### Key Statistics and Trends in Trade Policy 2015

#### Preferential Trade Agreements

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KEY STATISTICS AND TRENDS in Trade Policy 2015

PREFERENTIAL TRADE AGREEMENTS
**NOTE**

*Key Statistics and Trends in Trade Policy 2015* is a third annual edition of the study initiated in 2013. It is a product of the Trade Analysis Branch (TAB), Division on International Trade in Goods and Services, and Commodities (DITC), UNCTAD Secretariat. This study is part of a larger effort by UNCTAD to analyze trade-related issues of particular importance to developing countries, as requested by the Doha Mandate of UNCTAD XIII. This study was prepared by Alessandro Nicita.

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**Alessandro Nicita**  
Trade Analysis Branch  
Division on International Trade in Goods and Services, and Commodities  
United Nations Conference on Trade and Development  
Palais des Nations, CH-1211 Geneva 10, Switzerland  
Tel: +41 22 917 5685; Fax: +41 22 917 0044  
E-mail: alessandro.nicita@unctad.org
## CONTENTS

Overview .............................................................................................................................................................. v
Glossary .............................................................................................................................................................. vi
Data Sources .................................................................................................................................................... viii

### In Focus: Preferential Trade Agreements. ........................................................................................................ 1

- Some Motives for the Proliferation of PTAs .................................................................................................. 1
- PTAs and International Trade ....................................................................................................................... 2
- PTAs and Market Access Conditions ........................................................................................................... 3
- Mega-Regionals Agreements ......................................................................................................................... 3

### 1. Tariffs. .......................................................................................................................................................... 5

- Average Import and Export Restrictiveness, by Region ............................................................................. 5
- Multilateral and Preferential Tariff Liberalization ......................................................................................... 6
- Free Trade and Remaining Tariffs, by Broad Category .............................................................................. 7
- Trade Weighted Average Tariffs, by Region, Broad Category and Sector .................................................... 8
- Tariff Peaks, by Region, Broad Category and Sector ................................................................................... 9
- Tariff Escalation by Region, Broad Category and Sector .......................................................................... 10
- Tariff Restrictiveness, Matrix by Region ...................................................................................................... 11
- Relative Preferential Margins, Matrix by Region ......................................................................................... 12
- Import Restrictiveness ................................................................................................................................. 13

### 2. Trade Agreements. .................................................................................................................................... 14

- Trade Agreements ....................................................................................................................................... 14
- Importance of Preferential Trade Agreements ............................................................................................ 15
- Policy Space: Multilateral Constraints .......................................................................................................... 16

### 3. Non-Tariff Measures. ............................................................................................................................... 17

- Prevalence of Non-Tariff Measures, by Type and Broad Category ............................................................... 17
- Non-Tariff Measures, by Sector .................................................................................................................... 18

### 4. Trade Defence Measures. ....................................................................................................................... 19

- Trade Defence Measures ............................................................................................................................. 19
- Trade Defence Measures in Effect, by Country ............................................................................................. 20
- Trade Defence Measures and Investigations, by Sector .............................................................................. 21

### 5. Exchange Rates. ....................................................................................................................................... 22

- International Competitiveness, Real Effective Exchange Rate ................................................................ 22
- Change in the Exchange Rate vs US dollar ................................................................................................... 23
OVERVIEW

During the last decade international trade policy has been characterized by a progressive shift in the use of trade policy instruments. While tariff protection remains an important instrument only in certain sectors and/or for a limited number of countries, the use of other policy measures has become more widespread. The years after the latest global economic and financial crisis have also been characterized by movements in the exchange rates and episodes of competitive devaluation, which have had important repercussions on international trade flows.

As of 2014, around one-third of world trade was free under most-favoured-nation (MFN) regimes, with an additional third exempt from tariffs due to preferential access. Still, tariffs remain relatively high and tariff peaks continue to affect important sectors, including some of key interest to low income countries such as agriculture, apparel, textiles and leather products. Tariffs also remain quite restrictive for most South-South trade. International trade is increasingly regulated and influenced by a wide array of policies and instruments reaching beyond tariffs. Technical measures and requirements regulate about two-thirds of world trade, while various forms of sanitary and phytosanitary measures (SPS) are applied to almost the totality of agricultural trade. The past few years have also seen a general increase in the use of trade defence measures within the WTO framework. In spite of the economic crisis, the process of economic integration has remained strong at a regional and bilateral level, with an increasing number of preferential trade agreements (PTAs) being negotiated and implemented. PTAs increasingly address not only goods but also services and often deal with rules beyond reciprocal tariff concessions to cover a wide range of behind the border issues. One effect of the proliferation of PTAs is that they distort international competitiveness by providing different trading partners with different market access conditions. This has repercussions for many lower income countries as their preferential margins erode and their competitiveness in international markets declines. The economic turbulence of recent years has been reflected in exchange rate markets, both for developing and developed countries’ currencies. Exchange rate movements are playing an important role in shaping international trade in the post crisis period, as they have influenced countries’ external competitiveness.

