



KEY STATISTICS AND TRENDS

in Trade Policy





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Note

This study is a product of the Trade Analysis Branch, Division on International Trade in Goods and Services, and Commodities (DITC), UNCTAD Secretariat. It is part of a larger effort by UNCTAD to analyze trade-related issues of particular importance for developing countries, as requested by the Doha Mandate of UNCTAD XIII. Christina Bodouroglou and Alessandro Nicita contributed to this study.

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Introductory note

The purpose of this study is to provide some a snapshot on policies affecting international trade over the recent and medium-term period. It is intended as a regular monitoring exercise so as to provide interested readers with informative data and analysis on a regular basis.

The study is organized in several sections. The first part presents statistics related to tariffs. The second part focuses on preferential margins. The third section presents data related to tariff policy space. The fourth section illustrates selected statistics related to preferential trade agreements. The fifth part presents new data on non-tariff measures, and it is followed by a section on trade defence measures. The final section presents statistics on the exchange rate. All trade policy statistics presented here apply only on goods (merchandise). Trade policies related to services are not included in any of the statistics presented here.

All statistics have been computed by the UNCTAD secretariat and rely on underlining data from various data sources. Raw data on tariffs and non-tariff measures originates from UNCTAD TRAINS database. Trade data to compute weighted averages is from UN COMTRADE. Raw data on bound tariffs is from the WTO tariff data base. Data on trade defence measure is from the World Bank Temporary Trade Barriers database. Data related to preferential trade agreements, is derived from various databases including the WTO regional trade agreement gateway, the World Bank global preferential agreement database, the NSF-Kellogg Institute Database on Economic Integration Agreements and the J. De Sousa database on preferential agreements. Yearly exchange rate data and other macro level data used in the figures originate from UNCTADSTAT. Monthly exchange rate data used to compute volatility indices is sourced from Bloomberg. The underlining tariff data is at the HS-6 digit level. The data has been standardized to assure time and cross country comparison. Data covers more than 150 countries representing more than 95 per cent of world trade. Data on non-tariff measures is available only for about 40 countries and therefore may not be representative of world trade.

For the purpose of this study, countries are categorized by geographic region and distinguished between developed and developing countries. Major developing economies comprise those commonly categorized as such in UNCTAD statistics. Transition Economies, when not treated as a single group, are included in the broad aggregate of developing countries. Following the Broad Economic Categories (BEC) classification, international trade is classified into four major economic categories, depending on the stage of processing and use; namely, primary, intermediate, consumer and capital products. Product sectors are categorized according to the International Standard Industrial Classification (ISIC) augmented by five broad agricultural sectors based on the Harmonized System classification (HS).

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Overview

The last decade has seen the process of global tariff liberalization continue largely unabated. Developed countries further reduced tariffs or maintained these at the very low levels of 2002, while the vast majority of developing countries reduced their tariffs, in some cases quite substantially. Tariff liberalization occurred to a greater extent in the pre-crisis period (2002-2007), with the average level of developing country tariff falling by almost 5 per cent. Since 2008 tariff liberalization has continued, but at a slower pace. In 2012, with the exception of some countries mainly in Sub-Saharan Africa, the average tariffs applied by developing countries on imported goods has generally been lower than 10 per cent. Overall, the average tariff on world trade in 2012 was about 2 per cent.

Tariff liberalization has proceeded at all levels: multilaterally, regionally, bilaterally and unilaterally. Many countries have reduced most favoured nation (MFN) tariffs, while the proliferation of preferential trade agreements (PTAs)¹ has contributed to further reducing applied tariffs. By 2012 almost 40 percent of international trade was fully liberalized under MFN terms, with an additional 35 percent free because of preferential regimes.

Despite a significant portion of international trade being duty-free under MFN and preferential rates, the remaining share is often subject to substantial tariffs. Relatively high tariffs remain in place in sensitive sectors and tariff peaks are present in many countries' tariff schedules. Tariff escalation is still widespread as tariffs on consumer products have not been substantially liberalized and remain much higher than those on primary or intermediates products. In addition, tariffs are on average still relatively high in sectors of key interest for low income countries including agriculture, apparel, textiles and tanning/leather products.

The overall trend of declining tariffs has also been a reflection of the increasing number of PTAs. Indeed, PTAs have greatly contributed to liberalizing and facilitating international trade, often beyond traditional tariff liberalization. However, as the majority of developing countries' PTAs has been regional (or bilateral with developed countries), tariffs remain relatively high for most inter-regional South-South trade. For example, East Asian exports still face average tariffs of more than 10 per cent in many other developing country regions.

The proliferation of PTAs has directly affected the structure and magnitude of preferential margins. Although the competitive gains or losses due to preferences are on average not large, they nevertheless have a substantial distortionary impact, especially with regard to intra-regional trade in some regions. The impact is greater in Latin America where regional trading partners enjoy average preferential margins of about 5 percentage points. For Sub-Saharan African exporters, the effects of the system of preferences, although often beneficial for them versus foreign competitors, are generally small. Distortionary effects due to tariff preferences vary greatly across product and destination markets and can be quite substantial for some bilateral trade flows in specific product groups.

¹ PTAs are referred in this study to all types of preferential trade agreements, including regional trade agreements.

The proliferation of PTAs reflects in a reduction of developing countries' policy space. Although many developing countries maintain substantial policy space within their WTO tariff bindings, their legal ability to raise tariffs further depends on commitments related to PTAs. When PTAs are considered, about half of the tariff water present in WTO commitments disappears.

Although tariffs have declined, international trade is regulated and influenced by a wide array of policies and instruments. These instruments include many forms of non-tariff measures (NTMs) such as quotas, licensing, pre-shipment inspections, imports and export regulations, as well as technical barriers to trade (TBT) and sanitary and phytosanitary measures (SPS). Although available data does not permit calculating accurate trends in their use, SPS and TBT are believed to have become increasingly important. In 2012, technical measures in their various forms regulated about two-thirds of world trade. TBT are particularly pervasive in the case of energy products, textiles, but also with regard to many light manufacturing goods. Forms of SPS are applied to almost the totality of agricultural trade. Technical measures are more often applied by high income countries, their use generally increasing with countries stage of development. Other, non-technical forms of NTMs are also widely used, but more so by lower income countries. On average, non-technical NTMs such as quantity and price measures still affect about 25 per cent of world trade.

Over the past few years there has been an increase in the use of trade defence measures within the WTO framework (antidumping, countervailing duties and safeguards), especially in relation to the number of cases initiated by emerging developing countries. Trade defence measures have largely aimed at protecting specific sectors (in particular, chemicals, basic metals and textiles, but also agriculture) against imports from selected countries (in particular East Asia).

The economic turbulence of the last few years has been reflected in exchange rate markets, both for developing and developed countries' currencies. Exchange rates movements and volatility have played an important role in shaping international trade in the post crisis period as they influenced countries' external competitiveness. External competitiveness as measured by the real effective exchange rate has deteriorated in the majority of developing countries since 2007. This trend was also substantiated by the overall appreciation of many developing countries' currencies versus the US dollar. With regard to East Asian currencies, the appreciation of their effective exchange rate was much less pronounced than that vis-à-vis the US dollar.

1. Tariffs

During the last 10 years tariffs on international trade flows have been further reduced. As of 2012, the average tariff applied on imports is less than 1 per cent in developed countries and averages between 4 and 10 per cent in developing countries regions. Lower import tariffs are mirrored by more liberal market access conditions, especially for developing countries. In 2012, the average tariff faced by exports ranged from 1 per cent for Latin America to about 3.5 for South Asia.

Figure 1 – Average Import and Export Restrictiveness, by Region



Figure 1a portrays the tariff trade restrictiveness index (TTRI) which serves as an indicator summarizing the trade policy stance of a country. The TTRI calculates the uniform tariff that will keep a country's overall imports at the current level when the country in fact has different tariffs for different goods. The market access counterpart (MA-TTRI) summarizes the same concept but for the case of exports (Figure 1b). Both indices are calculated on the basis of applied tariffs, including tariff preferences. During the last decade TTRI and MA-TTRI have on average declined. During the last decade tariffs generally did not create large restrictions on access to developed countries' markets. Nevertheless, despite a declining trend, developing country tariffs in many cases remain quite trade restrictive. Tariff restrictiveness is relatively higher in West Asia and North Africa (10 per cent) as well as in South Asia and in Sub-Saharan Africa (about 8 per cent). Tariff liberalization of the past decade is mirrored by more liberal market access conditions, especially for some developing country regions. Exports from Latin America and Transition Economies face the most liberal market access with a MA-TTRI of about 1 per cent in 2012. This is largely due to membership in preferential trade agreements, and an export composition tilted towards energy products that typically face low tariffs. In contrast, exports from East and South Asia face a higher average level of restrictiveness than other regions. For many of these countries, further negotiations with major trading partners aimed at lowering tariffs can still produce substantial export gains.

Since 2002 tariff restrictions have declined markedly in the large majority of developing countries. By 2012, mainly with the exception of some African countries, the average tariff imposed on imports has been less than 10 per cent. Tariff reductions have been especially pronounced in Latin American countries.

