UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

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RETALIATORY TARIFFS BETWEEN THE UNITED STATES AND CHINA

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NOTE

Key Statistics and Trends in Trade Policy is a yearly publication of the Trade Analysis Branch, Division on International Trade and Commodities, UNCTAD secretariat. The main purpose of this publication is to inform on the use and effects of a wide range of trade policies influencing international trade.

The series is part of a larger effort by UNCTAD to analyse trade-related issues of particular importance to developing countries in terms of their participation in the international trading system, as requested by the mandate of the fourteenth session of the United Nations Conference on Trade and Development. This study was prepared by Alessandro Nicita.

OVERVIEW

With the notable exception of the increase in bilateral tariffs between the United States and China, tariffs have remained substantially stable during the last few years with tariff protection remaining a critical factor only in certain sectors in a limited number of markets. On the other hand, the use of regulatory measures and other non-tariff measures remains widespread and, in some cases, resulted in tensions among major economies.

As of 2018, trade costs directly related to tariffs were at about 1 per cent for developed countries' and at about 4 per cent for developing countries. Tariff restrictiveness remains substantial in many developing countries, especially in South Asia and sub-Saharan African countries. Moreover, tariffs remain relatively high in some sectors and tariff peaks are present in important sectors, including some of key interest to low income countries such as agriculture, apparel, textiles and leather products. Tariffs also remain substantial for most South–South trade. International trade is subject to 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 all agricultural trade. The past few years have also seen a general decrease in the number of trade defence investigations at the World Trade Organization (WTO), however the number of trade defence measures in effect has continued to increase.

The process of deeper economic integration has remained strong at the regional and bilateral levels, with an increasing number of preferential trade agreements (PTAs) being negotiated and implemented. Most of the recent PTAs address not only goods but also services and increasingly deal with rules beyond reciprocal tariff concessions to cover a wide range of behind the border issues. As of 2018, about half of world trade has occurred under some form of PTA. 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 last few years as they have influenced countries' external competitiveness. While currency movement have been small, the value of the United States dollar has remained constant in 2018.

This report is structured in two parts. The first part presents a discussion on ongoing trade tensions between the United States and China. The second part discusses trends in selected trade policy instruments including illustrative statistics. The second part is divided into five chapters: tariffs, trade agreements, non-tariff measures, trade defence measures, and exchange rates. Trade trends and statistics are provided at various levels of aggregation illustrating the use of the trade policy measures across economic sectors and geographic regions.

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 originate from the UNCTAD Trade Analysis and Information System (TRAINS) database (http://trains.unctad.org/), while data on bound tariffs derive from the WTO's Consolidated Tariff Schedules database (tdf.wto.org). Trade data are from the United Nations Commodity Trade Statistics Database (COMTRADE; comtrade.un.org). Data on trade defence measures are sourced from the WTO I-TIP (i-tip.wto.org). Tariff and trade data are at the Harmonized System 6-digit level and have been standardized to ensure comparability across countries. Data related to preferential trade agreements are derived from various databases, including the WTO regional trade agreement gateway (rtais.wto.org) and the World Bank global preferential agreements database (wits.worldbank.org/gptad/trade_database.html). Yearly exchange rate data originate from financial statistics of the International Monetary Fund, and other macro level data used in the figures originate from UNCTADstat (unctadstat.unctad.org). Unless otherwise specified, aggregated data cover more than 160 countries representing over 95 per cent of world trade. Data on non-tariff measures covers around 80 countries, covering about 90 per cent of world trade. The data on retaliatory tariffs utilized in the first part of the report was kindly provided by https://www.strtrade.com/

Countries are categorized by geographic region as defined by the United Nations classification (UNSD M49). Developed countries comprise those commonly categorized as such in United Nations 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 2019 (https://unctad.org/en/PublicationsLibrary/ditctab2019d5_en.pdf).

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.

GLOSSARY

Antidumping: 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

Binding overhang: The extent to which a country's WTO bound tariff rate exceeds its applied rate

Bound tariff line: See tariff binding

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

Effective exchange rate: An index of a currency's value relative to a group of other currencies

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

HS: Harmonized System – An international system for classifying goods in international trade

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

LDC: Least developed country

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

MFN (most favoured nation) tariff: The tariff level that a member of the General Agreement on Tariffs and Trade / 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

NTM: non-tariff measure – Any policy, other than tariffs, that alters the conditions of international trade

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

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

REER: real effective exchange rate –The effective exchange rate adjusted for the rate of inflation

RPM: relative preferential margin – A measure of the preferential margin for a given country relative to foreign competitors

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 General Agreement on Tariffs and Trade, 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 is/are particularly high

Tariff water: See binding overhang.

TBT: Technical barriers to trade

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

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

TTRI: Tariff trade restrictiveness index – An index measuring the average level of tariff restrictions imposed on imports

Unbound tariff line: See tariff binding

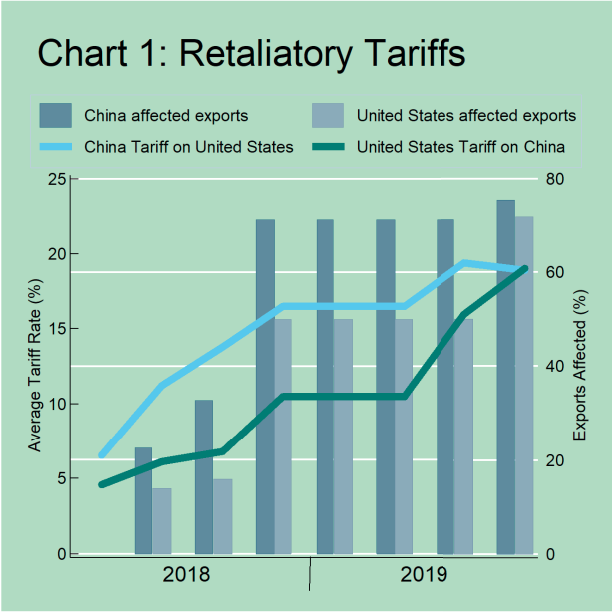
Weighted average tariff: Average tariffs, weighted by value of imports

