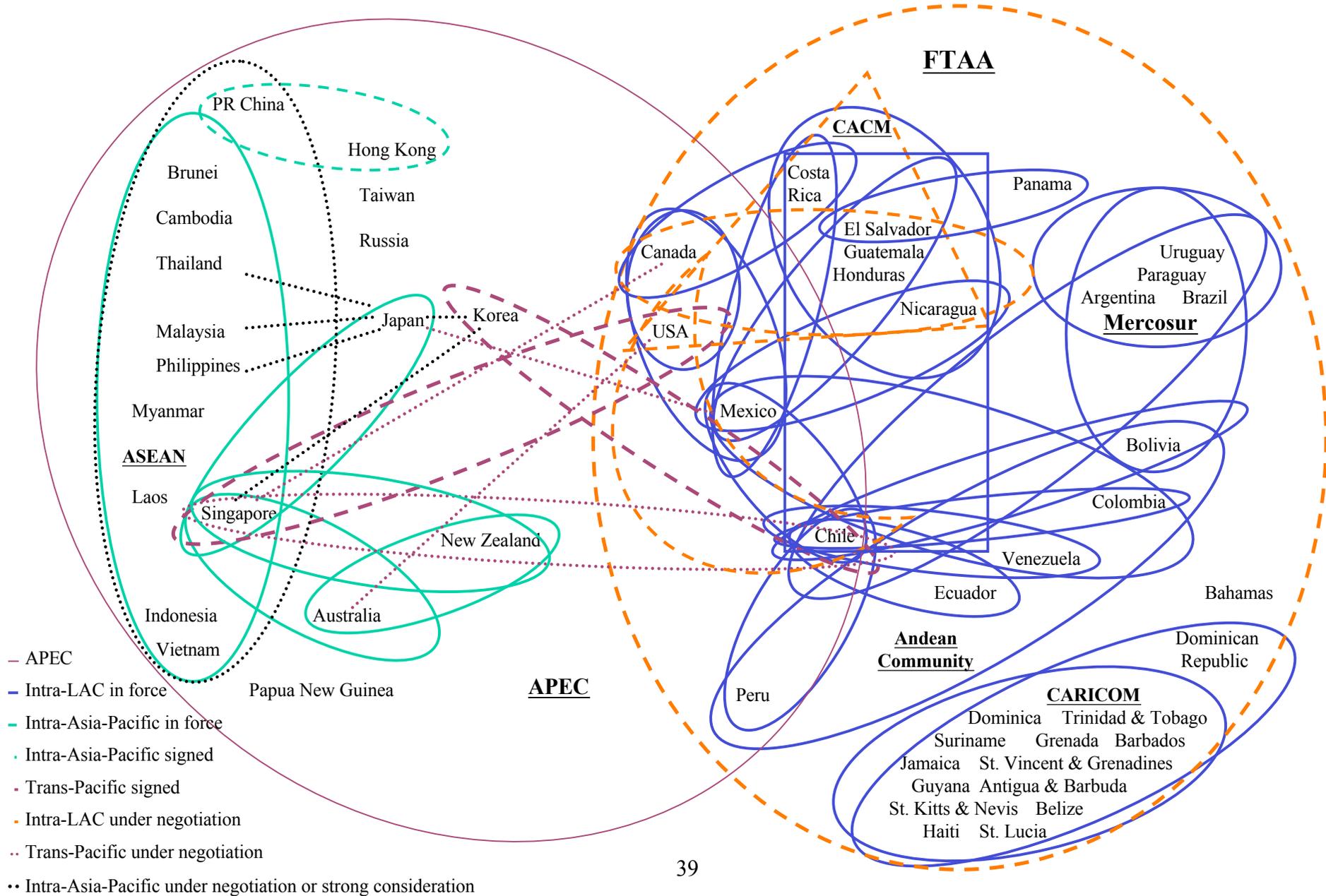
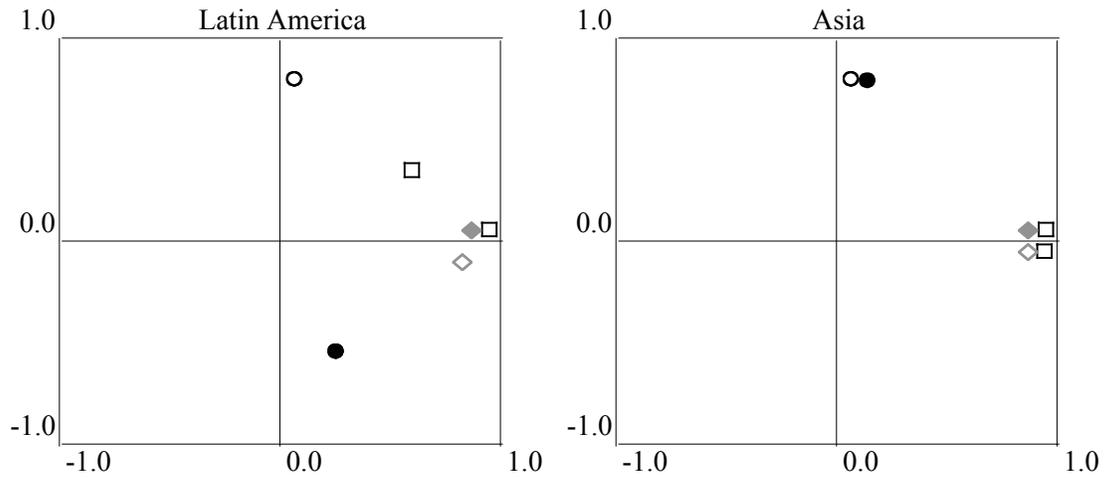