This report is structured in two parts. The first part presents an overview of the extent, causes and implications of the proliferation of preferential trade agreements. The second part provides illustrative statistics on trade policy instruments. The second part is divided in five chapters: tariffs, trade agreements, non-tariff measures, trade defence measures, and exchange rates. Trade statistics are provided at various levels of aggregation illustrating the use of the trade policy measures across economic sectors and geographic regions.
GLOSSARY

**Anti-dumping**: A trade policy instrument within the WTO framework to rectify the situation arising out of the dumping of goods and its trade distortive effect

**Applied Tariff**: The actual tariff rate in effect at a country’s border

**ASEAN**: Association of Southeast Asian Nations

**Binding Overhang**: The extent to which a country’s WTO bound tariff rate exceeds its applied rate

**Bound Tariff Line**: See tariff binding

**CIS**: Free Trade Agreement of the Commonwealth of Independent States

**COMESA**: Common Market for Eastern and Southern Africa

**Countervailing Duty**: A tariff designed to counteract the effect of export subsidies

**Coverage Ratio**: The percentage of trade affected by a measure or set of measures

**Currency Appreciation**: An increase in the value of a country’s currency on the exchange market

**Currency Depreciation**: A fall in the value of a country’s currency on the exchange market

**Currency Misalignment**: An index measuring the divergence of the exchange rate from its long term equilibrium

**Deep Trade Agreements**: Agreements that include provisions that go beyond reciprocal reductions of tariffs

**Duty-Free**: Not subject to import tariffs

**ECOWAS**: Economic Community of West African States

**Effective Exchange Rate**: An index of a currency’s value relative to a group of other currencies

**EU**: European Union

**Exchange Rate Volatility**: The tendency for currencies to appreciate or depreciate in value within a period

**Export Restrictiveness**: The average level of tariff restrictions imposed on a country’s exports as measured by the MA-TTRI

**Frequency Index**: The percentage of tariff lines covered by a measure or set of measures

**GDP**: Gross domestic product

**Harmonized System**: An international system for classifying goods in international trade

**HS**: See harmonized system

**Import Restrictiveness**: The average level of tariff restrictions on imports as measured by the TTRI

**LDCs**: Least developed countries

**MA-TTRI**: An index measuring the average level of tariff restrictions imposed on exports

**MERCOSUR**: Mercado Común del Sur

**MFN Tariff**: The tariff level that a member of the GATT/WTO charges on a good to other members

**NAFTA**: North American Free Trade Agreement

**Nominal Exchange Rate**: The actual rate at which currencies are exchanged on the exchange market

**Non-Tariff Measure**: Any policy that alters the conditions of international trade, but tariffs

**NTM**: See non-tariff measure
**Key Statistics and Trends in Trade Policy 2015**

**Preferential Schemes**: An arrangement under which countries levy lower (or zero) tariffs against imports from members than outsiders

**PTA**: Preferential trade agreement. This includes both what the WTO refers to as regional trade agreements and also free trade areas, custom unions and common markets.

**Real Effective Exchange Rate**: The effective exchange rate adjusted for the rate of inflation

**REER**: See real effective exchange rate

**Relative Preferential Margin**: A measure of the preferential margin for a given country relative to foreign competitors

**RPM**: See relative preferential margin

**Safeguard**: A WTO compliant import protection policy that permits restricting imports if they cause injury to domestic industry

**Shallow Trade Agreement**: Preferential Agreements including only a reduction of tariffs

**SPS**: Sanitary and phytosanitary measures

**Tariff Binding**: A commitment, under the GATT, by a country not to raise the tariff on an item above the specified bound

**Tariff Escalation**: Higher tariffs on processed goods than raw materials from which they are produced

**Tariff Line**: A single item in a country’s tariff schedule

**Tariff Peak**: A single tariff or a small group of tariffs that are particularly high

**Tariff Trade Restrictiveness Index**: An index measuring the average level of tariff restrictions imposed on imports

**Tariff Water**: See: binding overhang

**TBT**: Technical barriers to trade

**Technical NTM**: Non-tariff measure related to SPS and TBT

**TPP**: Trans-Pacific Partnership

**Trade Defence Measure**: Policies within the WTO framework preventing or correcting injury to domestic industry due to imports

**True Tariff Water**: Tariff water that takes into account implicit bindings imposed by PTA obligations

**TTIP**: Transatlantic Trade and Investment Partnership

**TTRI**: See tariff trade restrictiveness index

**Unbounded Tariff Line**: See tariff binding

**Weighted Average Tariff**: Average tariffs, weighted by value of imports

**WTO**: World Trade Organization
DATA SOURCES

All statistics in this publication have been produced by the UNCTAD Secretariat by using data from various sources. Data on tariffs and non-tariff measures originates from the UNCTAD TRAINS database (www.unctad.org/trains), while data on bound tariffs derives from the WTO’s Consolidated Tariff Schedules database (tdf.wto.org). Trade data is from UN COMTRADE (comtrade.un.org). Data on trade defence measures is sourced from the World Bank Temporary Trade Barriers database (go.worldbank.org/W5AGKE6DH0) and WTO I-TIP (i-tip.wto.org). Tariff and trade data is at the Harmonized System 6-digit level and has been standardized to ensure comparability across countries. Data related to preferential trade agreements is derived from various databases including the WTO regional trade agreement gateway (rtais.wto.org), the World Bank global preferential agreements database (wits.worldbank.org/gptad/trade_database.html) and the NSF-Kellogg Institute Database on Economic Integration Agreements (kellogg.nd.edu). Yearly exchange rate data and other macro level data used in the figures originates from UNCTADSTAT (unctadstat.unctad.org). Unless otherwise specified, aggregated data covers more than 160 countries representing over 95 per cent of world trade. Data on non-tariff measures only covers around 40 countries, and therefore may not be representative of world trade.