WTO: World Trade Organization

IN FOCUS:

RETALIATORY TARIFFS BETWEEN THE UNITED STATES AND CHINA

The past year has been an eventful one with regard to international trade policy. Most notably, disagreements between the United States and China have escalated into rounds of retaliatory tariffs. The effect of such tariffs is already evident from trade statistics. Before the escalation of tariffs, the United States' imports of goods from China totalled about US$ 500 billion while Chinese imports of goods from the United States were about US$ 130 billion on an annual basis. For 2019, these statistics are expected to be in the order of about US$ 430 and 100 billion, respectively. Given the size of the economies involved, a general concern is the unavoidable impact that ongoing tensions between the United States and China will have on global growth. Overall, the global economy remains fragile and confrontations on the subject of international trade can have negative spillovers to commodities and financial markets and may increase the risk of a global economic downturn. More directly, trade frictions weigh on global growth as they impose adjustment costs to international firms which would reflect upon investment decisions, profitability and productivity.



Source: UNCTAD secretariat calculations based on COMTRADE.

To better understand the magnitude of changes that have taken place in the United States-China trade relationship, Chart 1 provides a timeline from Q1 2018 to Q4 2019 of the tariff escalation between the United States and China, as well as the percentage of bilateral trade affected by retaliatory tariffs. Before the start of the ongoing trade war, China and the United States were trading mostly under the most-favoured nation (MFN) terms. MFN commitments resulted in the United States imposing tariffs of about 4 per cent on imports from China, while China applied an average tariff of about 7 per cent on imports from the United States. Several rounds of retaliatory tariffs have had substantial effects on the tariffs applied by China and the United States on each other. The average tariff that the United States imposes on goods originating from China has increased fivefold in a period of less than 2 years, climbing from MFN levels to almost 20 per cent during Q4 2019. The average tariff applied by the United States on imports from China is supposed to climb to almost 25 per cent if further retaliatory actions are to take place. Similarly, the average tariff that China imposes on imports from the United States has climbed from about the MFN level of Q1 2018 to almost 20 per cent in Q4 2019. Such retaliatory tariffs while initially concentrated in a few key sectors have subsequently affected a much wider array of goods. As of December 2019, the United States and China are imposing an average tariff on each other of about 20 per cent while the goods subject to the retaliatory tariffs account for about three quarters of their trade.

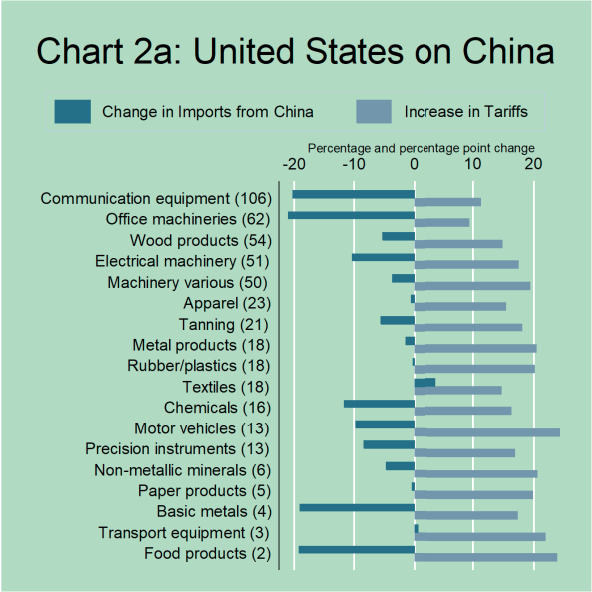
More in detail, the trade confrontation between the United States and China can be summarized in various rounds of retaliatory tariffs. The first round of the United States-China trade war happened in mid-2018, when the two countries implemented a 25 per cent tariff targeting about US$ 50 billion of each other's goods (United States Lists 1 and 2, counteracted by retaliatory measures by China). While the initial phase of the trade confrontation concerned a carefully selected limited number of goods, the tariff escalation of September 2018 was much more significant. The United States decided to apply 10 per cent tariffs on about US$ 200 billion of Chinese imports (United States List 3). To this action, China retaliated with additional tariffs on about US$ 60 billion of United States imports. After a lull of about 8 months, July 2019 brought about an increase by the United States of the retaliatory tariffs on List 3 from 10 to 25 per cent, to which China retaliated in a similar manner. Another significant escalation took place in September 2019, with the United States targeting most of its remaining Chinese imports with a 15 per cent tariff (List 4a effective September 1, 2019). China has retaliated to this latest round with additional and planned tariffs on about US$ 75 billion worth of imports from the United States. On a positive note, the retaliatory tariffs that were supposed to take place in mid-December 2019 have been cancelled because the two parties have reached a "phase one" trade deal. Currently, the two parties are engaged in negotiations to address the original disagreements. Whether the phase one trade deal represents a first step towards an improvement in the bilateral relationships or only a temporary truce remains to be seen.