Figure 2 – Tariff and Market Access Liberalization for Developing Countries

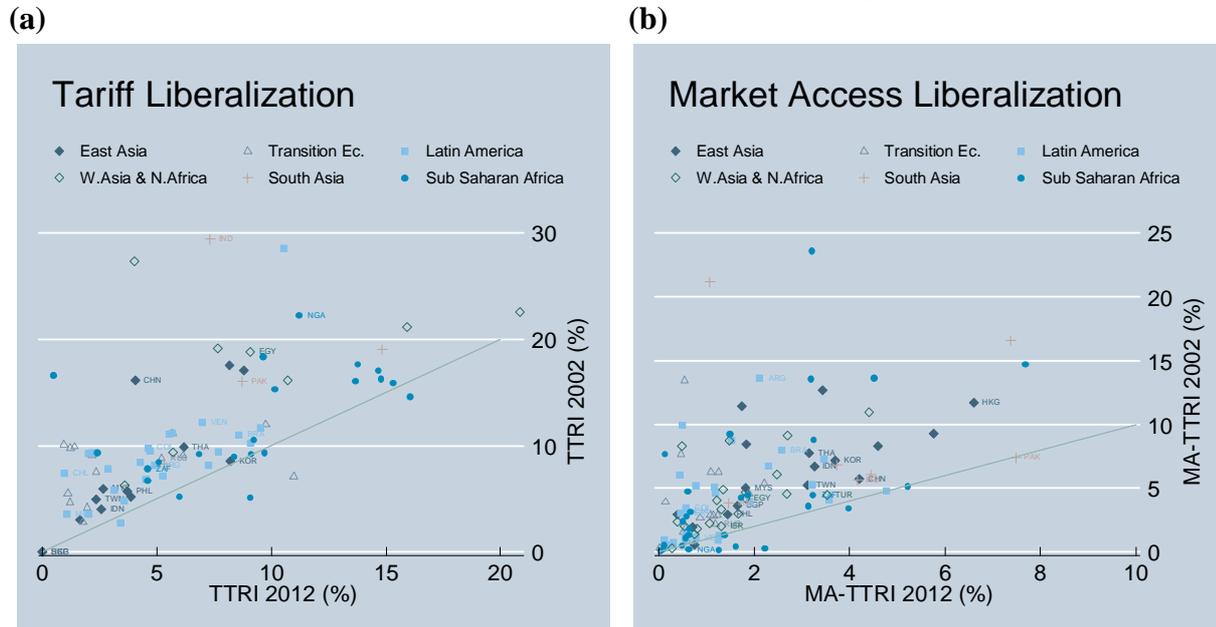
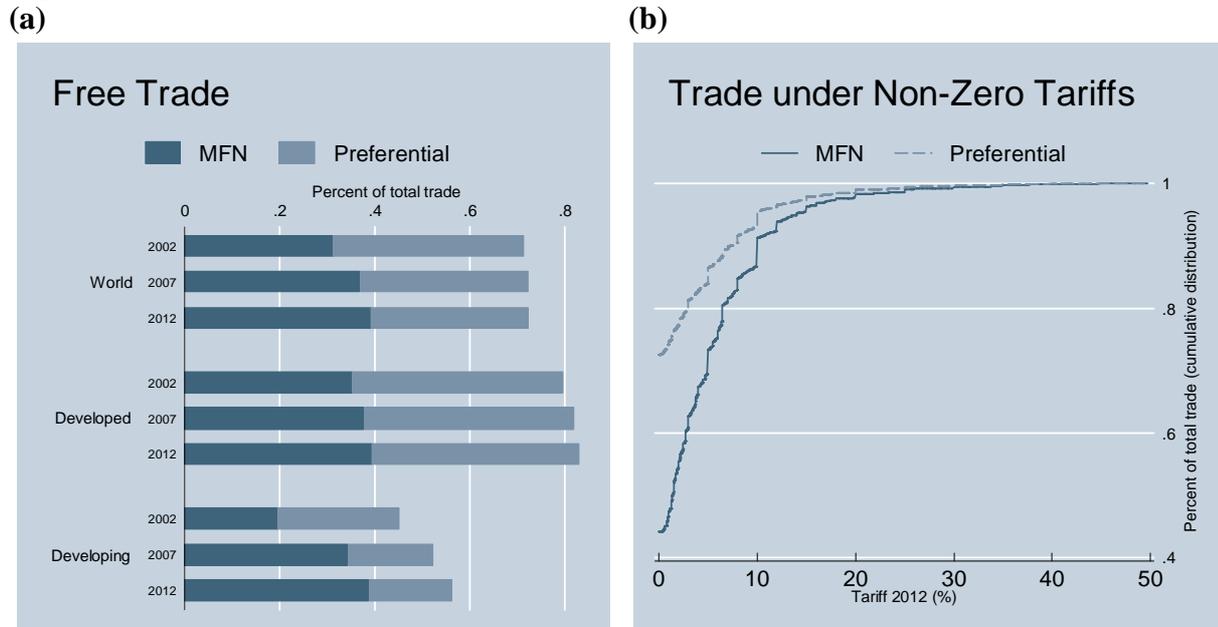


Figure 2a reports the country level TTRI for 2002 and 2012, as positioned against a 45 degree line. Tariff restrictiveness has on average declined in the large majority of developing countries. Tariff liberalization has been quite widespread in Latin American countries, partly owing to the increase in regional integration. In 2012, most Latin American countries imposed an average tariff on their imports of below 10 per cent. An even lower tariff was imposed by the majority of countries in East Asia and Transition Economies (about 5 per cent). On the other hand, a number of countries in Sub-Saharan Africa as well as West Asia and North Africa still maintain a relatively restrictive tariff policy, exhibiting a TTRI of over 10 per cent.

Tariff liberalization of the last decade is reflected in an overall improvement in market access conditions for the large majority of developing countries (Figure 2b). Significant improvements are observed in many East Asian countries as well as certain Latin American countries. While most Sub-Saharan African countries saw little reduction in average export tariffs between 2002 and 2012, rates are nevertheless comparatively low. In 2012, most countries faced an average level of taxation on their exports of less than 5 percentage points.

International trade is largely free from tariffs both as a result of zero MFN duties and of preferential access. By 2012 almost 40 per cent of international trade was fully liberalized under MFN terms, while an additional 35 per cent was free because of preferential access. However, tariffs applied to the remainder of international trade are relatively high. In 2012 about 10 per cent of international trade faced MFN tariffs of over 10 per cent and preferential tariffs of over 7 per cent.

Figure 3 - International Trade subject to MFN and Preferential Tariffs

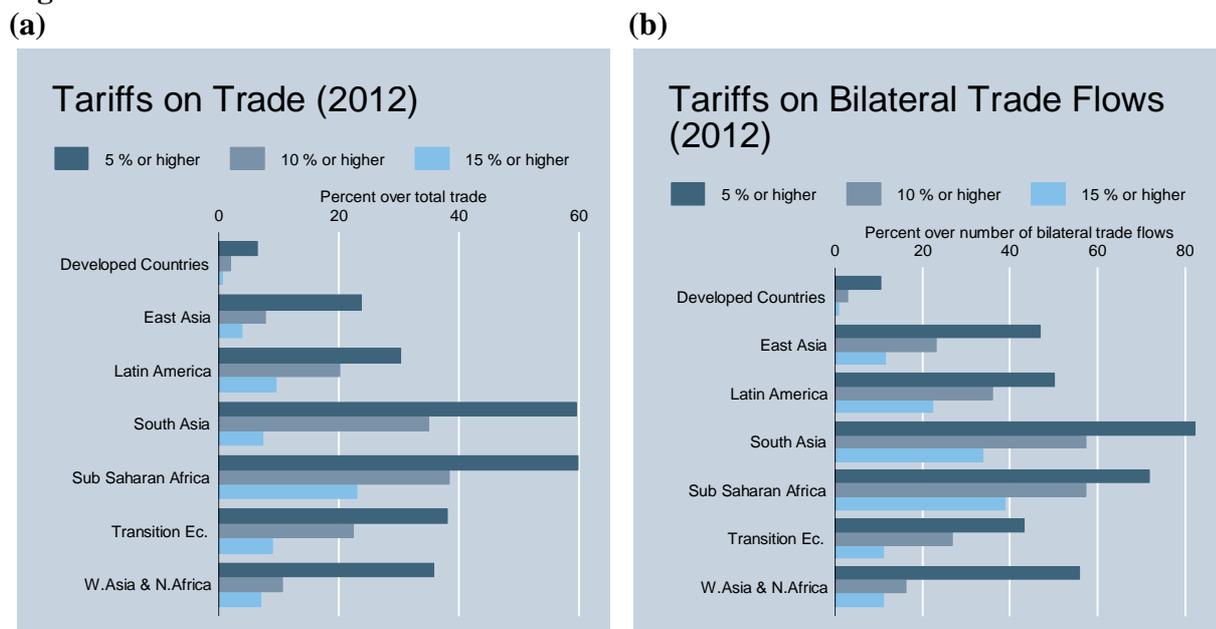


International trade has been largely liberalized owing to both zero most-favoured-nation (MFN) tariffs as well as preferential duty-free access. In 2012, around 40 per cent of world trade was free under MFN regimes, with an additional 35 per cent exempt from tariffs due to preferential access (Figure 3a). Between 2002 and 2012 the share of global trade covered by zero MFN tariffs rose by around 10 per cent, yet an equivalent fall in the share covered by duty-free preferences left the overall proportion of trade freed under MFN and preferential tariffs constant at three-quarters of total trade. The share of developed country trade that is free under zero MFN rates and preferential access remained high at over 80 per cent in 2012, largely unchanged since 2002. The corresponding share of developing country trade has risen over the past decade to reach almost 60 per cent, primarily driven by a higher coverage of trade coming under MFN rates that have been bound at zero.

Despite a significant portion of international trade being duty-free under MFN and preferential rates, remaining trade flows can be subject to relatively high tariffs. As shown in Figure 3b, around 10 per cent of global trade faced MFN and preferential tariffs in excess of 10 per cent and 7 per cent, respectively, in 2012.

Even though a large fraction of international trade is duty free, this is not the case for a substantial share of imports of many developing countries. About 60 per cent of South Asian and Sub-Saharan African imports face an average tariff rate of over 5 per cent. Even in the case of East Asia, about one-fourth of imports are taxed at a rate of 5 per cent or higher. The degree of tariff restrictions is greater when considering the number of bilateral trade flows rather than the value of total trade. Notably, about 40 per cent of trade flows of Sub-Saharan African countries are subject to import tariffs of 15 per cent or higher.

Figure 4 – Tariffs Restrictions on Total and Bilateral Trade

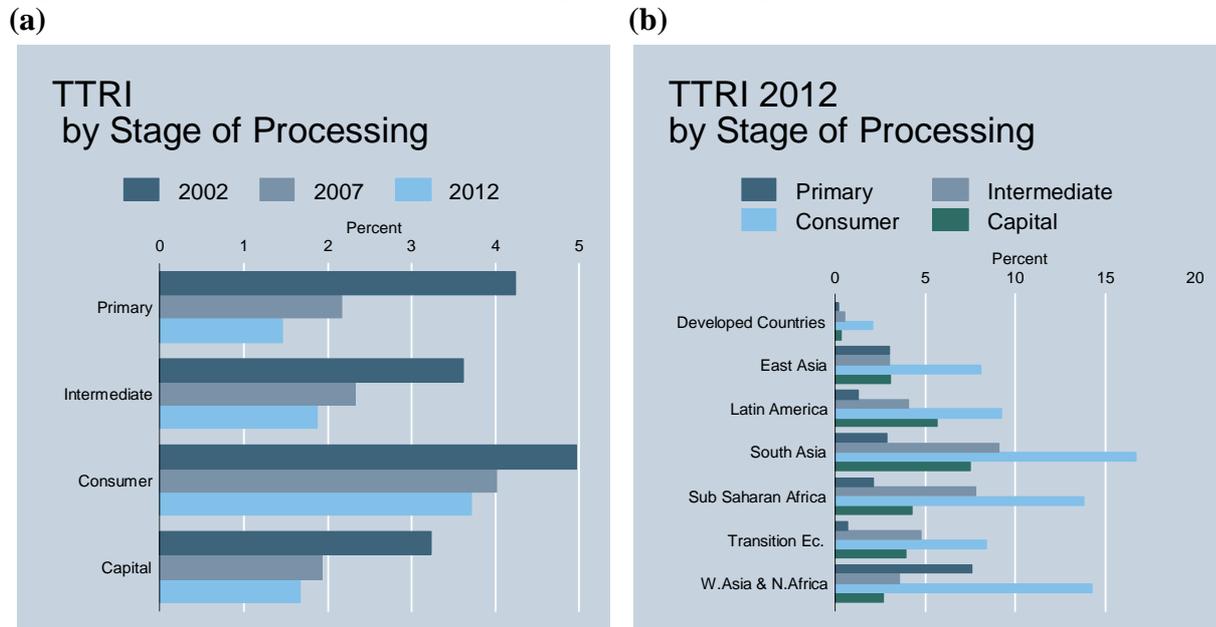


Despite the fact that a significant part of international trade is free of duties, this is not true for a substantial share of imports of numerous developing countries. As illustrated in Figure 4a, in developed countries, only a small fraction of imports face duties exceeding 5 per cent. However, in all developing country regions, a much higher share of more than 20 per cent of imports faces tariffs surpassing 5 per cent. Indeed, up to 60 per cent of South Asian and Sub-Saharan African imports were subject to tariffs of over 5 per cent in 2012. Around a third of imports in these two regions were subject to even higher tariffs of over 10 per cent.