Countries are categorized by geographic region as defined by the UN classification (UNSD M49). Developed countries comprise those commonly categorized as such in UN statistics. For the purpose of this report, transition economies, when not treated as a single group, are included in the broad aggregate of developing countries. Product sectors are categorized according to the Broad Economic Categories (BEC) and the International Standard Industrial Classification (ISIC). Preferential trade agreements that relate to both goods and services are counted as one. Non-tariff measures are classified according to UNCTAD classification 2012 (www.unctad.info/en/Trade-Analysis-Branch/Key-Areas/NTM)

Further information relating to the construction of data. statistics, tables and graphs contained in this publication can be made available by contacting tab@unctad.org.
IN FOCUS: PREFERENTIAL TRADE AGREEMENTS

One of the tenets of international trade theory is that while a country can benefit by unilaterally imposing tariffs, when tariffs are also imposed by its trading partners, then both the parties are worse off. This principle provides the rationale for trade agreements. Reciprocal liberalization internalizes the costs associated with the terms-of-trade motivation (the use of tariffs to drive down the international price of the imports) and the political economy argument (political losses from tariff cutting are balanced by political gains resulting from exporters benefiting from market access). Reciprocal liberalization can be pursued under a multilateral approach, as in the case of the WTO, or among a limited number of members, as in the case of preferential trade agreements (PTAs).\(^1\) From an economic standpoint, multilateral trade liberalization is more efficient than preferential liberalization as it does not result in trade distortion because it is ultimately not discriminatory. In this regard PTAs are inconsistent with the WTO principle of non-discrimination. However, selective reciprocal liberalization is still allowed under WTO rules because of the free-rider problem that arises within the WTO if trade liberalization is reciprocated only by a subset of WTO members. PTAs therefore enable the interested countries to pursue trade integration through market access concessions while avoiding the free-rider problem.

Some Motives for the Proliferation of PTAs

The need for deeper integration combined with the stalling of multilateral liberalization has surely contributed to the surge in the number of PTAs observed since the end of the Uruguay Round in the mid-1990s. At the start of the Uruguay Round there were fewer than 40 PTAs in force. Currently there are more than 250 PTAs in force and more being negotiated. While virtually all countries belong to at least one PTA, some countries have been substantially more active than others in forming PTAs (Chart 1). European countries, some of the Andean countries, as well as some of the Southern African countries have been most active in pursuing PTAs.

Chart 1: Importance of PTAs, as measured by the number of trading partners with PTAs

Even more relevant than the proliferation of the number of PTAs is possibly their widening policy coverage. Modern PTAs go beyond simple tariff concessions to cover services trade and a wide array of behind-the-border issues such as investment, competition policy, intellectual property rights and dispute

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\(^1\) PTAs are defined here in a wider sense than the WTO term. In this report PTAs include all forms of reciprocal trade agreements including bilateral and regional trade agreements, free trade areas, custom unions and common markets.
settlement mechanisms. The interest of parties to confront these issues is determined primarily by the modern interconnected economy. Indeed, about half of the PTAs now in force contain provisions that go beyond mutual tariff concessions and tackle other aspects related to market access and anti-competitive practices. While limiting beggar-thy-neighbor policies and reciprocal opening of markets remain important in many instances, modern PTAs are shaped with the intention of reducing trade costs relating to a production structure where goods, services, people, technology and capital are internationalized. Given the difficulty in advancing the multilateral agenda on these issues, it is not surprising that demand for greater coherence across different policy areas has appeared at the bilateral and regional level.

The success of PTAs is also driven by the fact that they are essentially self-selected clubs. There is a strong political economy motive for countries that already trade heavily with each other to form a PTA. Interested parties will lobby governments to form PTAs in order to facilitate trade in a reciprocal manner. This is the reason why PTAs work best among “natural trading partners”, and is the reason why most of the early PTAs have been among regional partners. However, as the global economy has become more interconnected, the pattern of PTA formation has transcended regional boundaries. This is demonstrated by the increase in the average geographic distance among PTA members (Chart 2). During the last decade geographic proximity gave space to a pattern of PTAs characterized by a different model where major economies concluded agreements with smaller trading partners. One reason for such a development is that this model of PTA formation is well suited to the hub-and-spoke model of global value chains. Even more recently, PTA formation seems to be shifting to a new pattern. Nowadays, PTAs are also into creating larger markets under a compatible set of trade rules. The rising interest in facilitating market integration among larger parties has manifested in the discussion of recent “mega-regional” agreements such as the Trans-Pacific Partnership (TPP) and the Transatlantic Trade and Investment Partnership (TTIP).