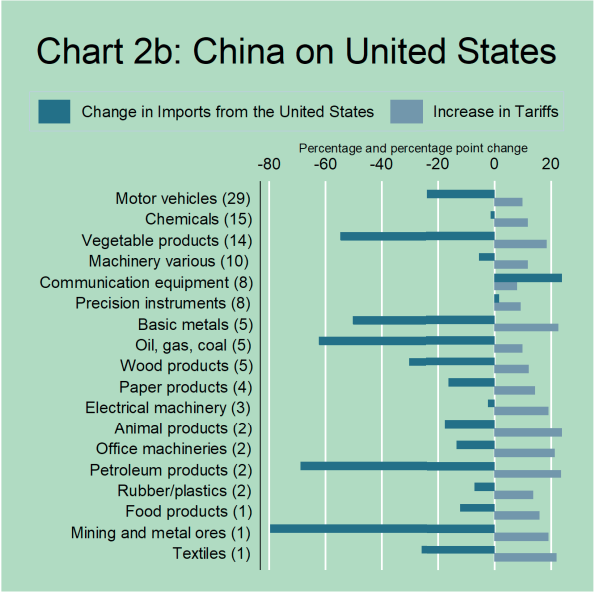
Retaliatory tariffs and trade effects, by sectors

Both the United States and China have been very cautious in choosing the products targeted by retaliatory tariffs, at least in the initial retaliatory rounds. For example, the United States has so far abstained from targeting mobile phones, while China has avoided imposing retaliatory tariffs on wide-body aircraft. The decision of whether a good should or should not be subject to retaliatory tariffs depends a key factor: whether the good can be produced domestically or sourced from other countries. If that is not the case, the tariff would directly affect domestic prices and therefore produce a net loss for the imposing country. In general, retaliatory tariffs reflect both offensive and defensive strategies. The purpose of retaliatory tariffs is to impose maximum harm to the opposing party, while minimizing the harm on the domestic industry. This strategy becomes evident with an examination of the products subject to additional tariffs, especially in the early stages of trade confrontation. Both the United States and China tended to target intermediate products and raw agricultural goods to a larger extent than final and consumer products. For the United States, the rationale was to hurt China by putting pressure on value chains and to make them relocate production outside of China. For China, the strategy was to curb agricultural imports from the United States to negatively affect producers in the United States while increasing imports of agricultural goods from elsewhere (e.g. soybeans from Brazil). Except for United States List 4b, which if implemented will target most of the Chinese exports not yet subject to tariffs, intermediate inputs were those most targeted by both the United States and China during their multiple rounds of retaliatory tariffs.

Subsequent retaliatory rounds ended up affecting most of the bilateral trade, and as of Q3 2019, all economic sectors have seen an increase in tariffs. Charts 2a and 2b report the percentage change in imports along with the percentage points increase in tariffs for the sectors of most importance for the two economies. Changes are calculated by comparing the value of trade in the last four quarters of available date (Q4 2018 to Q3 2019) from the values observed in the four quarters preceding the initial round of tariff escalation.

As Q4 2019, the United States' retaliatory tariffs on China have not spared any economic sectors. Retaliatory tariffs resulted in an average increase in tariffs from a minimum of about 10 per cent for office machinery and communication equipment to a maximum of 25 per cent for motor vehicles. Still, increases in tariffs have not produced a substantial decline in imports across all sectors. The about 10 per cent average increase in tariffs on communication equipment and office machineries (the two most important sectors for Chinese exports to the United States) has resulted in a more than proportional decrease in trade (about 20 per cent). On the other hand, the more substantial tariff increases in other sectors (e.g. apparel, textiles, rubber/plastics) have not produced a significant decrease in imports, at least on the average. Similarly, Chinese tariffs on imports from the United States were very effective in curbing the trade of motor vehicles (minus 25 per cent) vegetable products (minus 55 per cent), basic metals (minus 50 per cent) and oil, gas and coal (minus 62 per cent). However, tariffs on chemicals did not produce any significant drop in imports from the United States. Moreover, Chinese imports of communication equipment from the United States increased during 2019, despite an increase in tariffs of almost 10 per cent. The reason for such counterintuitive trends is to be found in the dynamics of the retaliatory rounds. Tariffs are often announced first and then implemented with a lag of several weeks or months. In the



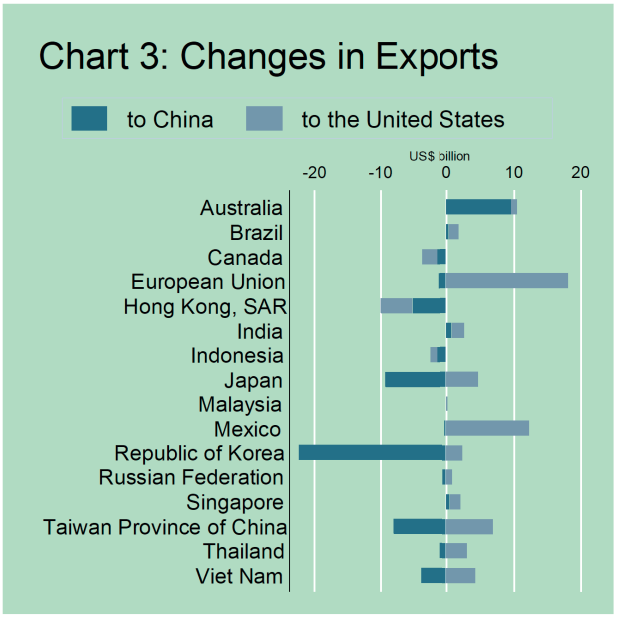


Source: UNCTAD Secretariat calculations based on UNCTADStat. *Note*: Value of imports for 2017 are in parentheses (US$ billion).

period between announcement and implementation, firms often try to rush orders and increase inventories in order to avoid paying the tariffs. In the case of communication equipment, the increase of Chinese imports from the United States for 2019 is almost exclusively due to the increase in the United States exports of specific microprocessors that are essential for the Chinese ITC assembly sector. Indeed, imports of microprocessors under code HS 854231 increased from US$ 1.4 billion to US$ 3 billion during the first half of 2019. This was the most evident case of frontloading as firms were fearing that microprocessors could be subject to retaliatory tariffs in the fourth quarter of 2019.