Tariffs become even more restrictive when calculated as a share of the number of bilateral trade flows as opposed to the value of trade (Figure 4b). For instance, in 2012 about 40 per cent of trade flows of Sub-Saharan African countries faced import tariffs equal to or over 15 per cent. This compares to just over 20 per cent of the trade value of these countries being subject to import tariffs of a similar magnitude.

Since 2002 trade liberalization has affected goods across all stages of production, but to a varying extent. Tariffs on consumer products have not been liberalized as much as those on other categories of goods. As of 2012, the tariff structure of both developed and developing countries is still evidential of tariff escalation along the stage of processing, with primary and intermediate products generally taxed at a fraction of the rates consumer products are taxed

Figure 5 – Tariff Restrictiveness, by Stage of Processing

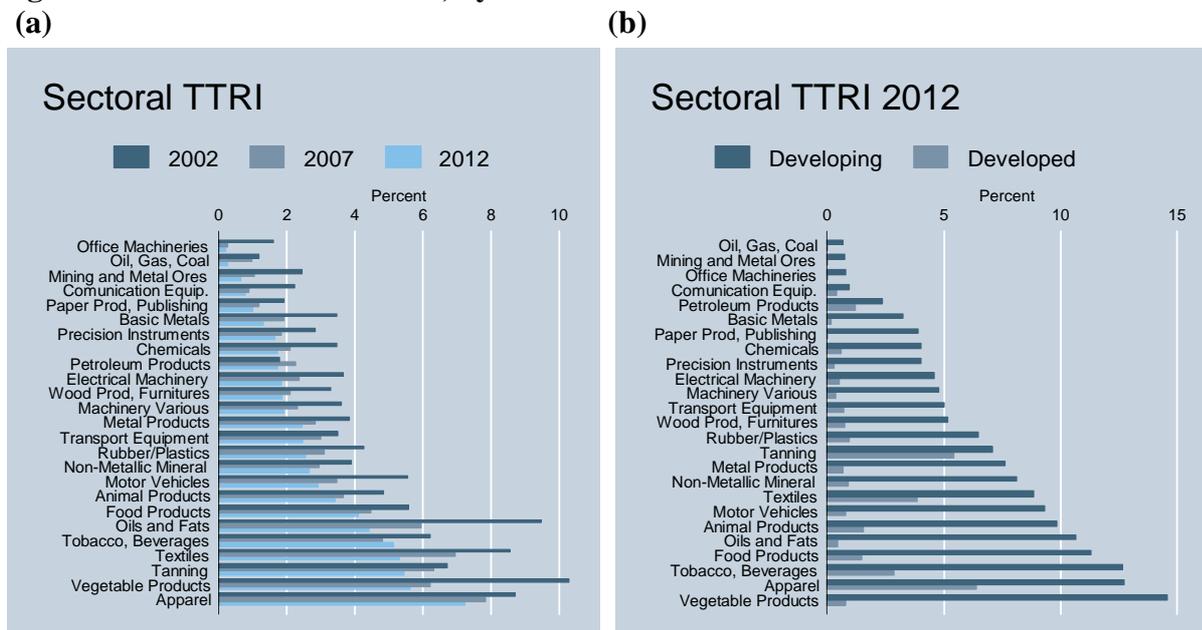


The overall tariff liberalization observed in international markets in the last 10 years is reflected in a lower TTRI for goods at all stage of processing (Figure 5a). The average TTRI of primary, intermediate and capital products has declined by almost half since 2002, with the most significant reduction occurring between 2002 and 2007. In 2012, the TTRI for these products ranged between 1.5 and 2 per cent. Trade in consumer products, although more liberalised now than in 2002, is still subject to relatively higher tariffs than other categories of products (about 3.8 per cent TTRI in 2012).

The tariff structure of both developed and developing countries is evidential of tariff escalation along the stage of processing, with primary and intermediates products generally taxed at a fraction of the rates consumer products are taxed (Figure 5b). Such a policy of tariff setting is often adopted as it encourages the domestic development of processing industries, by providing protection from foreign competition. Tariff escalation is also instrumental in improving the competitiveness of industries in the global economy whereby production processes are increasingly fragmented. In this regard, low tariffs on intermediates play an essential role as taxes on imports would increase production costs and thereby hinder the international competitiveness of exports. While tariffs on intermediates are very low in developed countries, this is not the case for many countries in Sub-Saharan Africa and South Asia where imports of intermediates face average TTRI of about 6 per cent and 8 per cent, respectively.

Tariff liberalization over the last decade has occurred in all economic sectors, but to a varying degree. Although declining, tariffs are on average still relatively high for agricultural products, apparel and textiles, and tanning. As of 2012, developing countries' trade restrictiveness tends to be higher in agricultural sectors and apparel, while developed countries maintain relatively high tariffs on agriculture, textiles, apparel and tanning.

Figure 6 – Tariff Restrictiveness, by Economic Sector



During the past decade tariffs have been liberalized across all economic sectors, although in some cases more than in others (Figure 6a). Tariffs are still relevant in restricting the trade of agricultural products, as well as textiles, apparel and tanning. On the other hand, tariffs do not play a significant role in restricting trade in most energy and raw material sectors, where the already low tariffs of 2002 have been further reduced. Tariff restrictions in the case of office machinery and communication equipment have also been largely eliminated.

Tariff restrictiveness is often associated with protection of economically sensitive sectors and therefore often exhibits a different pattern across countries at different stages of development (Figure 6b). Developing countries' trade restrictiveness tends to be higher in agricultural sectors and apparel. Developed countries' trade restrictiveness is relatively higher in agriculture, textiles, apparel and tanning.

Trade restrictiveness is very diverse across regional trade flows. With the exception of export flows from Sub-Saharan Africa, intra-regional trade is generally subject to lower TTRI than inter-regional trade. Across regions, tariffs are relatively higher for exports originating in East Asia and for imports into South Asia, Sub-Saharan Africa and West Asia and North Africa. The progressive tariff liberalization of the last 5 years is reflected in most, but not all, regional trade flows.

Table 1: Tariff Restrictiveness, Matrix by Region (changes 2007-2012 in smaller font)

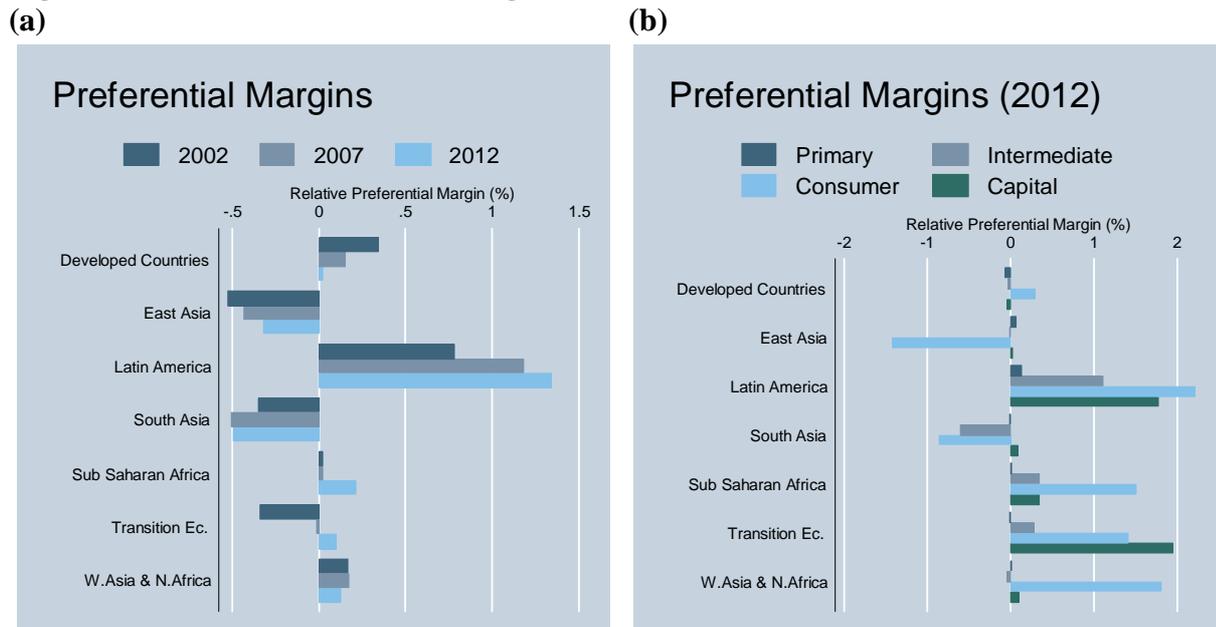
Importing Region	Exporting Region						
	Developed Countries	East Asia	Latin America	South Asia	Sub-Saharan Africa	Transition Economies	W.Asia & N.Africa
Developed Countries	1.0	2.1	0.4	3.1	0.1	0.6	0.3
	-0.6	-0.5	-0.9	-0.1	-0.6	0.1	-0.2
East Asia	5.8	3.0	2.5	2.5	1.9	1.8	1.4
	0.5	-0.4	-2.4	-0.9	0.4	-1.5	-0.5
Latin America	3.9	7.8	1.4	7.8	1.6	1.8	3.0
	0.0	-0.7	-0.5	-2.2	-0.8	-1.7	0.1
South Asia	9.4	11.2	1.9	3.0	3.3	6.5	3.4
	-4.1	-2.8	-13.8	-5.9	-8.9	-11.8	-7.4
Sub-Saharan Africa	6.6	11.2	9.0	6.9	4.1	5.4	5.7
	0.2	0.0	1.2	0.6	-0.9	-0.8	2.4
Transition Economies	4.8	6.6	4.7	6.5	2.5	0.4	6.6
	-1.3	-2.2	-3.5	-0.7	0.1	-2.2	-1.4
W.Asia & N.Africa	8.1	13.0	7.9	8.4	8.2	3.5	2.8
	-0.9	0.0	-2.4	0.0	-1.8	-3.6	0.4

Table 1 represents a matrix of average levels of tariffs imposed on trade flows between regions. Differences in the rates exhibited in Table 1 arise both from different patterns of market access due to preferential trade agreements as well as trade composition (as some goods are generally taxed more than others). The effect of regional trade agreements is reflected in the relatively lower degree of restrictiveness of intra-regional as opposed to inter-regional trade. However, this has not been the case for Sub-Saharan Africa where market access is still relatively more favourable in inter-regional than in intra-regional markets. This is partly due to preferences granted to least developed countries (LDCs) but also owing to the still high tariff barriers imposed by Sub-Saharan African countries on trade among each other. With regard to tariff restrictions imposed on South-South trade flows, a large number of such regional flows are still burdened by relatively high tariffs. For example, East Asian exports are subject to an average tariff of more than 10 per cent when sold to South Asia, Sub-Saharan Africa as well as West Asia and North Africa. Turning to assess recent changes in market access conditions, during the last 5 years some trade flows have been liberalized much more than others. This is largely a reflection of the diverse geographic patterns of regional trade agreements, but also because of shifting in the composition of trade flows. The latter is the main cause of the increase in tariff restrictiveness observed in the case of certain trade flows, as for example, Sub-Saharan African imports from West Asia and North Africa.

2. Preferential Margins

The system of tariff preferences affects international competitiveness by providing various countries with different market access conditions. On average, countries in Latin America benefit from large preferential margins. On the other hand, East Asian and South Asian exporters often face more restrictive market access conditions than their foreign competitors. Preferential margins tend to be larger for consumer goods than for intermediates. Preferential margins are negligible for primary products.