**PTAs and International Trade**

One important point about PTAs is that while many PTAs have facilitated trade among members, not all trade agreements have succeeded in doing so. The trade performance of PTAs can be econometrically gauged by comparing the observed level of trade among members with the level predicted by the simpler form of the gravity model (Chart 3). Intra-PTA trade varies greatly across PTAs. While the European Union, NAFTA and ASEAN levels of intra-PTA trade are above those predicted by the gravity model, this is not the case for COMESA and ECOWAS. Part of the reason why some agreements are not performing as expected is that member countries were not “natural trading partners” to start with. The poor performance of some PTAs also indicates that membership in PTAs alone is not sufficient to overcome geographic or economic barriers to trade. Complementarities of production profiles among members, the size of markets and
capacity constraints are also some of the factors for the success of PTAs. The success or failure of PTAs is also determined by the mechanisms used for their implementation and by whether the provisions are well targeted in addressing the constraints to trade (i.e., the harmonization of regulatory frameworks, rules of origin and custom reforms). Moreover, addressing behind-the-border issues and correctly implementing technical assistance programs also greatly contributes to the success of PTAs in increasing trade among members. Still, it would be erroneous to simply gauge the success of PTAs exclusively by their effect on trade. PTAs can promote a number of noneconomic benefits, such as peace and security within members, and often result in more bargaining power for the members in further trade negotiations.

PTAs and Market Access Conditions

From a trade perspective, PTAs form a basis for the competitive repositioning of international trade by decreasing the competitiveness of imports originating in non-member countries. This argument is the basis of the "domino effect" of PTAs: once a PTA is formed, trade becomes relatively more costly for non-member countries, thus providing them with incentives to join an existing agreement or to form new ones. Trade distortionary effects vary greatly across PTAs depending on the depth of the agreement and on the advantage PTAs provide versus MFN treatment.

Trade frictions addressed in PTAs take various forms from simple tariffs to more sophisticated trade measures. In the simplest of terms, the distortionary effects of PTAs can be gauged by examining the preferential margins on applied tariffs, but still keeping in mind that the overall trade distortionary effects playing against non-members are much more significant considering all the trade facilitation mechanisms embedded in deep PTAs. Chart 4 reports the relative preferential margin (the average tariff advantage that PTAs members enjoy vis-a-vis foreign competitors once all systems of preferences are taken into account) for seven PTAs. Relative preferential margins vary substantially depending on overlapping trade agreements and the average external tariffs. Preferential margins are generally much larger for agriculture as tariffs tend to be higher. For example, the tariff advantage provided to EU members in intra-EU trade is relatively low at less than one percentage point for manufacturing and almost two percentage points for agriculture. The advantage that EU membership confers to members is small because of low MFN tariffs and because of duty free access to EU markets under various preferential schemes. Tariff advantages provided to members are low also in the case of NAFTA (about one percentage point for manufacturing and four percentage points for agriculture) and ASEAN (about two percentage points for manufacturing and four percentage points for agriculture). On the other hand, the other four PTAs provide their members with much larger preferential margins, especially for agricultural products. The larger preferential margins are due to a higher external tariff and a limited participation in other PTAs. Looking beyond averages and considering that many PTAs confer other competitive advantages than just preferential tariffs, it is clearly the case that PTA formation substantially discriminates against exporters in non-member countries.

Mega-Regionals Agreements

The recent discussion and interest in forming mega-regional agreements is arguably one of the most important developments in the trade system, and represents a significant change from the existing models of trade integration. Mega-regionals depart from existing trade integration models in two main elements. Geographically, the scope of mega-regionals goes beyond single regions to embrace a large
number of economies which are far apart. In this regard, mega-regionals seek to create large markets so as to address concerns from the demand and supply sides. Most importantly, mega-regionals seek integration among members at a much greater scale than previous initiatives. Such deep integration is pursued by improving regulatory compatibility and providing a rules-based framework for cross-border transactions.

The two most significant mega-regionals currently under discussion are the Trans-Pacific Partnership (TPP) and The Transatlantic Trade and Investment Partnership (TTIP). The aim of the TTIP is to facilitate trade between the two largest economies: the USA and the EU. The TPP seeks to bring twelve Pacific Rim countries under the same set of trade rules. The TTIP and TPP are substantially more significant in many aspects than any of the existing PTAs (Chart 6). Trade among TTIP and TPP countries is already quite substantial. Considering that these agreements will cover a large part of world population and GDP, they are likely to further increase trade among members.

Mega-regionals have the potential to greatly affect the global trading system. Besides the sheer size of the economy involved, mega-regional agreements will likely result in important trade diversion effects against non-member. Mega-regionals are also likely to accentuate the abovementioned "domino effect" of PTAs. In a nutshell, by creating large markets and by greatly improving market access conditions among members (and therefore decreasing the competitiveness of imports originating in non-member countries) mega-regionals provide great incentives for non-member countries to join. Indeed, there is already interest in joining the TPP from six additional Pacific Rim countries. For non-member countries the impact of such agreements (and the incentives to join) will depend on two main factors. The first element is their degree of economic integration with countries already part of mega-regionals. Countries whose trade structure is more dependent upon members of mega-regionals will have larger incentives to join. The second element is the capacity to adapt and comply with the high level of regulatory standards that these agreements are expected to set. Countries lacking resources to efficiently comply with newer trade rules will likely lose market share in mega-regionals' markets. This will increase their incentives to join the agreement in order to benefit from any trade assistance and capacity building program embedded in it.