International trade patterns

Because While the brunt of the effects of the tariffs will fall on the two countries directly involved, when it comes to trade nothing happens in isolation. Because of the size of the two economies, the tariffs implemented by the United States and China will inevitably have significant repercussions on international trade. The impact of tariffs on international patterns of trade depends primarily upon the extent to which United States-China trade will be substituted with products originating from other countries. Some products may not be easily substituted because of a lack of foreign competitors or because of United States/ Chinese suppliers willing to absorb at least part of the additional costs from tariffs. This implies that even with substantial tariffs, some trade will continue to occur between the two countries, while some bilateral trade will inevitably be diverted to other countries or lost due to price rises and import substitution effects. While some countries will benefit from trade diversion effects, others will suffer as regional value chains will shift.



Source: UNCTAD secretariat calculations based on United States and China national statistics.

Chart 3 reports the change in exports to the United States and China for a few selected economies. Among the countries which saw exports to the United States increase during the last four quarters are the European Union, Mexico, Taiwan Province of China, and Viet Nam. Regarding

the Chinese market, the only major economy that saw a substantial increase in exports has been Australia. Positive increases have also been recorded for Brazil, India and Singapore, but to a much smaller extent. These effects are largely driven by import substitution. The fact that most East Asian economies increased their exports to the United States can be interpreted as the results of Chinese firms losing competitive edge versus foreign competitors. For China the increases in imports from Australia and Brazil are largely related to agricultural products and energy.

Regarding export losses, exports to the United States declined only for Canada and Singapore. However, most of the major East Asian economies have seen a decline in their export to China. The Republic of Korea's exports to China were about 22 billion lower in the last four quarters while Japan's exports were about 10 billion lower than they were before tariff escalation. Significant drops were also observed for Hong Kong (China), Taiwan Province of China and Viet Nam. Such patterns suggest a shifting in value chain away from China. Many of the Asian economies provide intermediate inputs to factories in China to fuel Chinese exports to the United States. As Chinese exports have declined, the use of intermediate inputs originating from East Asian economies used by the Chinese has declined as well.

General concerns and the overall effects on the multilateral trading system

One major concern is that the trade confrontations between the United States and China could spread to other countries. Since trade policies implemented by large economies are bound to influence international markets, even the countries not directly involved in the confrontations often find it efficient to adjust their trade policies to maximize opportunities or minimize negative spillovers. Countries negatively affected by the trade confrontation between the United States and China may be tempted to implement additional policies to support affected sectors. Although these policies are generally domestic in nature, they often have important implications for international trade. For example, policies that provide implicit subsidies to exports are likely to be counteracted by policy actions in other countries.

Another concern is the lasting effects that the trade confrontation has on global value chains. Today patterns of trade are greatly shaped by production networks, with assembly done in one country while parts and components originate from elsewhere. As indicated above, trade tensions between the United States and China have already manifested along the value chain. The rationale is that tariffs penalize not only the assembler of the product, but also any suppliers of intermediate products along the value chain. Of importance from a value chain perspective is also whether tariffs are temporary or intended to stay. If tariffs are perceived as temporary their effects on global value chains may not be large as there are substantial costs in moving producing processes around the world. However, the more the tariffs are perceived as permanent, the more they will affect investment decisions, and therefore tariffs may have a much longer lasting effect.

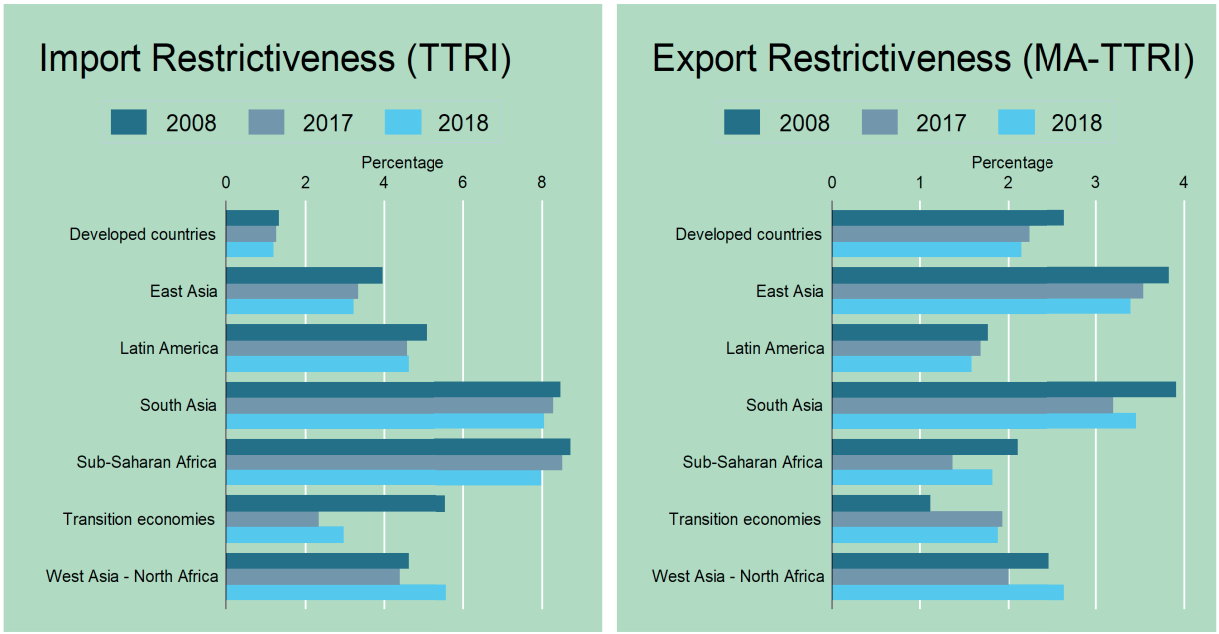
Finally, the ongoing trade tensions not only have implications for the global economy, but more so for the rules governing it. The very fact that negotiations and settlements on ongoing trade confrontations are taking place at a bilateral level rather than within the domain of the WTO denotes the weakening of the multilateral trading system which in turn may further advance unilateral, bilateral and regional trade policy initiatives. Although this may not necessarily be a negative outcome, such initiatives often give more leverage to economically powerful countries. Moreover, regional integration could exacerbate regulatory differences among trading blocks. Regional trade rules would likely become entrenched, reducing incentives to craft global trade rules. Direct implications for developing countries could result in hub and spoke frameworks with less value addition and fewer options for trade diversification.