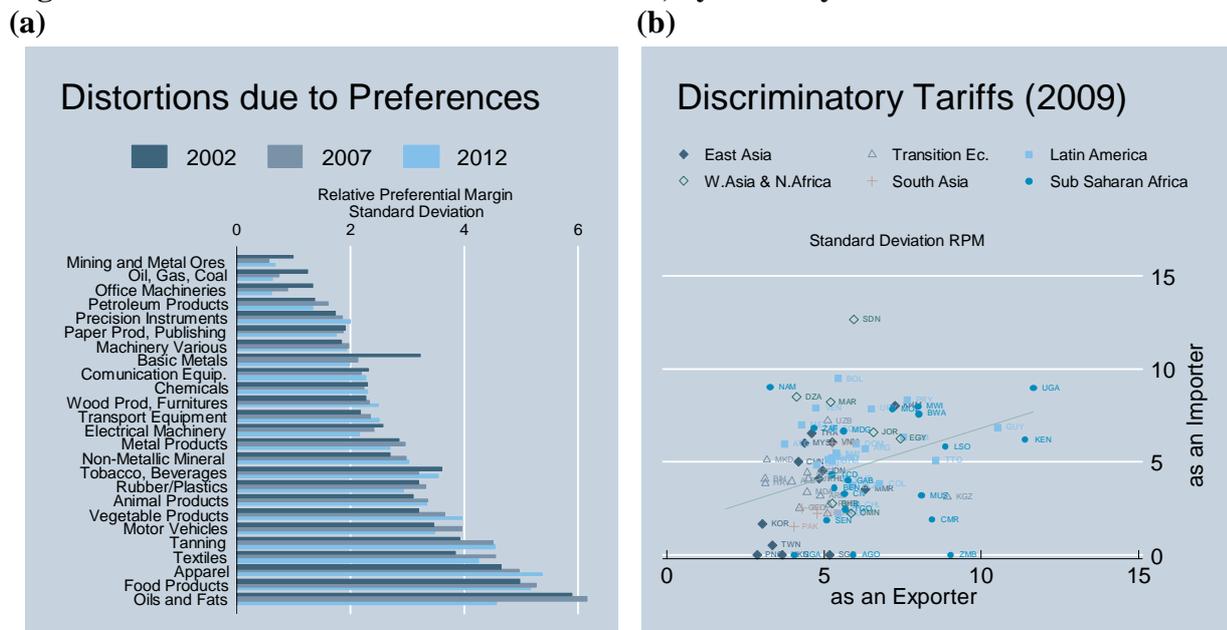
Figure 8 - Relative Preferential Margins



Figures 8a and 8b report relative preferential margins (RPM) averaged by region. RPMs provide a measure of export competitiveness of a given country by taking into consideration any preference provided by its trading partners to foreign competitors. RPM can be positive or negative, depending on the advantage or disadvantage a country has in terms of preferences with respect to other competing exporters. The RPM is exactly zero when there is no discrimination. As a result of regional trade agreements involving a relatively high external tariff, alongside bilateral agreements with major developed countries, Latin American countries' RPM is much larger than that of all other regions. By contrast, exporters in East Asia and South Asia often face market access conditions that are generally worse than those of their foreign competitors. RPMs have changed in the last 10 years with developed countries now facing a less favorable system of preferences and developing countries being in a more advantageous position. RPMs tend to be larger for consumer goods and smaller for primary products, indicating that the system of preferences has a more distortionary effect on the former than on the latter group of goods. Within the consumer product sector, East and South Asian exporters face more unfavourable market access conditions of a magnitude of about 1 per cent higher tariffs on average than their foreign competitors. Conversely, exporters of consumer products in other developing country regions benefit from more favourable market access conditions in the form of 1.4 per cent or more lower tariffs.

Although the discriminatory effects of preferences is not large in aggregate terms, it is nonetheless of greater relevance for certain economic sectors. Sectors with the highest degree of preference distortion include agriculture, textiles, apparel, tanning and motor vehicles. Sectors with low levels of distortion include metals, energy and office machinery. Trade distortions caused by preferences also differ by country. On the import side, Latin American countries have the most discriminatory tariff structure. On the export side, Sub-Saharan African countries often face very diverse international market access conditions.

Figure 9 – Trade Distortions due to Preferences, by Country and Sector



The system of preferences influences international trade flows by applying different tariffs to identical products depending on their origin. This affects exporters’ competitiveness, therefore resulting in a distortionary impact on trade. Figure 9a reports the standard deviation of the RPM for each economic sector. Such a measure provides an indication of the level of discrimination in market access conditions (and therefore distortion) at the sectoral level. Across economic sectors, those facing the highest levels of distortion include agriculture, textiles, apparel, tanning and motor vehicles. Moreover, for many sectors the level of distortions has not abated since 2002. Distortions have abated in sectors where tariffs are less discriminatory such as metals, energy and office machinery, largely owing to further MFN liberalization. This implies that preferences, although on average not very discriminatory, still have large discriminatory effects in the case of particular sectors. Figure 9b reports the standard deviation of the RPM at the country level both for imports and exports. On the import side, Latin American countries have the most discriminatory tariff structure. On the export side, Sub-Saharan African countries often face very diverse international market access conditions. In general, countries with tariff structure discriminating against trading partners are also those facing more diverse market access conditions for their exports.

Owing to the fact that trade agreements are often regional, the system of preferences tends to favour regional versus inter-regional trade. Still, the magnitude of the effect of preferences differs widely across regions. Latin American countries enjoy the highest preferential margins in trading with regional partners, estimated at about 5 percentage points. For Sub-Saharan African exporters, the system of preferences generally exhibits positive, but nevertheless only small, effects on trade.

Table 2: RPM, Matrix by Region (changes 2007-2012 in smaller font)

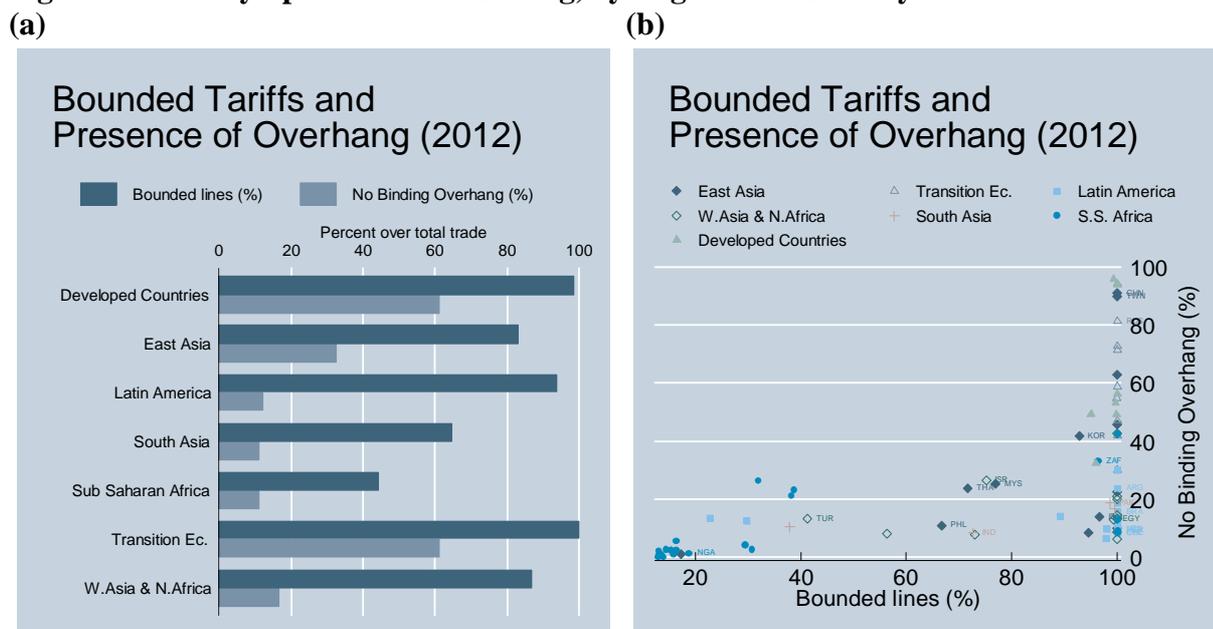
Importing Region	Exporting Region						
	Developed Countries	East Asia	Latin America	South Asia	Sub-Saharan Africa	Transition Economies	W.Asia & N.Africa
Developed Countries	0.2	-0.7	0.6	-1.0	0.2	-0.3	0.3
East Asia	-0.5	0.5	0.2	-0.1	0.1	0.2	-0.1
Latin America	0.0	-2.1	5.3	-2.0	-0.4	-0.4	-1.0
South Asia	-0.3	-0.1	0.0	2.5	-0.1	-0.1	-0.1
Sub-Saharan Africa	0.3	-1.3	-0.6	-0.7	1.6	-0.4	-0.1
Transition Economies	-0.3	-0.6	-0.4	-0.6	-0.1	2.1	-0.6
W.Asia & N.Africa	0.2	-2.2	-0.6	-1.2	0.3	-1.0	3.4
	0.2	0.3	0.5	0.6	0.6	2.8	-1.7

Table 2 reports the matrix of RPM for 2012 calculated at the regional level and its change since 2007. Because trade agreements are often among neighbouring countries, the system of preferences favours increased intra-regional trade by providing regional exporters with substantial preferential margins. RPM is larger for Latin American countries which enjoy a more than 5 percentage point advantage versus foreign competitors when trading within their region. On the other hand, the system of preferences provides only half of a percentage point advantage to East Asian countries trading in their own region. With very few exceptions, inter-regional trade faces a negative RPM, suggesting that the tariff structure negatively impacts non-regional exporters' competitiveness. Most disfavoured are exporters of South Asia and East Asia seeking to trade with Latin America and West Asia and North Africa. For Sub-Saharan exporters, the effects of the system of preferences for inter-regional trade, although offering them a competitive edge in many regions, are nevertheless limited.

3. Tariff Policy Space

Differences in WTO obligations on MFN tariffs result in a different degree of policy space across countries. Developed countries and economies in transition tend to have very limited policy space as most tariff lines are bound by WTO obligations with little binding overhang. Policy space is generally larger for developing countries. In the case of Sub-Saharan Africa, WTO obligations bound only about half of tariff lines, with substantial binding overhang typically present.