A final argument of importance for the international trading system is whether multilateralism can coexist and continue to be relevant when trade flows are increasingly determined by preferential access and deeper regulatory integration. This issue is becoming more relevant as PTAs enlarge in size and scope. Given the economic weight of the countries involved, the trade rules set by mega-regionals could have strong effects beyond member states and thus affect the multilateral trading system. In terms of scope, these agreements deal with matters and obligations that are outside the current mandate of the WTO but essential for the modern interconnected economy. This could make these agreements more appealing than an outdated multilateral agenda. More worrying for the multilateral trading system is that trade rules set by the mega-regionals agreements may not be compatible or be even in contrast with the rules of the WTO. In this regard, mega-regionals could initiate a process of fragmentation of the global economy into a small number of compact but loosely interconnected economic blocs.

Although surely important, the impact of such agreements both for trade and for the multilateral trading system is difficult to assess. Given their large scope, the complexity in their modalities, and the large number of bilateral arrangements (side letters), the assessment of such agreements requires not only more in depth analysis but also novel approaches than the assessment of simpler PTAs.
1. TARIFFS

Tariffs have remained substantially stable since 2008. As of 2014, developed countries import restrictiveness is about 1.5 percent. Import restrictiveness remained relatively high in developing countries, especially in South Asia and Sub-Saharan African Countries. Exporters in East and South Asia are those facing relatively higher tariffs.

Figure 1
Average Import and Export Restrictiveness, by Region

Figure 1a portrays the tariff trade restrictiveness index (TTRI) which measures the average level of tariff restrictions imposed on imports. The market access counterpart (MA-TTRI) summarizes the tariff restrictiveness faced by exports (Figure 1b). Both indices are calculated on the basis of applied tariffs (ad-valorem and specific), including tariff preferences. Multilateral and unilateral liberalization contributed to the decline of tariff restrictions during the last decade. Nevertheless, despite a continuing declining trend, the tariff liberalization process has largely stalled since 2008. As of 2014, tariff restrictiveness was still substantially higher in developing countries relative to developed countries. Among developing countries, import restrictiveness is relatively more restrictive in South Asian and Sub-Saharan African countries.

In terms of export restrictiveness, Transition economies and Sub-Saharan African countries faced the most liberal market access conditions with a MA-TTRI of about 1.5 per cent in 2014. This was largely due to unilateral preferences granted by developed countries and an export composition tilted towards natural resources that typically face low tariffs. In contrast, exports from East and South Asia faced a higher average level of restrictiveness, about 3.5 percent. For many countries in these regions, trade liberalization in major trading partners aimed at lowering tariffs can still produce substantial export gains.
Since 2008, tariffs have somewhat declined on a multilateral and preferential basis. World trade in agriculture and natural resources has been liberalized both through MFN treatment and more widespread preferential access. In regard to manufacturing, liberalization has occurred mainly through preferential access.

**Figure 2**
Multilateral and Preferential Tariff Liberalization

Figure 2a and 2b illustrate average MFN and preferential tariffs for 2008 and 2014 in three main sectors. For Agriculture, the decline in tariffs that occurred since 2008 is the result of both MFN and preferential liberalization. Simple average MFN tariffs in agricultural products have declined by about 2 percentage points since 2008, and trade-weighted averages by more than 3 percentage points. Preferential liberalization has contributed another 2 percentage points to the reduction of simple agricultural tariffs, and much less so on a trade weighted basis. In regard to manufacturing, MFN tariffs have remained largely stable. The proliferation of preferential schemes has resulted in relatively larger reductions in this sector, amounting to about 1 percentage point. Still, a shift in trade composition towards products affected by higher tariffs has tilted the average preferential tariff for manufacturing to about 2.7 percent. Liberalization both in MFN and preferential terms has also occurred in the natural resource trade, further reducing the already low levels of tariffs in this sector.
International trade is largely free from tariffs both as a result of zero MFN duties and because of duty-free preferential access. However, tariffs applied to the remainder of international trade can be high. Preferential access continues to play a key role for agricultural market access, but remain also significant for manufacturing products.

Figure 3
Free Trade and Remaining Tariffs, by Broad Category

International trade has been largely liberalized owing to both zero MFN tariffs as well as preferential duty-free access. In 2014 a substantial part of world trade was free as a result (Figure 3a). Still, tariffs applied to the remainder of international trade are often high (Figure 3b). Importantly, there are differences between agriculture, manufacturing and natural resources. Agricultural trade is free largely due to preferential access (as opposed to zero MFN tariffs). In this regard, preferential access and reciprocal concessions continue to play a key role for agricultural market access, as the remaining tariffs are fairly high (averaging almost 20 per cent). Preferential access is also important for manufacturing products, for which the simple average tariff is at almost 10 percent. On the other hand, preferential access is of limited importance in the case of natural resources, as trade in this category is largely free under MFN rates, and remaining tariffs are generally very low (on average about 6 per cent).
Low average tariffs mask large differences across economic categories and product sectors. In general, international trade in agriculture is taxed at a much higher rate than trade in manufacturing and natural resources. Tariffs also remain relatively high for manufacturing products of importance for developing countries such as textiles and apparel.