1. TARIFFS

Tariffs have remained essentially stable since 2008. Developed countries import restrictiveness is about 1.5 per cent. Although generally declining, import restrictiveness remained relatively high in developing countries, especially in South Asia and sub-Saharan Africa. Exporters in East and South Asia face the highest tariffs. For transition economies import restrictiveness declined, while export restrictiveness increased.

Figure 1
Average import and export restrictiveness, by region

(a) **(b)**



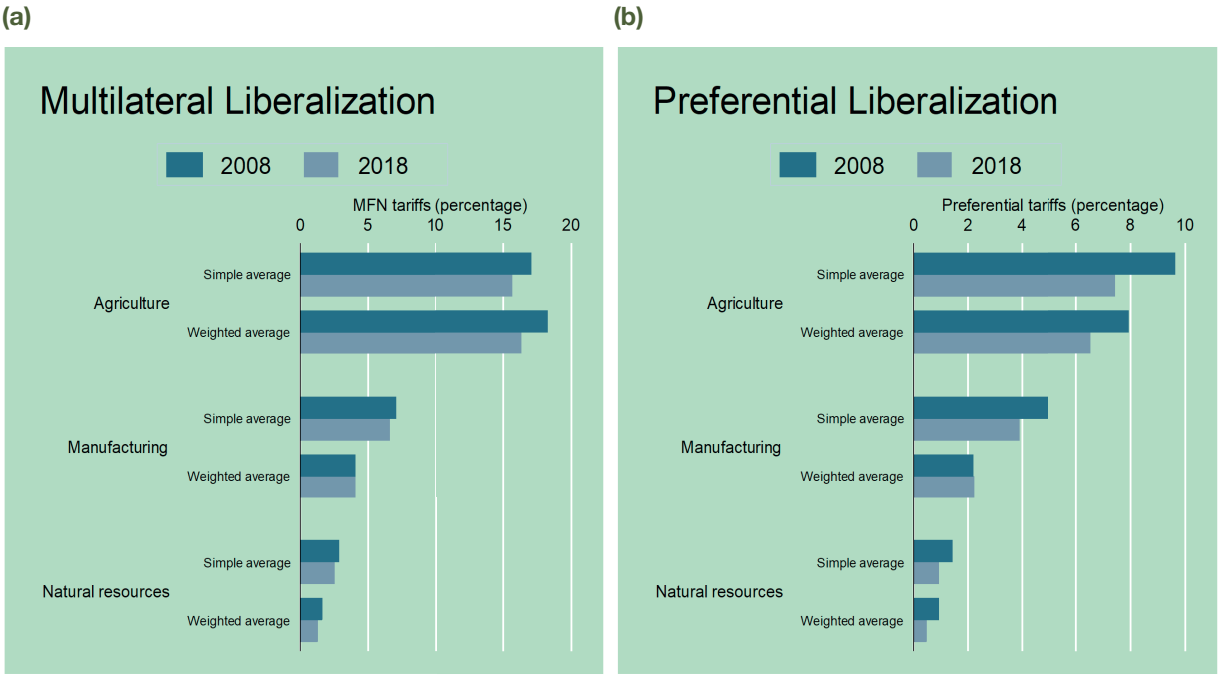
Source: UNCTAD secretariat calculations based on COMTRADE data and UNCTAD TRAINS data.

Figure 1a portrays the tariff trade restrictiveness index (TTRI), which measures the average level of tariff restrictions imposed on imports. The index is weighed so as to control for different import values and import demand elasticities. 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 tariffs), 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 2018, tariff restrictiveness remains substantially higher in developing countries than in developed countries. Among developing countries, import restrictiveness is highest in South Asia and sub-Saharan Africa.