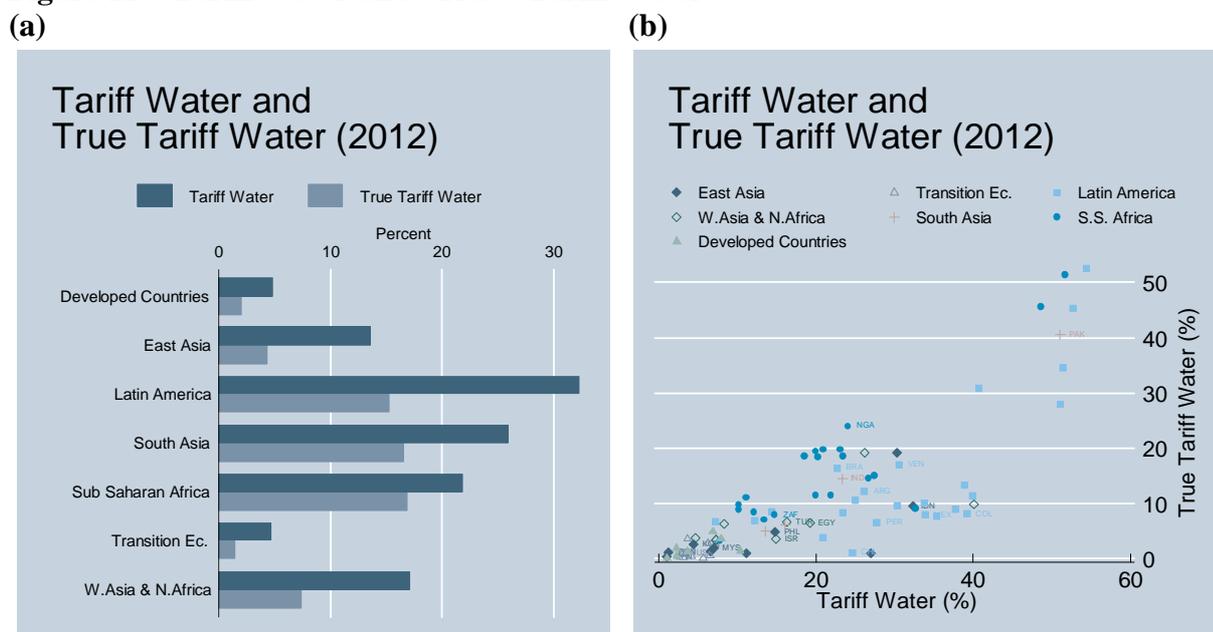
Figure 10 – Policy Space in Tariff Setting, by Region and Country



The WTO accession process limits acceding country policy space by imposing bounds on MFN tariffs. As WTO accession is a negotiating process, it results in substantial differences across countries both in terms of the number of tariff lines bound as well as the level of the bindings. These differences in obligations render trade policy of some countries more constrained than others. Figure 10a reports regional averages of the share of tariff lines that are bound (at the HS 6 digit level) and of the share of bound lines with no binding overhang (i.e. whereby applied MFN is equal to the MFN bound tariff). A higher percentage of bound lines and of lines with no binding overhang (tariff water) hinders a country's ability to raise tariffs without infringing WTO obligations, thereby limiting policy space. Figure 10b reports similar statistics at the country level. On average, policy space is limited for developed countries and economies in transition as most tariff lines are bound by WTO obligations with almost no binding overhang. Policy space is relatively larger for developing countries. For example, WTO obligations allow for substantial policy space in Latin American countries as, although most lines are bound, tariff overhang is present in the large majority of lines (90 per cent). Substantial policy space is also available for most Sub-Saharan countries both because WTO obligations bound only a fraction of tariff lines and because most of the bound lines still have some binding overhang. The most tariff policy constrained region is East Asia, where more than 80 per cent of lines are bound and a third of bounded lines have no binding overhang.

Countries' ability to raise tariffs within their legal constraints does not depend only on WTO obligations but also on preferential and regional trade agreements' (PTAs) commitments. Once PTAs are considered, the amount of tariff water in many cases is less than half of the WTO binding overhang.

Figure 11 – Tariff Water and “True” Tariff Water



Legal obligations under the WTO agreements are not the only commitments that have an effect on policy space. Participation in preferential and regional trade agreements (PTAs) also restricts countries' ability to raise tariffs without breaking legal commitments or provoking retaliatory action by trading partners. In practice, the tariff water or binding overhang – namely, the difference between bound and applied MFN tariffs – may not be the most appropriate metric of trade policy space when a substantial part of trade occurs under PTAs. In practice, countries with a larger share of trade under PTAs tend to enjoy lower true policy space. As an example, the use of WTO policy space (i.e. an increase in the applied MFN tariffs) in Mexico would have little implications for its own trade as most of Mexico's trade occurs under the North American Free Trade Agreement (NAFTA). Figures 11a and 11b report the average tariff water calculated as the difference between bound and MFN tariffs, as well as the “true” tariff water which also takes into account the implicit bindings imposed by PTA commitments. The amount of “true” tariff water in many cases is less than half of the binding overhang. For example, Latin American countries' applied tariffs could be raised by an average of more than 30 per cent without breaching WTO obligations. However, when PTA commitments are taken into account, this limits the potential tariff increase by about half (15 per cent).

4. Preferential Trade Agreements

The international trading system is regulated by an increasing number of PTAs, many of which address rules beyond traditional preferential access. As of 2012, about 60 per cent of developed countries' trade is covered by PTAs, and most of which by deeper agreements. With regard to developing countries, the largest part of trade of Latin American countries and Transition Economies occurs under PTAs. On the other hand, PTAs cover only about 30 per cent of trade of Sub-Saharan African and South Asian countries.

Figure 12 – Preferential Trade, by Type of Agreement and by Region.

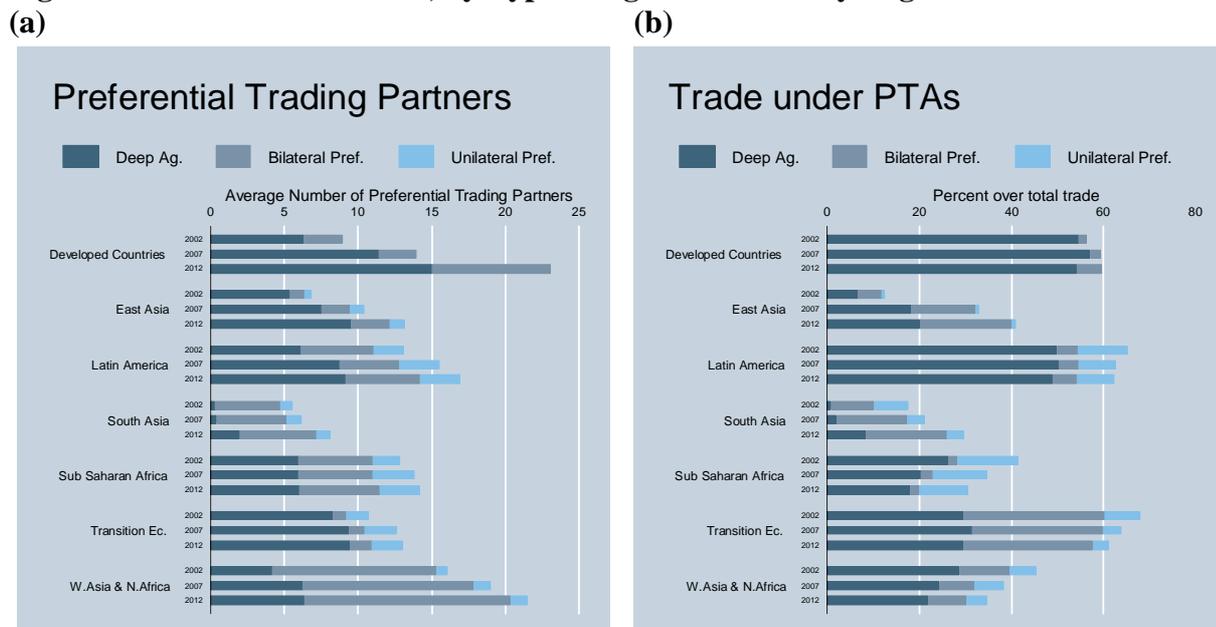
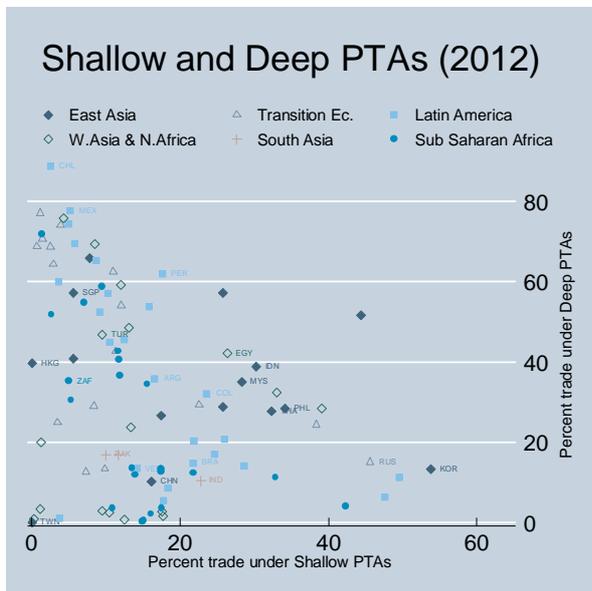


Figure 12a depicts regional averages of the number of bilateral preferential trade agreement (PTAs). In 2012, each developed country had preferential access to an average of 23 countries, a sharp increase from just 8 in 2002. Although also increasing, this indicator is much lower for developing countries. An exception is North Africa and West Asia region where many countries are members of the Greater Arab Free Trade Area (GAFTA). On the other hand, countries in South Asia on average have the fewest trading partners under PTAs. The numerical proliferation of PTAs is only part of the process of greater integration of the world economy. In addition to their growing number, many PTAs also take the form of deeper integration (i.e. those with trade rules going beyond traditional tariffs and existing WTO rule-making agreements to cover deeper behind-the-border measures). In 2012, with the exception of agreements in South Asia, Sub-Saharan Africa, West Asia and North Africa, the majority of PTAs took the form of deeper agreements. Figure 12b reports the percentage of trade under PTAs. About 60 per cent of trade of developed countries, as well as of Latin American countries and Transition Economies is under some form of PTA. The share of trade under PTAs is increasing rapidly in East Asia and South Asia, although decreasing in many other regions. This is largely the result of a general shifting of global trade flows towards emerging East Asian economies. With the exception of South Asia, most of remaining regions' trade is under deep PTAs, although unilateral preferences are an important component of Sub-Saharan African trade.

A substantial share of many developing countries' trade occurs under deeper PTAs. This is particularly evident in Latin American and East Asian economies, which are highly and increasingly integrated with regional partners. The last decade has witnessed a rise in the relevance of deeper PTAs for the majority of countries.