Figure 8 Results of Factor Analysis: Regional Analysis

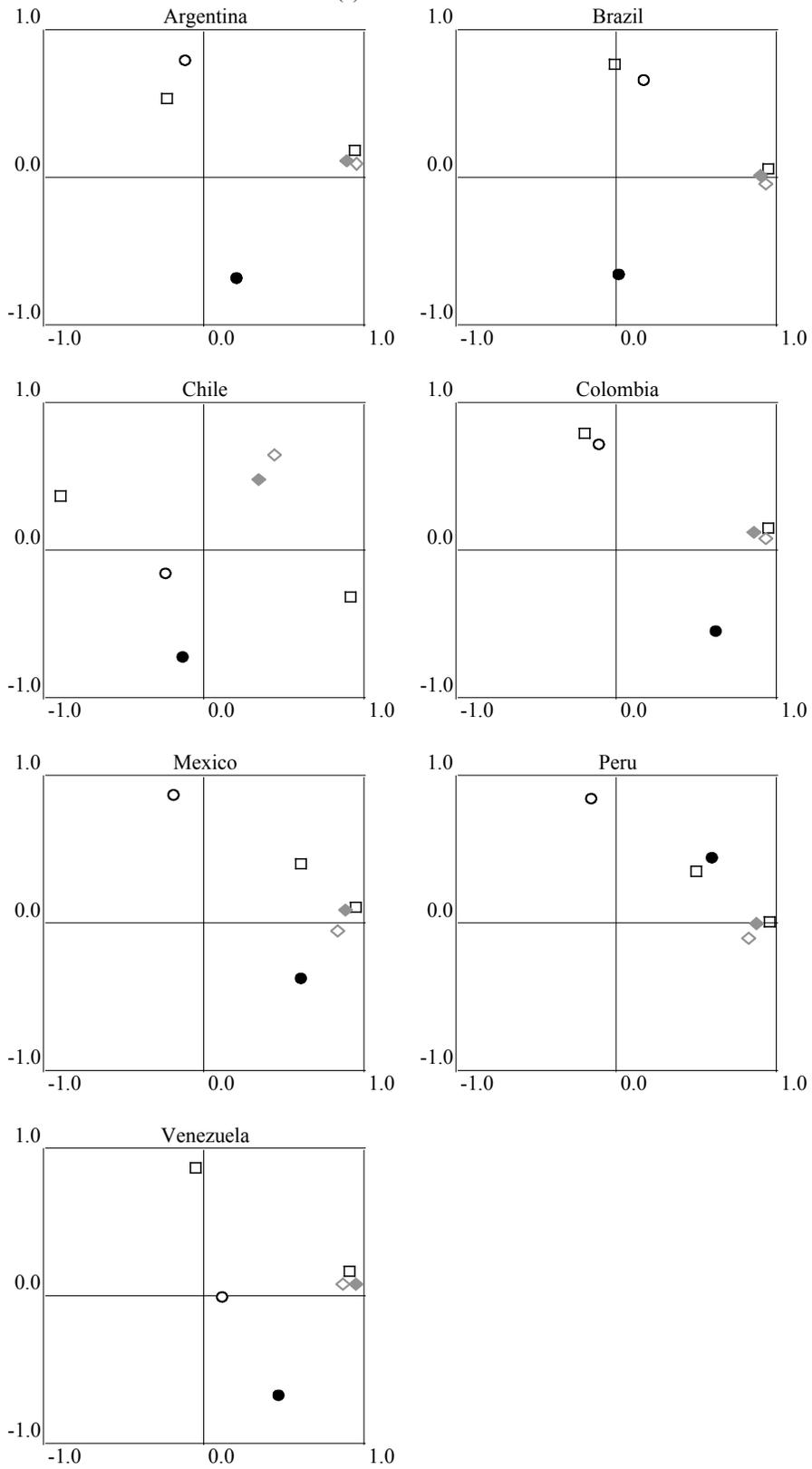


- tariffs (average) ● NTMs (average) ◆ preferential tariffs (average)
- tariffs (standard deviation) ○ NTMs (standard deviation) ◇ preferential tariffs (standard deviation)

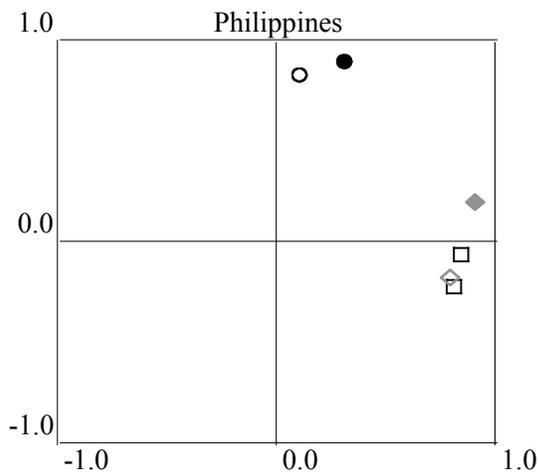