In terms of export restrictiveness, transition economies and sub-Saharan African and Latin American countries faced the most liberal market access conditions with an MA-TTRI of about 1.5 per cent in 2018. 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 per cent. 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 most-favoured-nation (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



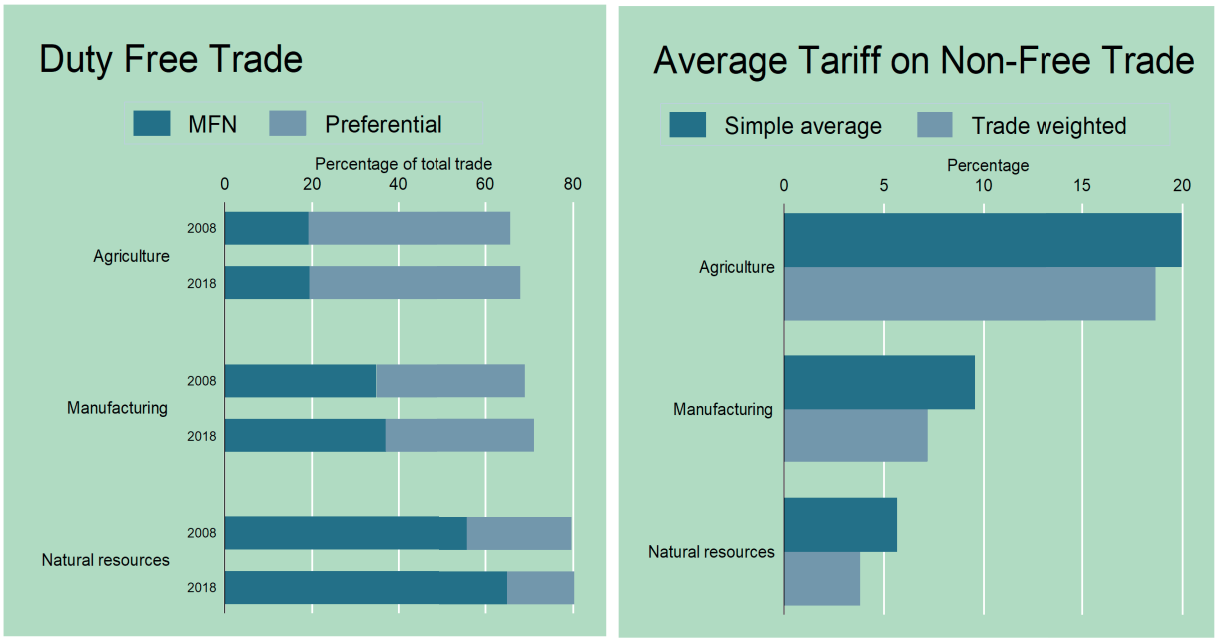
Source: UNCTAD secretariat calculations based on COMTRADE data and UNCTAD TRAINS data.

Figure 2a and 2b illustrate average MFN and preferential tariffs for 2008 and 2018 in three main sectors. For agriculture, the decline in tariffs that has 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 about 3 percentage points. Preferential liberalization has contributed another 2 percentage points to the reduction of simple agricultural tariffs, and 1.5 percentage points 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 2.5 per cent. Liberalization both in MFN and preferential terms has also occurred in natural resource trade, further reducing the already low levels of tariffs in this sector.

Although to a lower extent than in 2008, international trade continues to be 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 also remain significant for manufacturing products.

Figure 3
Free trade and remaining tariffs, by broad category

(a) **(b)**

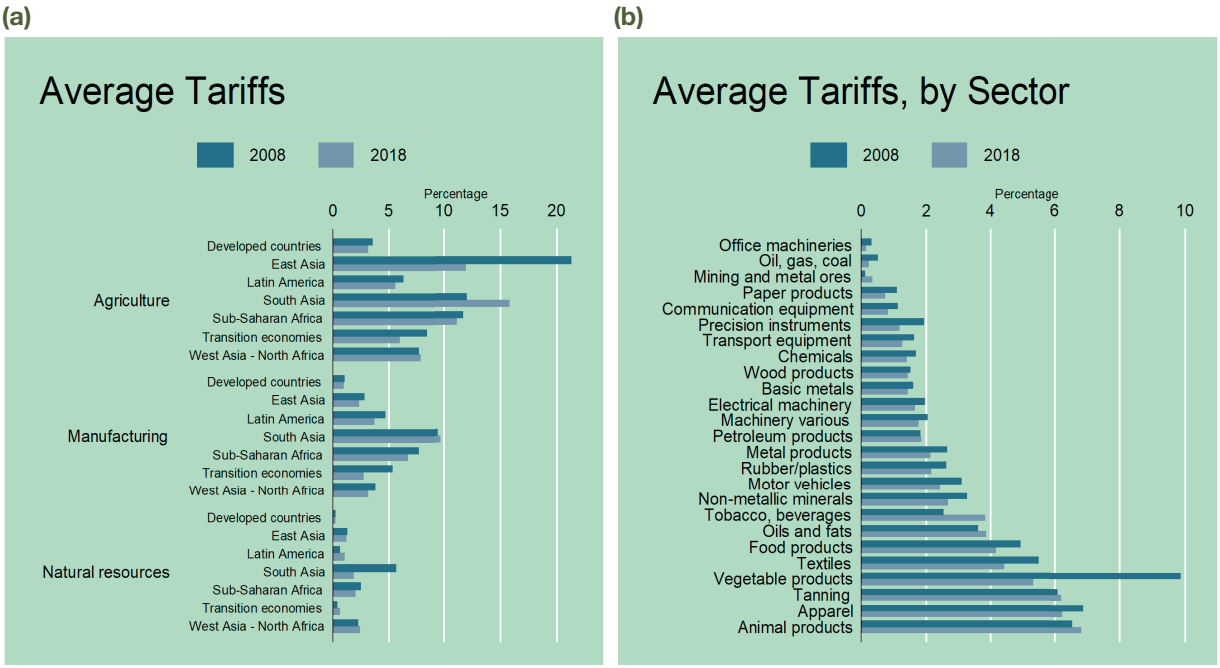


Source: UNCTAD secretariat calculations based on COMTRADE data and UNCTAD TRAINS data.