Figure 13 - Shallow and Deep PTAs, by Country

(a)



(b)

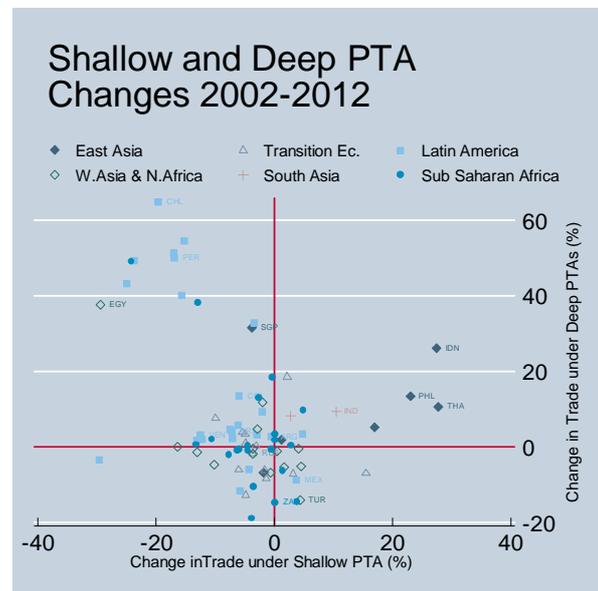


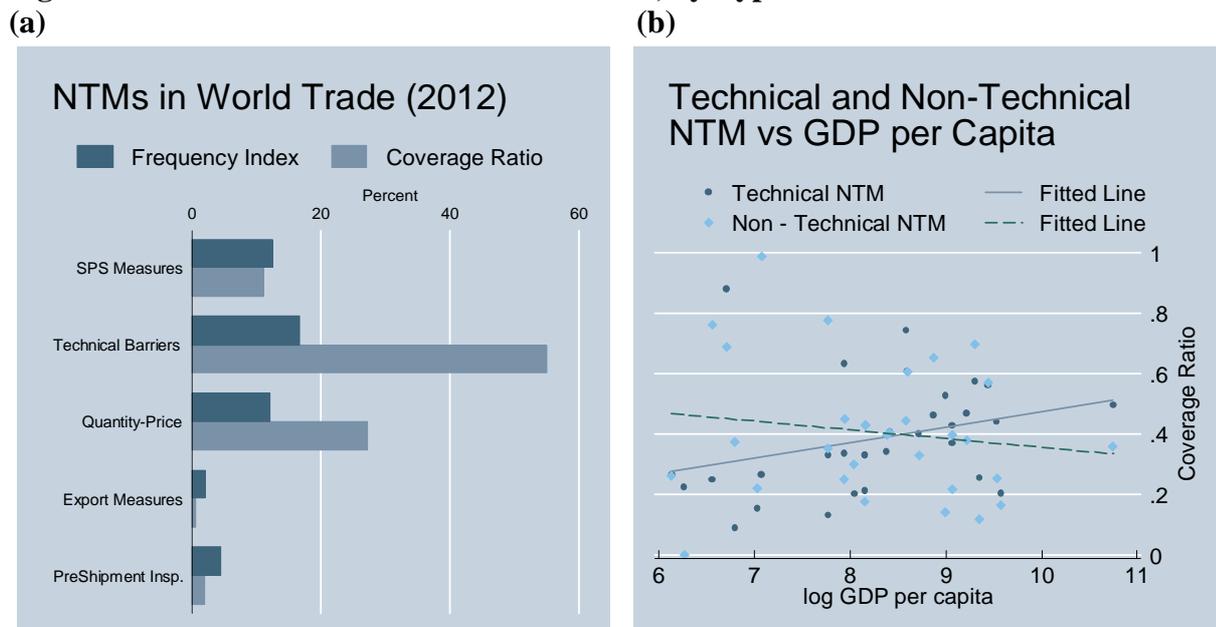
Figure 13a reports the share of trade under *shallow* PTAs (those limited to bilateral or unilateral tariff preferences) as well as under *deep* PTAs (those with trade rules going beyond traditional tariffs and, in many cases, existing WTO rule-making agreements to cover behind-the-border measures). The closer a country is to the line, the higher the percentage of its trade under PTAs (with countries in the upper left section under deep PTAs and countries in the bottom right under shallow PTAs). Many Latin American and East Asian countries tend to be close to the upper left tract of the line, indicating their reliance on deep PTAs. However, major economies in these regions (e.g. China and Brazil) still trade to a large extent outside any form of PTA.

Figure 13b reports the overall change between 2002 and 2012 in the share of trade under deep and shallow PTAs. The majority of countries have seen an increase in their share of trade under deep PTAs, often accompanied by a decline of that under shallow PTAs. This has been the case in a large number of smaller Latin American countries, characterised by an increasingly regional orientation of trade. A more limited number of countries – notably, Indonesia, Philippines and Thailand – have seen an increased reliance on both types of PTAs. In a substantial number of Sub-Saharan African countries the share of trade under PTAs is both limited and declining. This is largely a reflection of the increasing importance of non-preferential East Asian markets.

5. Non-Tariff Measures

Non-tariff measures (NTMs) include a very diverse array of policy measures serving different purposes. Among the various types of NTMs, technical barriers are the most pervasive, as about two-third of international trade is regulated by means of some form of technical barrier. Other types of measures relating to price and quantity controls are applicable to around 20 per cent of world trade. The use of technical NTMs increases with the level of GDP per capita, while that of non-technical measures decreases.

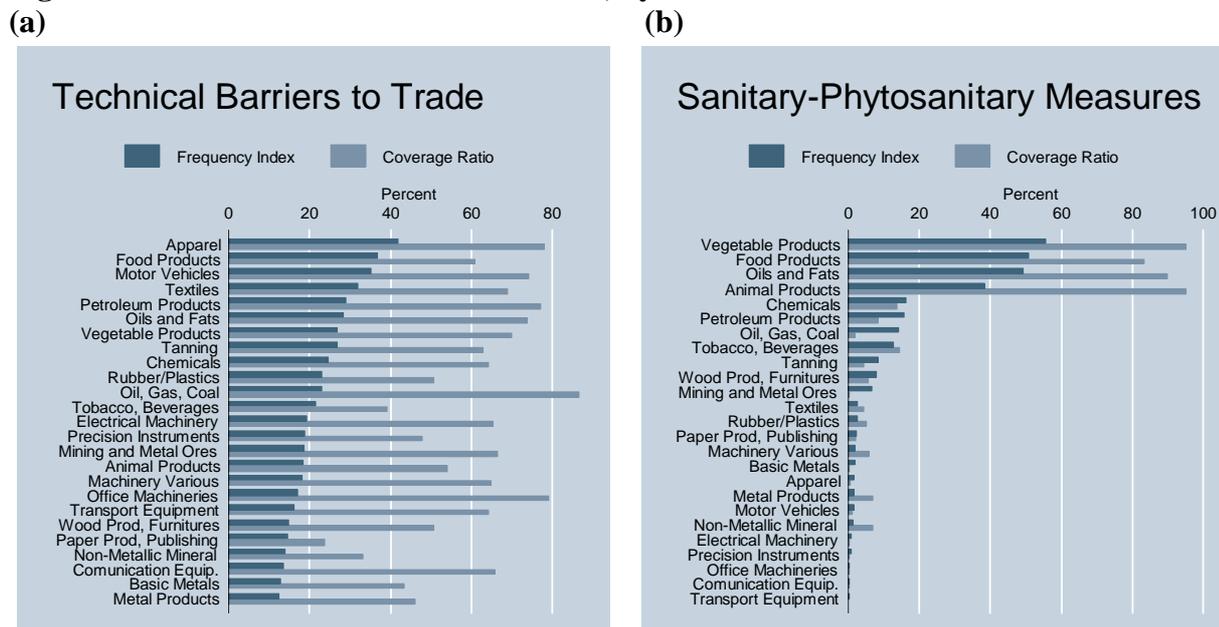
Figure 14 – Prevalence of Non-Tariff Measures, by Type



Data on non-tariff measures is still fragmentary and therefore does not allow computation of most comparative statistics. The data may also not be fully representative of world trade. Still some preliminary statistics can be computed from the available data. Figure 14a illustrates the distribution of non-tariff measures (NTMs) across five broad categories. For each category both the frequency index (i.e. the percentage of HS 6 digit lines covered) and coverage ratio (i.e. the percentage of trade affected) are reported. International trade is highly regulated through the imposition of technical barriers, with about 20 per cent of product lines and 60 per cent of world trade affected. Quantity and price control measures (which also include non-automatic licensing) still affect about 20 per cent of product lines and a similar percentage of world trade. Other measures affect international trade more marginally as their use is specific to serve particular sectors or they are employed by a specific group of countries (e.g. pre-shipment inspections (PSI) in low income countries). Figure 14b correlates the coverage ratio of technical NTMs (sanitary and phytosanitary measures (SPS) and technical barriers to trade (TBT)) and other measures with GDP per capita. In general, the importance of technical NTMs in regulating imports increases with GDP per capita. On the other hand, the importance of non-technical measures (quantity, price and export measures) tends to be greater in low income countries, and decreases with higher development levels.

The prevalence of technical NTMs differs across economic sectors. Technical barriers to trade are highly prevalent in the motor vehicle, apparel and processed food sectors.

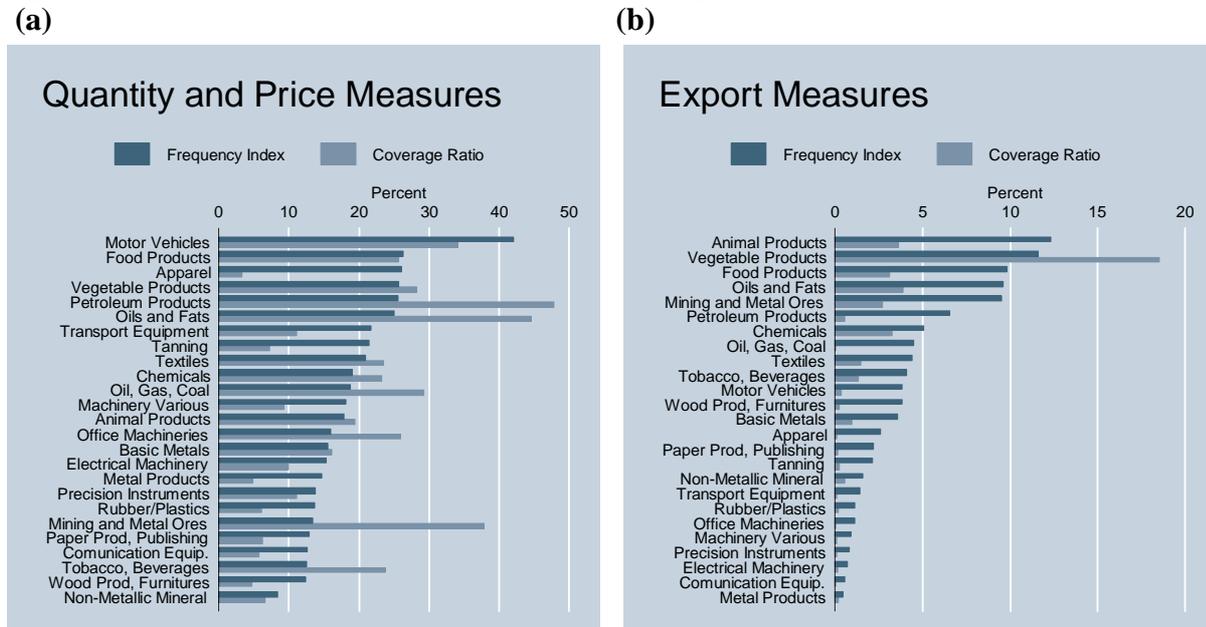
Figure 15 – Technical Non-Tariff Measures, by Economic Sector



Technical measures do not necessarily have restrictive effects on trade; however, they do affect trade costs and may have an implicit distortionary effect. Technical measures are broadly distinguished into two groups: technical barriers to trade (TBT) and sanitary and phytosanitary measures (SPS). TBT are measures referring to technical regulations and procedures for assessment of conformity with technical standards. TBT include both the requirements (e.g. prohibitions, restrictions, importer registrations requirements, labelling, tolerance limits and performance requirements) as well as conformity assessments (e.g. testing and certification). SPS are measures applied to protect human/animal health and to limit any kind of disease born damage from the importation of goods. As in the case of TBT, SPS include both the requirements (similar to these of TBT, but also relating to hygienic requirements and proper production processes) as well as conformity assessments (e.g. testing, certification, traceability and quarantine). Figure 15a reports the frequency index and coverage ratio of TBT across the various economic sectors. TBT are widely used to regulate international trade in most economic sectors. In the case of energy products and motor vehicles, the presence of TBT is largely linked to performance and safety requirements. For other sectors these measures often take the form of conformity assessments or registration requirements. This is the case for most TBT applied to textiles and apparel, as well as many agricultural products. SPS are largely associated with agriculture and products that may have inherent health hazards due to contaminants (Figure 15b). SPS of some form regulate almost all international trade in agricultural products.