Figures 4a and 4b depict the trade weighted average tariff for broad as well as specific categories of products. Tariff restrictions remain quite different across geographic regions and economic sectors. In general, international trade in agriculture is taxed at a much higher rate than trade in manufacturing and natural resources. Even within agriculture, tariffs vary greatly across geographic regions. South Asian and East Asian countries and transition economies tend to apply relatively high tariffs in agriculture, while such tariffs are on average much lower in Latin American and developed countries. Manufacturing tariffs remain high only in the South Asian region (almost 10 per cent on average), and in Sub-Saharan Africa (about 7 per cent on average). Average tariffs vary greatly across product sectors, ranging from about 8 per cent for vegetable products to almost zero for fuels, ores and office machineries. Even considering all concessions and preferential schemes, international trade is subject to high tariffs not only in relation to agricultural products but also in the case of manufacturing products of importance for developing countries such as textiles (almost 5 per cent) and apparel (almost 7 per cent). Finally, although tariffs have been declining in most sectors, they have increased in others. Nonetheless, the trend of increasing tariffs has been limited to a number of cases (for example, rise in tariffs on vegetable oils in South Asia).
Amidst generally low tariffs, there are a significant number of products where tariffs are relatively high. Tariff peaks are part of the tariff structures of many developing and developed countries. Tariff peaks tend to be concentrated in products of interest to low income countries, such as agriculture as well as apparel, textiles and tanning.

In view of generally low tariffs, and even after all concessions such as unilateral and reciprocal preferential schemes are taken into account, there remain a significant number of products for which tariffs are relatively high. These high tariffs (above 15 per cent) are generally referred to as tariff peaks and are usually levied on sensitive products. Tariff peaks appear in the tariff structure of many developing countries, but with different patterns. For example, tariff peaks are a large part of the tariff structure of agricultural products of developing countries in South Asia and Sub-Saharan Africa, but this is not the case in the Transition economies (Figure 5a). Tariff peaks tend to be much lower in manufacturing, and especially in natural resources. Tariff peaks tend to be concentrated in products of interest to low income countries, such as most agricultural sectors, but also apparel, textiles and tanning. For example, tariffs on about 10 percent of international trade in food products (and 25 per cent of the products in this group) are higher than 15 per cent (Figure 5b). Similarly, about 10 percent of international trade in apparel is subject to a tariff of 15 per cent or more.
Tariff escalation remains a feature of the tariff regimes of both developed and developing countries. Tariff escalation is more pervasive in manufacturing products than in agriculture. Tariff escalation is prevalent in most sectors, including those of importance to developing countries, such as apparel.

Figure 6
Tariff Escalation by Region, Broad Category and Sector

Tariff escalation – the practice of imposing higher tariffs on consumer (finished) products than on intermediates and raw materials – is present in the tariff structure of many countries. This practice favors processing industries closer to consumers, while discouraging the undertaking of processing activities in countries where raw materials originate. Most developing and developed countries adopt escalating tariff structures, but to varying degrees. Tariff escalation is more pervasive in manufacturing products than in agriculture (Figure 6a). Indeed, the tariff structure of countries in South Asia, West Asia and North Africa is not escalating in the agricultural sector. Tariff escalation is prevalent in most sectors, including those of importance to developing countries, such as apparel, animal products, tanning and many light manufacturing sectors (Figure 6b).
The pattern of trade restrictiveness varies greatly among regional trade flows. 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 goods being imported into South Asia and Sub-Saharan Africa. The tariff liberalization process of the past 5 years is reflected in lower tariffs for most intra- and inter-regional flows.

Table 1: Tariff Restrictiveness, Matrix by Region

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<th>Importing Region</th>
<th>Developed Countries</th>
<th>East Asia</th>
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Note: changes between 2008-2014 in smaller font

Table 1 represents a matrix of the average levels of tariffs imposed on trade flows between regions in 2014. Differences in the rates exhibited in Table 1 arise from different patterns of both market access and trade composition. The effect of regional trade agreements is reflected in the relatively lower degree of restrictiveness on intra-regional as compared to inter-regional trade. However, this is not the case for Sub-Saharan Africa exports, where market access is often better for inter-regional than for intra-regional trade. This is partly due to preferences granted to least developed countries (LDCs), but also owing to the tariff barriers imposed by Sub-Saharan African countries on trade amongst 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 about 13 per cent when sold to South Asia and Sub-Saharan Africa. Trade flows between many regions have been liberalized over the past five years as a result of an increasingly diverse geographic pattern of regional trade agreements. However, some inter-regional trade flows have also become subject to higher tariffs. The latter phenomenon is mainly caused by a shifting composition of trade flows (as opposed to an increase in tariffs on particular product lines).
The system of tariff preferences affects international competitiveness by providing various countries with different market access conditions. 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 4.5 percentage points.