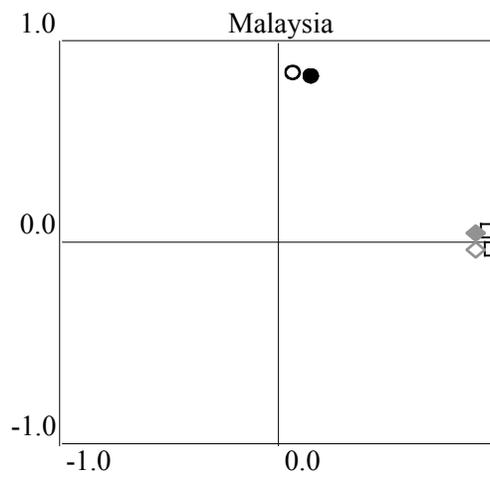
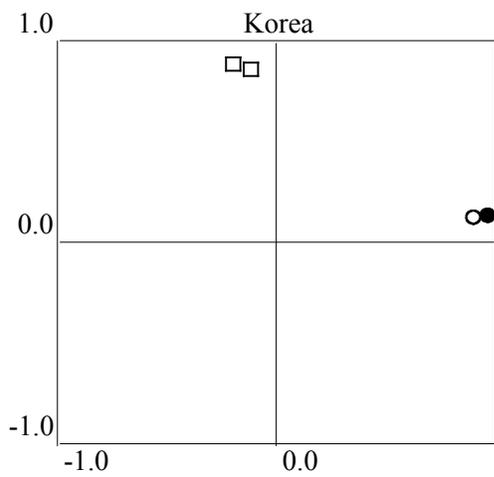
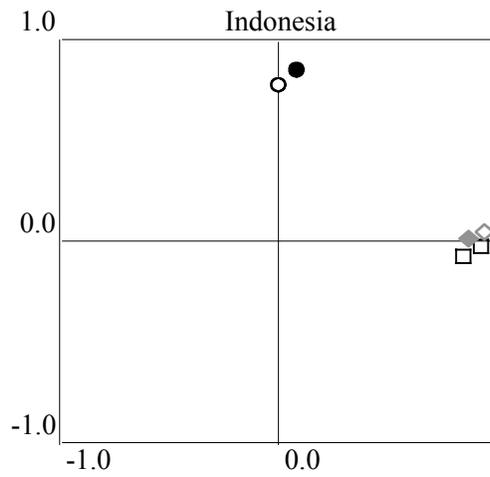
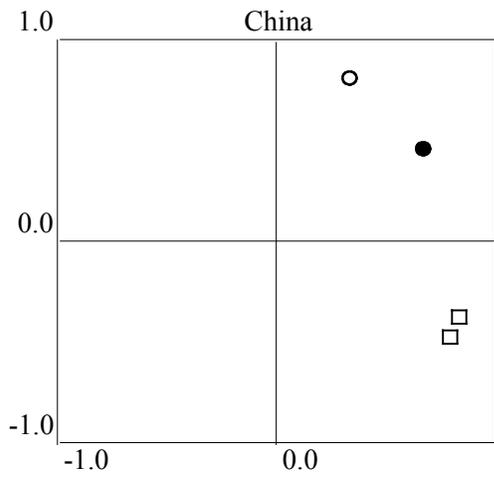
Notes: factor loading plots expressed in the space of common factors extracted from factor analysis. Factor scores are with mean of zero and standard deviation of one.