Among non-technical NTMs, quantity and price controls affect a significant part of international trade in agricultural goods. These measures also tend to be applied in the energy, motor vehicles and some light manufacturing sectors, especially in the case of developing country imports. The use of export-related measures is largely limited to the agricultural sector.

Figure 16 – Non-Technical Non-Tariff Measures, by Economic Sector



Non-technical NTMs encompass a wide array of policy measures serving different purposes. Figure 16a illustrates the frequency index and coverage ratio of the most traditional forms of non-technical NTMs, namely, quantity measures (e.g. quotas, tariff rate quotas, non-automatic licensing and export restraints) and price measures (e.g. reference prices, minimum import prices and custom surcharges). Forms of quantity and price measures are common in many economic sectors but especially in the case of motor vehicles/transportation equipment, textiles and apparel, and agriculture. It is estimated that more than 40 per cent of products in the motor vehicle sector are subject to some form of quantity and/or price control measure. This share is equivalent to about one-third of total trade in the sector. Quantity and price control measures are also widely applied in the agricultural sectors where they regulate about one-fourth of product lines, representing a similar percentage of such sectoral trade. Figure 16b reports the corresponding statistics for export measures (i.e. measures implemented to control the price and/or quantity of exported products). These measures are almost exclusively applied to agricultural products, in particular animal and vegetable products. In the latter category almost 20 per cent of trade is subject to export restrictions.

6. Trade Defence Measures

The use of trade defence measures is largely limited to developed and major developing countries. In 2012, more than 300 antidumping investigations were initiated by WTO members, a sharp increase from the previous years. Other trade defence measures such as countervailing duties and safeguards are more rarely used.

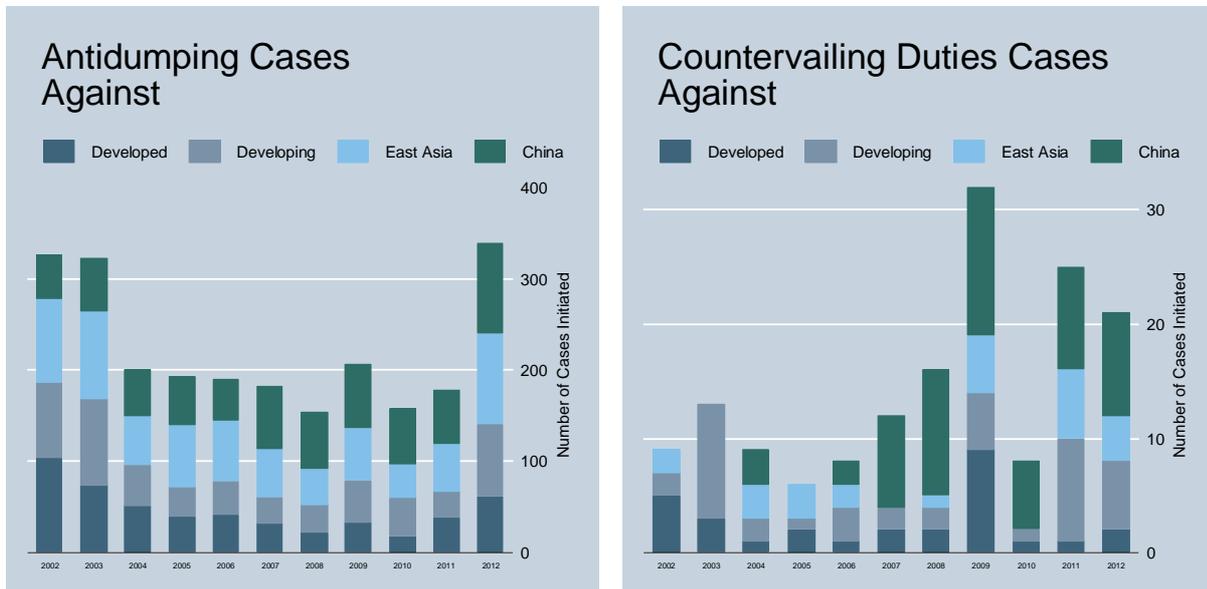
Figure 17 – Trade Defence Measures



Trade defence measures in the form of antidumping, countervailing duties and safeguards allow countries to actively respond to trade related concerns within a well-established WTO mechanism. Among the three mentioned measures, antidumping is by far the most widely utilized (Figure 17a). During most of the past decade there were between 150 and 200 antidumping cases brought annually before the WTO. However, the number of antidumping cases brought to the WTO spiked to more than 300 in 2012. Because of their specific process and purpose, countervailing duties and safeguards are more rarely utilized. The vast majority of cases relating to countervailing duties are brought by developed countries. In contrast, anti-dumping and safeguard investigations have been initiated almost exclusively at the behest of developing countries in recent years. Overall, the use of trade defence instruments has been largely limited to developed and major developing countries. During the last decade only about 40 countries made use of trade defence measures. The main users of such measures include India, United States, European Union China and, more recently, also Brazil and Argentina (Figure 17b). Lower income countries are also increasingly using such policy measures.

During most of the last decade, more than half of WTO investigations relating to antidumping and countervailing duties were targeted against East Asian firms, especially Chinese.

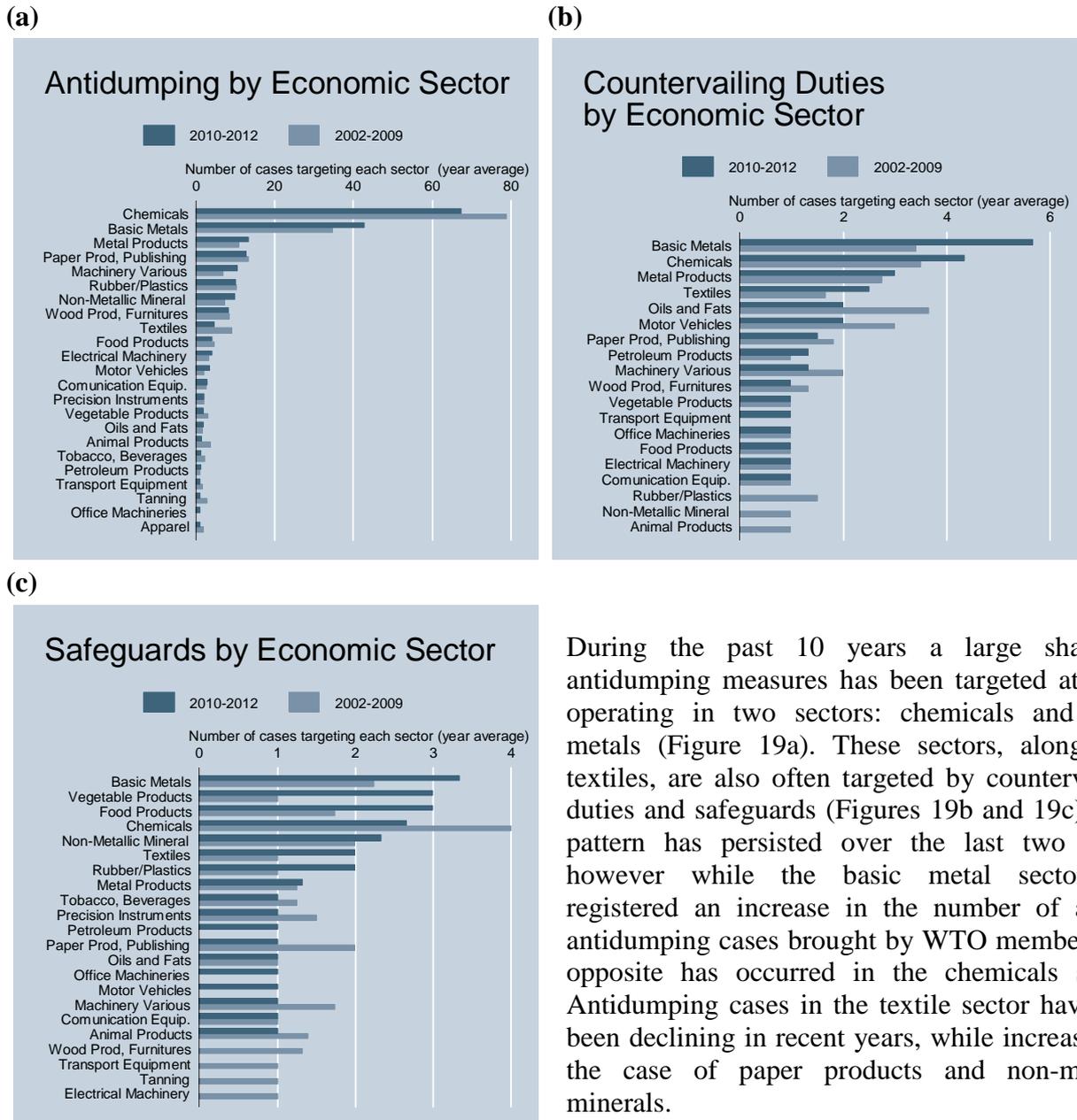
Figure 18 – Targeting of WTO Investigations on Antidumping and Countervailing Duties (a) (b)



Over the course of the last decade the majority of antidumping and countervailing duty cases brought to the WTO were aimed at protecting domestic economies from firms operating in developing countries, especially in East Asia. Figures 18a and 18b depict the number of cases brought against firms operating in developed and developing countries, in the latter case further distinguishing between cases against firms in the East Asian region, and China in particular. Out of about 330 antidumping investigations initiated in 2012, around 200 were targeted at East Asian firms, out of which about 100 were Chinese. Similar proportions are also observed in the case of investigations on countervailing duties.

Chemical and basic metal sectors are among the most targeted by the all three types of trade defence measures. The textile sector also features prominently in the use of countervailing duties and safeguards.