Table 2: Relative Preferential Margins, Matrix by Region

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<tr>
<th>Importing Region</th>
<th>Developed Countries</th>
<th>East Asia</th>
<th>Latin America</th>
<th>South Asia</th>
<th>Sub-Saharan Africa</th>
<th>Transition Economies</th>
<th>W.Asia &amp; N.Africa</th>
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<td>W.Asia &amp; N.Africa</td>
<td>0.3</td>
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<td>-0.6</td>
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</tbody>
</table>

*Note: changes between 2008-2014 in smaller font*

Table 2 reports relative preferential margins (RPM) calculated at the regional level for 2014 and their changes since 2008. RPMs provide a measure of the average preferential margin for a given country by taking into consideration any preference provided by its trading partners to foreign competitors. RPMs 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. RPM is larger for Latin American countries which enjoy about a 4.5 percentage point advantage on 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. Least favoured are exporters of South Asia and East Asia seeking to trade with Latin America. For Sub-Saharan exporters, the effects of the system of preferences for inter-regional trade are often negligible.
Import restrictiveness differs substantially across countries, and even within the same region. Preferential schemes allow least developed countries to enjoy duty free access to many developed countries' markets. However, developing countries' exports, especially those in Eastern Asia, Latin America and East Africa still face relatively high tariffs.

Figure 7
Import Restrictiveness

(a) Import restrictiveness (2014)

Source: UNCTAD calculations based on UN COMTRADE and UNCTAD TRAINS data

(b) Export restrictiveness (2014)

Source: UNCTAD calculations based on UN COMTRADE and UNCTAD TRAINS data

Figure 7a illustrates the average level of tariff restrictions imposed on imports (as measured by the TTRI). The level of tariffs differs substantially across countries, and even within the same region. Figure 7b reports the overall level of tariff restrictions faced by exporters (as measured by the MA-TTRI). Many Latin American countries face high tariffs because their exports largely comprise agricultural products. Due to export composition, and also because of limited preferential rates, Chinese exports face relatively higher tariffs than those of many other developing countries.
2. TRADE AGREEMENTS

The international trading system is regulated by an increasing number of preferential trade agreements (PTAs). Most of the recent trade agreements address not only goods but also services, and deal with rules beyond reciprocal tariff concessions. In 2014 almost half of world trade was taking place between countries that had signed a PTA, and almost one third was regulated by deep trade agreements.

Figure 8 Trade Agreements

Figure 8a illustrates the number of preferential trade agreements (PTAs) that have been in force in each year since 2004. The number of PTAs in force has more than doubled from less than 120 in 2004 to more than 250 in 2014. This upward trend is likely to continue as additional PTAs are still in the negotiation phase and likely to be implemented in the next few years. About half of all trade agreements in force go beyond tariff concessions, to cover services and behind-the-border measures. Although the number of PTAs has increased dramatically, the percentage of trade taking place under PTAs has not increased as much (Figure 8b). Still, even without considering intra-EU trade, about 30 percent of world trade took place under deep trade agreements (i.e. those with trade rules going beyond traditional tariffs and existing WTO agreements, to cover deeper behind-the-border measures) in 2014. Another 15 per cent of world trade was covered by trade agreements limited to preferential access, and about 7 per cent was under unilateral preferences such as the ones provided by developed countries to least developed countries.
The importance of trade agreements is high for many developed countries, but not as much for the majority of developing countries; notable exceptions include a number of countries in South East Asia, Southern Africa and Latin America.

A large share of international trade of many developed countries occurs under some form of preferential trade agreement (PTA), and in many cases under trade rules going beyond traditional reciprocal market access concessions. For EU countries, more than 75 per cent of trade occurs under some form of PTA (Figure 9a), and more than 50 per cent under deep agreements (i.e. those with trade rules going beyond traditional tariffs and existing WTO agreements, to cover deeper behind-the-border measures) (Figure 9b). However, most developing countries' trade still occurs outside PTA rules, with notable exceptions being some countries in South East Asia, Southern Africa and Latin America.
Trade agreements result in different degrees 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 tariff water. Policy space within the WTO is greater for Sub-Saharan African countries, and lower income countries in general. Once PTAs are accounted for, a substantial amount of trade is locked under preferential tariffs, which in turn means that the amount of "true" tariff water in many cases is less than half of the WTO binding overhang.

Figure 10
Policy Space: Multilateral Constraints

(a) Tariff water (2014)

(b) True tariff water (2014)

Figure 10a portrays the average tariff water calculated as the difference between the WTO bound and applied MFN tariffs. Policy space within the WTO is greater for developing countries, especially those of lower income status. Figure 10b portrays the average tariff water calculated as the difference between bound and applied tariffs, taking into account the implicit bindings imposed by both WTO and PTA commitments. Countries that have a large share of trade under preferential commitments and/or have low true tariff water cannot raise their tariffs without infringing WTO or PTA commitments.
3. NON-TARIFF MEASURES

Non-tariff measures include a diverse array of policy measures serving different purposes. Among the various types of non-tariff measures, technical barriers are the most pervasive, as the majority of international trade is regulated by some form of technical barrier. Quantity and price control measures cover a much smaller, but still significant, share of world trade.

Data on non-tariff measures (NTMs) is still fragmentary and therefore does not allow computation of comparative statistics across countries. Although the data may also not be fully representative of world trade, some preliminary statistics may be derived from the available data. Figure 11a illustrates the distribution of NTMs across 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 (TBT), with more than 30 per cent of product lines and almost 70 per cent of world trade affected. Quantity and price control measures affect about 15 per cent of world trade. Sanitary and phytosanitary measures (SPS) affect about 10 per cent of world trade. Export measures are applied to international trade less frequently, as their use is specific to particular sectors and generally used only by a small number of countries. When looking at the coverage of NTMs by broad category (Figure 11b), one can observe that agriculture is the most affected, with most of world agricultural trade subject to forms of SPS and TBT measures.
The prevalence of various types of non-tariff measures differs by economic sectors. Sectors related to agriculture tend to be regulated by SPS and export measures. TBTs measures are used to regulate most economic sectors. Quantity and price measures although used in many sectors cover only much smaller percentage of trade.