International trade has been largely liberalized owing to both zero MFN tariffs as well as preferential duty-free access. Although to a lower extent than in 2008, a substantial part of world trade continues to be free from tariffs (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 from tariffs 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 per cent. On the other hand, preferential access is of limited importance in the case of natural resources, as trade in this category is largely tariff-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, such as textiles and apparel, which are important for developing countries.

Figure 4
Trade weighted average tariffs, by region, broad category and sector



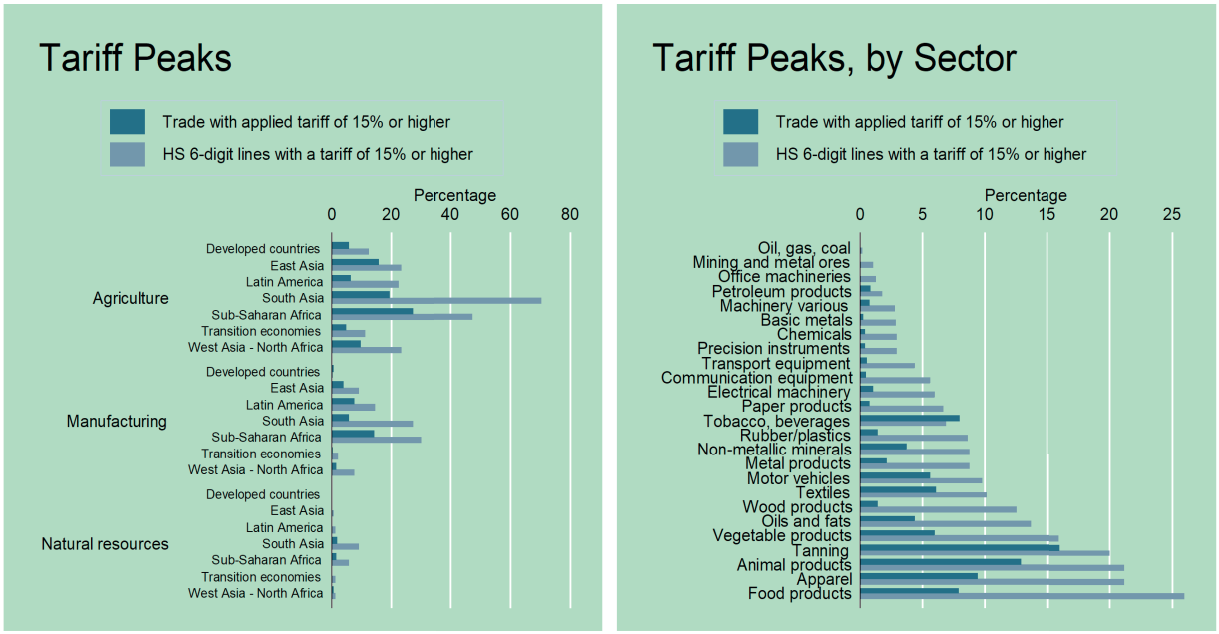
Source: UNCTAD secretariat calculations based on COMTRADE data and UNCTAD TRAINS data.

Figure 4 (a, b) depicts 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 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 7 per cent for Animal 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 (about 4 per cent) and apparel (about 6 per cent). Finally, although tariffs have been declining in most sectors, they have increased in some (e.g. Mining and metal ores, Tobacco and Beverages, Tannin, and Animal products).

Amid 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.

Figure 5
Tariff peaks, by region, broad category and sector (2018)

(a) **(b)**



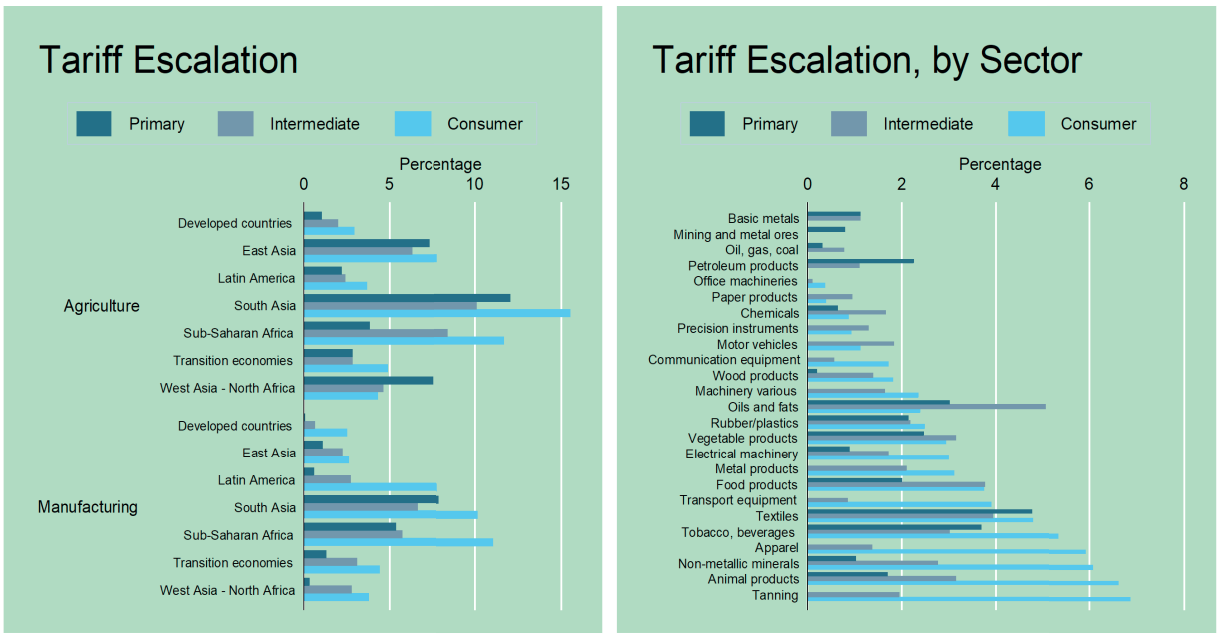
Source: UNCTAD secretariat calculations based on COMTRADE data and UNCTAD TRAINS data.