Figure 19 – Trade Defence Measures, by Economic Sector

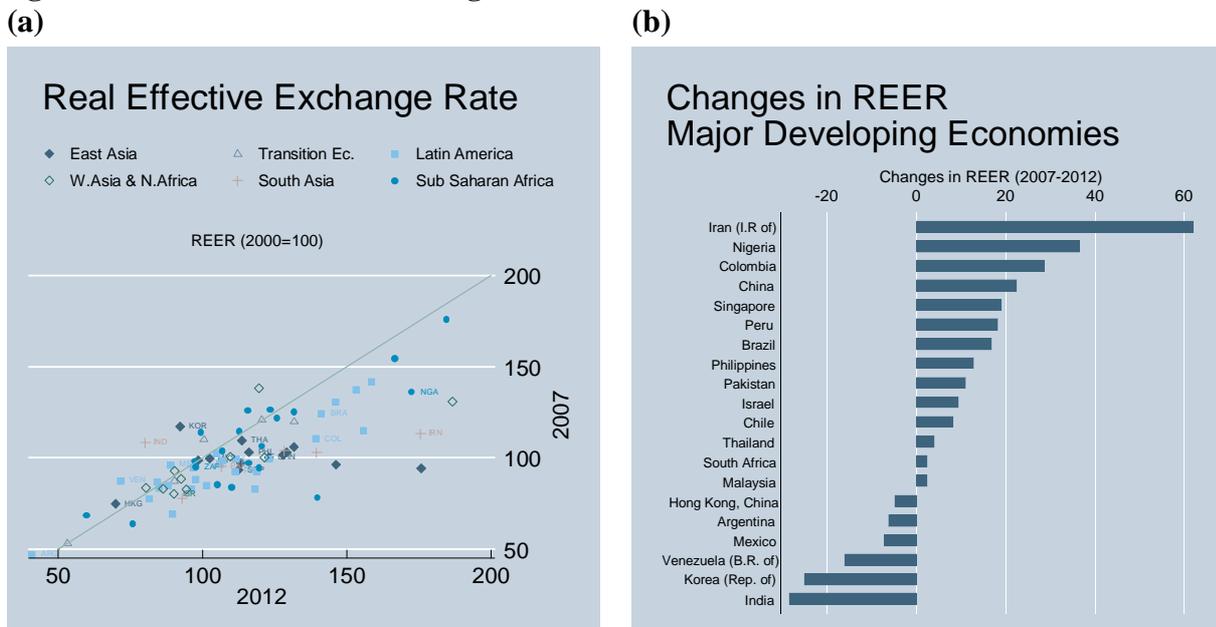


During the past 10 years a large share of antidumping measures has been targeted at firms operating in two sectors: chemicals and basic metals (Figure 19a). These sectors, along with textiles, are also often targeted by countervailing duties and safeguards (Figures 19b and 19c). This pattern has persisted over the last two years, however while the basic metal sector has registered an increase in the number of annual antidumping cases brought by WTO members, the opposite has occurred in the chemicals sector. Antidumping cases in the textile sector have also been declining in recent years, while increasing in the case of paper products and non-metallic minerals.

7. Exchange Rates

As measured by the real effective exchange rate (REER), most developing countries experienced a persistent loss of external competitiveness between 2007 and 2012. Among major developing countries, REER has substantially appreciated in the case of the Islamic Republic of Iran, Nigeria, Colombia and China.

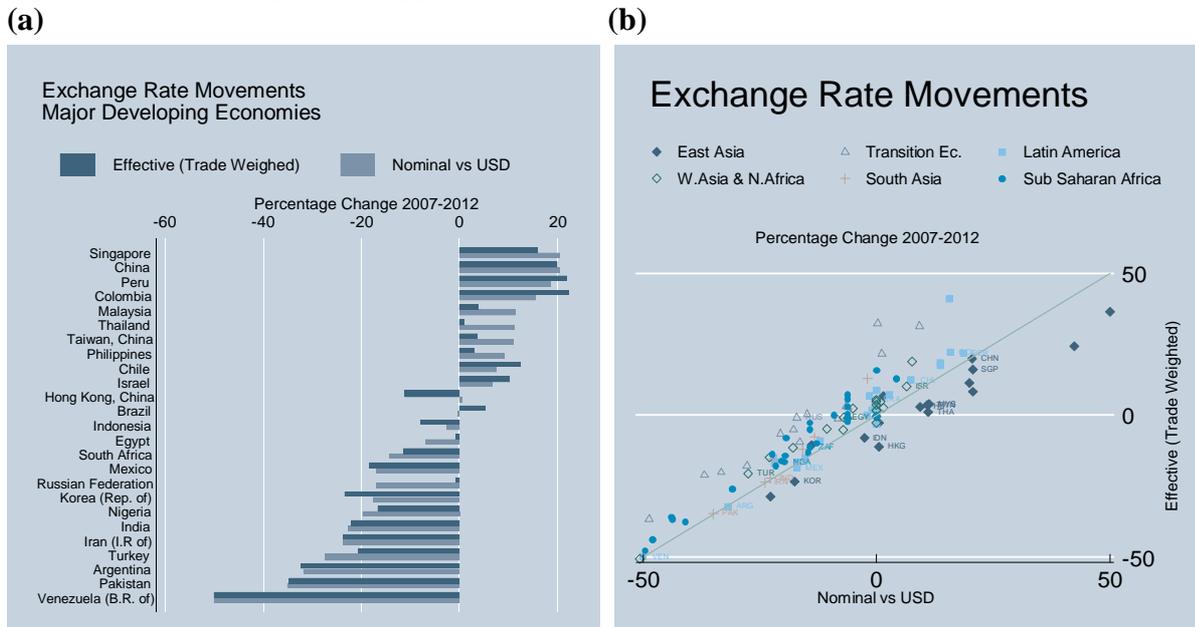
Figure 20 – Real Effective Exchange Rate



The real effective exchange rate (REER) is an indicator which grasps a country's international competitiveness in terms of its foreign exchange rates. The index for each currency is calculated against a whole basket of currencies, each weighted according to the issuing countries' respective importance as a trade partner. The index is of limited usefulness for country comparisons as it is an index of misalignment calculated with respect to a base year (2000). However, the REER is useful to identify gains (decreasing REER) or losses (increasing REER) in international competitiveness across time. As illustrated in Figure 20a, a large number of developing countries exhibited a loss in competitiveness between 2007 and 2012 (and in many cases also in relation to the base year 2000). With regard to major developing countries, the progressive loss of competitiveness due to exchange rate misalignment is particularly notable in the case of China, Colombia, Nigeria and the Islamic Republic of Iran (Figure 20b). A number of economies also saw their currencies depreciate in real effective terms between 2007 and 2012 leading to undervaluation, although the extent of misalignment was less pronounced and limited to the cases of Argentina, Hong Kong (China), India, the Republic of Korea, Mexico and the Bolivarian Republic of Venezuela.

Nominal exchange rates in several developing countries such as China, Colombia, Peru and Singapore appreciated between 2007 and 2012. Yet, other countries including Argentina, Pakistan and the Bolivarian Republic of Venezuela saw their currencies depreciate by over 30 per cent. Although currencies of East Asian countries have appreciated versus the US dollar, their appreciation with respect to currencies of trading partners has been more muted.

Figure 21 – Exchange Rate Appreciations and Depreciations

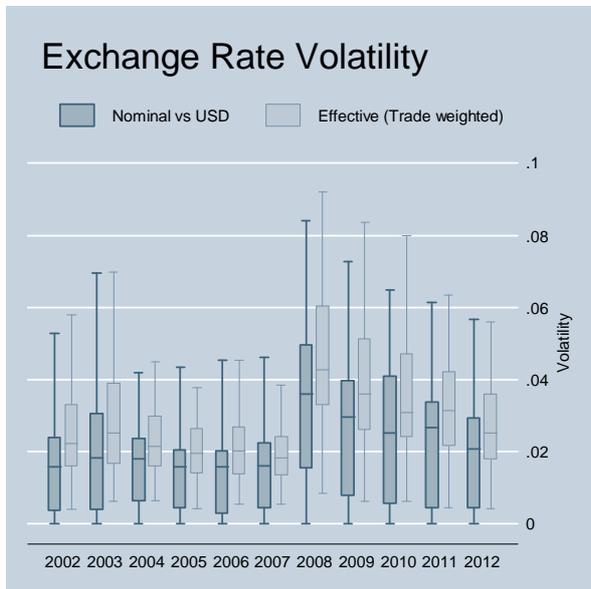


In examining movements of exchange rates over time, Figures 21a and 21b portray the change in nominal exchange rates of developing countries between 2007 and 2012, as measured both against the US dollar as well as against a basket of currencies weighted according to levels of trade with the issuing countries. Whilst the former measure is informative given the dominance of the US dollar in international transactions and currency reserves, the latter measure is arguably of greater consequence as it captures movements of a country’s currency against those of its main trading partners. As shown in Figure 21a, several major developing countries’ currencies appreciated against the US dollar over the period 2007-2012, with the Chinese yuan and the Singapore dollar rising by around 20 per cent. Appreciation has also been an issue for some Latin American currencies (notably Brazil). However, this trend has been reversed in the most recent period, at least in relation to the US dollar. Of note is that in a number of East Asian economies including Malaysia, the Philippines, Taiwan (Province of China) and Thailand, a notable appreciation of the exchange rate against the US dollar was much less pronounced when measured against the trade weighted basket of currencies. This trend is also discernible from Figure 21b, with countries in East Asia, largely lying below the 45 degree line, experiencing a greater appreciation against the US dollar than against a basket of currencies between 2007 and 2012. The converse is true for the most part in other developing country regions. From 2007 to 2012 numerous major developing countries also recorded significant nominal depreciations. In the case of Argentina, Pakistan and the Bolivarian Republic of Venezuela, exchange rates depreciated by over 30 per cent.

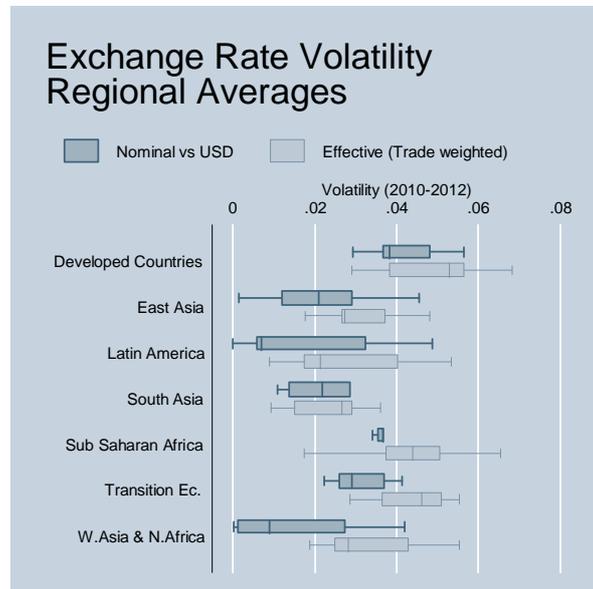
Exchange rate markets have been quite volatile in the aftermath of the global financial crisis. Volatile exchange rates appear to be more problematic for Sub-Saharan African exporters both because of higher levels of volatility as well as more limited availability of financial instruments to hedge against the risks of fluctuations.

Figure 22 – Exchange Rate Volatility

(a)



(b)



A volatile exchange rate (i.e. sudden oscillations in the level of a currency) makes foreign transactions more risky and therefore negatively affects international trade. Volatile exchange rates are more problematic for developing countries where financial instruments to hedge against the risks of exchange rate fluctuations are less available. Figure 22a illustrates the distribution of volatility (measured using monthly data) of currencies for circa 130 countries for each of the past 10 years (each box is delimited by the 25 and 75 percentiles, the bar represents the median and the whiskers are the maximum and minimum values, excluding outliers). Turbulence in the currency markets increased substantially during the financial crisis of 2008. In the aftermath of the crisis, currency markets have gradually calmed. Still, in 2012 exchange rates were generally more volatile than in the pre-crisis period.

Figure 22b reports the regional average level of exchange rate volatility for the period 2008-2012. Largely owing to instability of the Euro, developed countries have experienced the highest degree of exchange rate volatility. With the exception of Sub-Saharan Africa, currencies of developing countries have tended to be less volatile. Volatility has also generally been more pronounced when calculated using effective exchange rates (trade weighed) than nominal exchange rates vis-à-vis the US dollar. One reason for this is that many currencies are relatively more tied to the US dollar as it remains the world reference currency. This is particularly evident for countries in West Asia and North Africa where energy exports are largely denominated in US dollars.