Figure 12
Non-Tariff Measures, by Sector

(a) TBT Measures

(b) SPS Measures

(c) Quantity and Price Measures

(d) Export Measures

Technical barriers to trade (TBT) are widely used to regulate international trade in most sectors and regard the vast majority of world trade (Figure 12a). Sanitary and Phytosanitary (SPS) measures are typically applied to agricultural products, and to some extent to other products that may have inherent health hazards due to contaminants (Figure 12b). Quantity and price control measures are widely applied to many sectors, mostly by developing countries. They cover a large share of world trade, mainly agricultural related products. (Figure 12c). Finally, agricultural sectors as well as petroleum products and chemicals are generally affected by export measures, often in the form of export subsidies (Figure 12d).
4. TRADE DEFENCE MEASURES

The use of trade defence measures resulted in almost 250 new investigations started at the WTO in 2014. Cumulatively, there were about 1,500 cases involving trade defence measures in effect in 2014. During the last decade, developing countries have become increasingly more active users of trade defence measures.

Trade defence measures in the form of antidumping, countervailing duties and safeguards allow countries to actively respond to import-related concerns within a well-established WTO mechanism. During the past decade there were commonly between 150 and 250 antidumping cases brought annually before the WTO (Figure 13a). However, the number of antidumping cases brought to the WTO spiked in 2013, with more than 300 new cases by then subsiding 2014. Generally, trade defence measures remain in effect for five years and sometimes more, and therefore the stock of measures affecting trade in any given year is significantly higher than the corresponding number of new cases each year. As of 2014, there were more than 1,500 cases whereby some form of trade defence measure (generally specific or ad-valorem duty) was in effect (Figure 13b). Both developed and developing countries make use of trade defence measures. Still, developing countries have become increasingly more active users of trade defence measures.
The use and impact of trade defence measures varies greatly across countries. Trade defence measures are imposed mainly by developed and emerging economies, and are largely targeted against products originating from China, the European Union and United States.

Figure 14
Trade Defence Measures in Effect, by Country

(a) Trade defence measures in effect, by imposing country (2014)

(b) Trade defence measures in effect, by targeted country (2014)

The vast majority of cases relating to trade defence measures are brought to the WTO by major economies. The main users of such measures include India, United States, European Union, China and, more recently, also Turkey, Brazil and Argentina (Figure 14a). China is by far the most targeted county with more than 400 measures in effect as of 2014 (Figure 14b). A large number of trade defence measures are also imposed against the European Union, the United States and India.
As of 2014, about two-thirds of trade defence measures were targeted at firms operating in two sectors: chemicals and basic metals. Most trade defence measures were initiated by developing countries against other developing countries. Investigations started in 2014 were mainly in the basic metals sector, with chemicals and rubber and plastic products far behind.

Trade defence measures are largely targeted at firms operating in two sectors: chemicals and basic metals (Figure 15a). Other sectors including metal products, rubber and plastics, textiles and to non-metallic minerals are also targeted by trade defence measure, but to a much lower extent. Most trade defence measures are initiated by developing countries against other developing countries (South-South). Measures imposed by developing countries and targeting developed countries (South-North) are less common and largely confined to the case of chemicals, basic metals and paper products. Measures applied by developed countries are largely concentrated in the metals, chemicals and food products sector and mostly directed against firms in developing countries. With regard to investigations started in 2014, these were mainly against firms operating in the basic metals sector. Most of these investigations were targeting firms in developing countries (Figure 15b).
5. EXCHANGE RATES

As measured by the real effective exchange rate, external competitiveness has declined for many countries in Africa and East Asia between 2010-2014. On the other hand, the major economies of Latin America have seen their competitiveness increase. Since 2013 external competitiveness has increased in many transition economies.

The Real Effective Exchange Rate (REER) is a measure of the trade-weighted average exchange rate of a currency against a basket of currencies after adjusting for inflation differentials (consumer price index). It measures external competitiveness. In general, an appreciation in the REER results in a loss of competitiveness, while a decline in the REER indicates an increase in external competitiveness. Figures 21a and 21b portray the percentage change in the REER exchange rates of world currencies vs the US dollar between 2010-2014 and between 2013-2014 respectively.
The movement in the nominal exchange rates vs the US dollars can play a substantial role in competitiveness of countries. Since 2010, with the notable exception of China, most of the developing countries' currencies depreciated vs the US dollar, sometimes quite substantially. The US dollar remained strong during the last year, with a number of currencies further depreciating.

### Figure 17
Change in the nominal exchange rate vs US dollar

(a) Exchange rates changes vs US dollar (2010-2014)

(b) Exchange rates changes vs US dollar (2013-2014)

As international trade transactions are generally in US dollars, appreciation and depreciations vs the US dollars can play a substantial role in competitiveness of countries. Figures 22a and 22b portray the percentage change in nominal exchange rates of world currencies vs the US dollar between 2010-2014 and between 2013-2014, respectively.