Data source: Authors' estimation.

Figure 9 Results of Factor Analysis: Country Analysis
 (a) Latin America



(b) Asia



- tariffs (average) ● NTMs (average) ◆ preferential tariffs (average)
- tariffs (standard deviation) ○ NTMs (standard deviation) ◇ preferential tariffs (standard deviation)

Note: see notes for Figure 8.

Data source: Authors' estimation.

Figure 10 Results of Factor Analysis: Sector Analysis

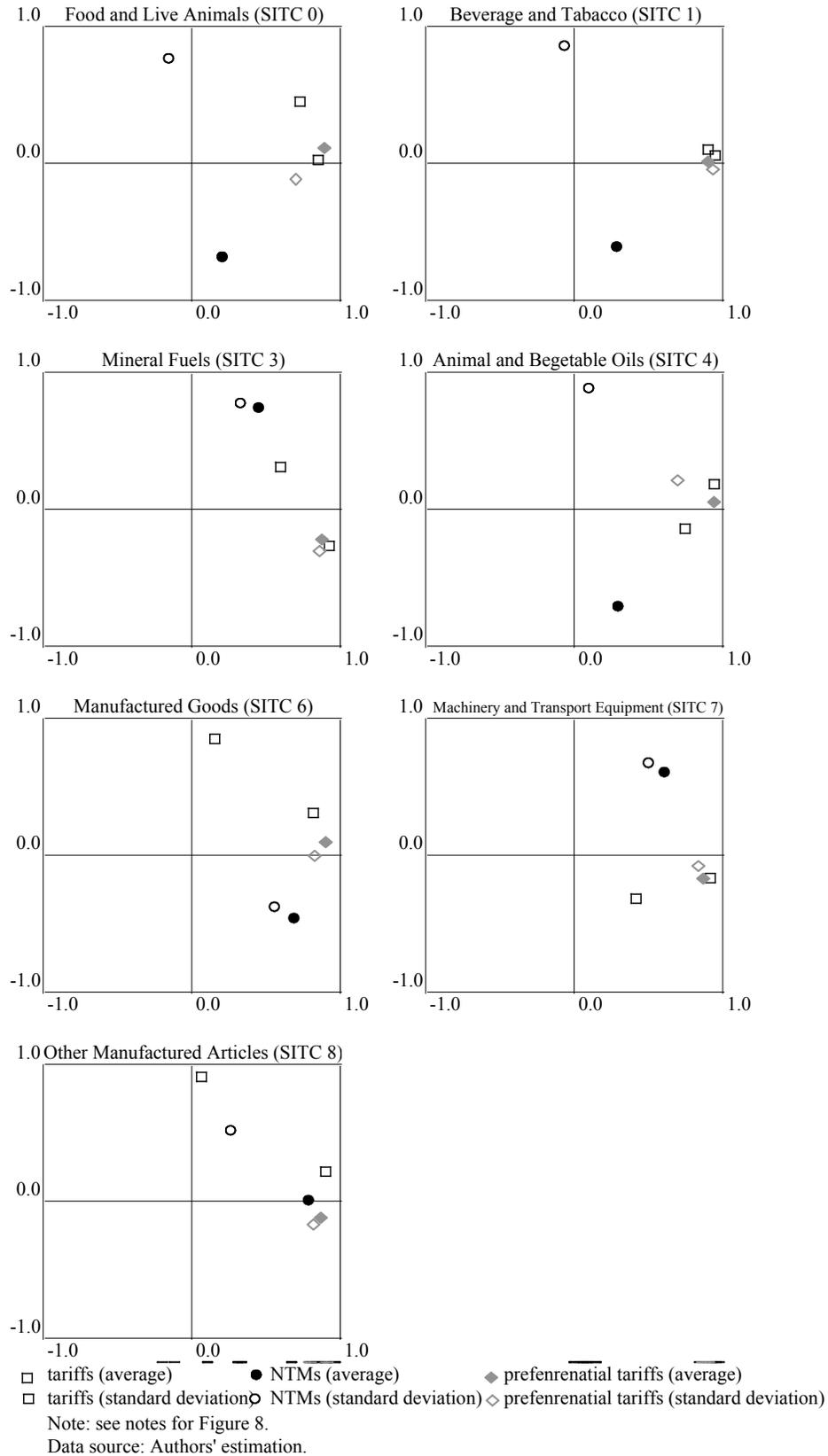


Table A.1 NTM Classification (UNCTAD)

1. Price control measures

- | | |
|---|--|
| <ul style="list-style-type: none"> (1) Administrative pricing <ul style="list-style-type: none"> minimum import prices (2) Voluntary export price restraint (3) Variable charges <ul style="list-style-type: none"> variable levies on imports variable components compensatory elements flexible import fees | <ul style="list-style-type: none"> (4) Anti-dumping measures <ul style="list-style-type: none"> anti-dumping investigations anti-dumping duties price undertakings (5) Countervailing measures <ul style="list-style-type: none"> countervailing investigations countervailing duties price undertakings |
|---|--|

2. Finance control measures

- | | |
|--|---|
| <ul style="list-style-type: none"> (1) Advance payments requirements <ul style="list-style-type: none"> advance import deposit cash margin requirement advance payment of customs duties refundable deposits for sensitive product categories (2) Multiple exchange rates | <ul style="list-style-type: none"> (3) Restrictive official foreign exchange allocation <ul style="list-style-type: none"> prohibition of foreign exchange allocation bank authorization (4) Regulations concerning terms of payment for imports (5) Transfer delays, queuing |
|--|---|

3. Automatic licensing measures

- | | |
|---|---|
| <ul style="list-style-type: none"> (1) Automatic license (2) Import monitoring <ul style="list-style-type: none"> retrospective surveillance prior surveillance prior surveillance for sensitive product categories | <ul style="list-style-type: none"> (3) Surrender requirement |
|---|---|

4. Quantity control measures

- | | |
|--|---|
| <ul style="list-style-type: none"> (1) Non-automatic licensing <ul style="list-style-type: none"> license with no specific ex-ante criteria license for selected purchasers license for specified use <ul style="list-style-type: none"> - linked with export trade - for purpose other than exports license linked with local production <ul style="list-style-type: none"> - purchase of local goods - local content requirement - barter or counter trade license linked with non-official foreign exchange <ul style="list-style-type: none"> - external foreign exchange - importers own foreign exchange license combined with or replaced by special import authorization prior authorization for sensitive product categories (2) Import quotas (import restrictions) <ul style="list-style-type: none"> global quotas <ul style="list-style-type: none"> - unallocated - allocated to exporting economies bilateral quotas seasonal quotas quotas linked with export performance quotas linked with purchase of local goods quotas for sensitive product categories quotas for political reasons (embargo) | <ul style="list-style-type: none"> (3) Prohibition <ul style="list-style-type: none"> suspension of issuance licenses seasonal prohibition temporary prohibition import diversification prohibition on the basis of origin prohibition for sensitive product categories prohibition for political reasons (embargo) (4) Export restraint arrangements <ul style="list-style-type: none"> voluntary export restraint arrangements orderly marketing arrangements multi-fiber arrangement (MFA) <ul style="list-style-type: none"> - quota agreement - consultation agreement - administrative cooperation agreement export restraint arrangements on textiles outside MFA (5) Enterprise-specific restrictions <ul style="list-style-type: none"> selective approval of importers enterprise-specific quota |
|--|---|

5. Monopolistic measures

- | | |
|--|--|
| <ul style="list-style-type: none"> (1) Single channel for imports <ul style="list-style-type: none"> state trading administration sole importing agency single channel for imports for sensitive product categories | <ul style="list-style-type: none"> (2) Compulsory national services <ul style="list-style-type: none"> compulsory national insurance compulsory national transport |
|--|--|

6. Technical measures

- | | |
|--|---|
| <ul style="list-style-type: none"> (1) Technical regulations <ul style="list-style-type: none"> product characteristics requirements marking (trademarks) requirements labeling requirements packaging requirements testing, inspection and quarantine requirements information requirements | <ul style="list-style-type: none"> (2) Pre-shipment inspection (3) Special customs formalities (4) Obligation to return used product |
|--|---|
-

Data Source: UNCTAD.

Table A.2 Reported NTMs: the Case of Thailand

Categorized Type	Description	Categorized Type	Description
3-(1)	Automatic licence	4-(3)	Prohibition to protect human health
3-(2)	Prior surveillance for health reasons	4-(3)	Prohibition to protect environment
4-(1)	Licence with no specific ex-ante criteria	4-(3)	Prohibition to protect wildlife
4-(1)	Licence for selected purchasers	5-(1)	Sole trading administration
4-(1)	Licence linked with purchase of local goods	5-(1)	Sole importing agency
4-(1)	Authorization for human health protection	6-(1)	Product characteristics requirements to protect human health
4-(1)	Authorization to protect environment	6-(1)	Product characteristics requirements to protect environment
4-(1)	Authorization to protect wildlife	6-(1)	Product characteristics requirements to prevent drug abuse
4-(1)	Authorization to ensure national security	6-(1)	Product characteristics requirements to ensure human safety
4-(1)	Authorization, n.e.s.	6-(1)	Labelling requirements to protect human health
		6-(1)	Testing, inspection or quarantine requirements to protect environmen

Note: The categorization of measures above is conducted by authors.

Table A.3 Preferential Tariff Rates in Latin America, 1999-2000

	Given/ Receiving	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Mexico	Peru	Paraguay	Uruguay	Venezuela	Preferential tariffs (average)	MFN tariffs (average)
All Products	Argentina		7.7	0	7.6	11.9	10.2	11.1	11.9	0.1	0.1	12.1	7.3	15.5
	Bolivia	5.4		5.4	8.6	0	0	2	0	5.4	5.4	0	3.2	9.7
	Brazil	0	6.2		6.5	11.8	9.4	12.9	11.8	0.2	0.1	11.8	7.1	15.7
	Chile	4.1	7	4.1		0.9	0.3	9.1	5.6	4	4	0.2	3.9	9.9
	Colombia	10.9	0	11.1	1.3		0	7	4.2	9.4	10.5	0	5.4	12.2
	Ecuador	13.5	0	13.7	0.6	0		13.7	4.3	8.9	8.8	0	6.4	14.2
	Mexico	13	2.9	15.2	14.1	6.5	11.4		13.1	8.9	4.2	8.1	9.7	17.8
	Peru	12.8	0	13	9.4	4.1	1.6	12.8		12.2	12.6	3.9	8.2	13.6
	Paraguay	0.4	6	0.4	6.2	12.2	8.1	12.1	12.1		0.4	11.9	7	13.1
	Uruguay	0.5	6.3	0.5	6.4	12.1	8	6.7	12.1	0.7		12.1	6.6	13.7
Venezuela	11.6	0	11.7	0.3	0	0	8.5	4	9.4	10.9		5.6	12.8	
Agriculture	Argentina		5.1	0	4.5	9.5	7	8.1	9.1	0	0	9.5	5.3	13.5
	Bolivia	6		6	8.1	0	0	6.5	0	5.8	5.9	0	3.8	9.9
	Brazil	0	3.2		3.7	9.7	7.4	10.8	9.7	0	0	9.7	5.4	13.1
	Chile	3.3	5.6	3.3		2	1.3	8.9	4.7	3.3	3.3	0.6	3.6	10
	Colombia	13.7	0	14.1	3.4		0	11.4	3.1	10.9	13	0	7	16.1
	Ecuador	17	0	17.4	3.2	0		17.9	3.1	10.7	9.6	0	7.9	18.3
	Mexico	19.3	13.7	21.7	20.5	14.4	17.4		19.3	13.1	10.6	14.2	16.4	24.8
	Peru	14.6	0	15.1	11.4	3.5	1.8	15.8		13.5	14.4	3.3	9.3	16.6
	Paraguay	0.3	4.7	0.3	4.1	12.4	7.6	12.4	12.3		0.3	12.4	6.7	13.3
	Uruguay	0.3	4.6	0.3	3.9	11.5	6.7	7	11.4	0.4		11.5	5.8	13
Venezuela	15.1	0	15.3	1.3	0	0	11.3	3.1	11.8	14.5		7.2	16.9	
Manufactures	Argentina		8	0	8	12.2	10.6	11.5	12.3	0.1	0.1	12.5	7.5	15.8
	Bolivia	5.3		5.3	8.6	0	0	1.3	0	5.3	5.3	0	3.1	9.6
	Brazil	0	6.7		6.9	12.1	9.7	13.2	12.1	0.2	0	12.1	7.3	16.1
	Chile	4.1	7.2	4.1		0.6	0	9.1	5.7	4.1	4.1	0.1	3.9	9.9
	Colombia	10.4	0	10.6	0.9		0	6.3	4.3	9	10	0	5.2	11.5
	Ecuador	12.8	0	13.1	0.1	0		12.9	4.5	8.5	8.7	0	6.1	13.6
	Mexico	11.9	1.1	14.1	13	5.1	10.4		12	8.1	3.2	7	8.6	16.7
	Peru	12.4	0	12.6	9.1	4.1	1.5	12.3		12	12.3	3.9	8	13.1
	Paraguay	0.4	6.1	0.4	6.5	12.1	8.2	12	12		0.4	11.8	7	13.1
	Uruguay	0.5	6.5	0.5	6.7	12.2	8.1	6.6	12.2	0.7		12.2	6.6	13.8
Venezuela	11	0	11	0.1	0	0	8	4.1	9	10.3		5.4	12.1	

Data source: IDB, Integration, Trade and Hemispheric Issues Division.