In view of generally low tariffs, and even when 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 less prevalent in manufacturing, and less so in natural resources sectors. Tariff peaks tend to be concentrated in some of the products of interest to low income countries, such as the agricultural sectors, but also apparel, textiles and tanning. For example, tariffs on about 10 per cent 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 per cent 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. It is more pervasive in manufacturing products than in agriculture. Tariff escalation is prevalent in most sectors, including those of importance (e.g. apparel) to developing countries.

Figure 6
Tariff escalation by region, broad category and sector (2018)

(a) **(b)**



Source: UNCTAD secretariat calculations based on COMTRADE data and UNCTAD TRAINS data.

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 favours 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 East 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: apparel, animal products, tanning and many light manufacturing sectors (Figure 6b).

The pattern of trade restrictiveness varies greatly among regional trade flows. Intraregional trade is generally subject to lower TTRI than interregional trade. A large number of South–South regional trade flows are still burdened by relatively high tariffs. The tariff liberalization process of the past five years is reflected in lower tariffs for most intra- and inter-regional flows.

Table 1
Tariff restrictiveness, matrix by region (percentage), 2018

Importing Region	Developed Countries	East Asia	Latin America	South Asia	Sub-Saharan Africa	Transition Economies	W.Asia & N.Africa
Developed Countries	1.5 -0.4	2.3 -0.2	1.1 0.3	2.0 -0.8	0.5 0.1	1.6 0.9	0.8 0.2
East Asia	4.3 -1.6	1.9 -1.4	4.4 0.0	4.1 0.1	3.1 1.1	3.8 1.4	2.8 0.2
Latin America	3.3 -0.5	7.9 -1.8	1.0 -0.6	11.3 -2.0	1.9 -0.5	1.6 0.1	3.1 -0.5
South Asia	9.5 0.1	6.8 -2.7	16.2 8.6	5.7 -2.5	5.4 -0.8	6.6 0.9	6.0 -1.8
Sub-Saharan Africa	7.1 -1.2	9.4 -1.6	9.4 0.1	9.1 1.5	2.3 -1.7	7.1 0.2	6.6 0.8
Transition Economies	3.0 -3.5	3.8 -4.1	6.4 -3.9	4.2 -6.1	1.9 -1.0	0.9 0.8	4.7 -3.1
W.Asia & N.Africa	4.6 0.5	5.4 0.0	4.5 -1.3	4.2 0.2	2.5 0.4	9.2 8.0	2.4 0.3

Note: Changes between 2008 and 2018 are shown in a smaller font.

Table 1 represents a matrix of the average levels of tariffs imposed on trade flows between regions in 2018. Differences in the rates exhibited in the table 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 intraregional compared with interregional trade. However, this is not the case for exports from sub-Saharan Africa and South Asia countries, for which market access is often better for interregional trade than for intraregional trade. This is partly due to preferences granted to LDCs, but also owing to the tariff barriers imposed by sub-Saharan African countries on trade among each other. A large number of South–South trade flows are still burdened by relatively high tariffs. For example, exports from Latin American countries to the South Asian region face an average tariff of about 16 per cent. 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 interregional 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. Because trade agreements are often regional, the system of preferences tends to favour regional trade over interregional trade. Still, the magnitude of the effect of preferences differs widely across regions. Sub-Saharan African countries enjoy the highest preferential margins in trading with regional partners, estimated at about 4.4 percentage points.

Table 2
Relative preferential margins, matrix by region (percentage), 2018

	Exporting Region						
Importing Region	**Developed Countries**	**East Asia**	**Latin America**	**South Asia**	**Sub-Saharan Africa**	**Transition Economies**	**W.Asia & N.Africa**
Developed Countries	0.3 0.0	-1.0 -0.1	0.7 0.3	0.2 1.0	0.3 0.2	-0.4 -0.3	0.1 -0.1
East Asia	0.1 0.4	0.6 0.2	-0.9 -0.9	-0.5 -0.4	-0.9 -0.9	-1.0 -0.9	-0.6 -0.5
Latin America	0.4 -0.6	-1.5 1.0	3.9 -0.6	-3.9 -1.0	-0.5 0.5	-0.5 0.0	-0.7 0.2
South Asia	-0.8 -0.6	0.5 0.4	-0.2 -0.1	2.4 0.9	0.2 0.3	-0.5 -0.4	-0.4 -0.3
Sub-Saharan Africa	0.1 0.5	-1.6 0.0	-1.8 -0.9	-1.2 -0.5	4.4 1.6	-0.8 -0.4	-0.1 0.2
Transition Economies	-0.2 0.3	-0.9 0.1	-1.4 -1.0	-1.0 -0.2	-0.1 -0.1	2.6 -0.5	-0.8 0.1
W.Asia & N.Africa	0.4 0.3	-1.2 0.0	-1.2 -0.5	-0.8 -0.1	-0.6 -0.5	-1.3 -0.3	1.7 -0.7

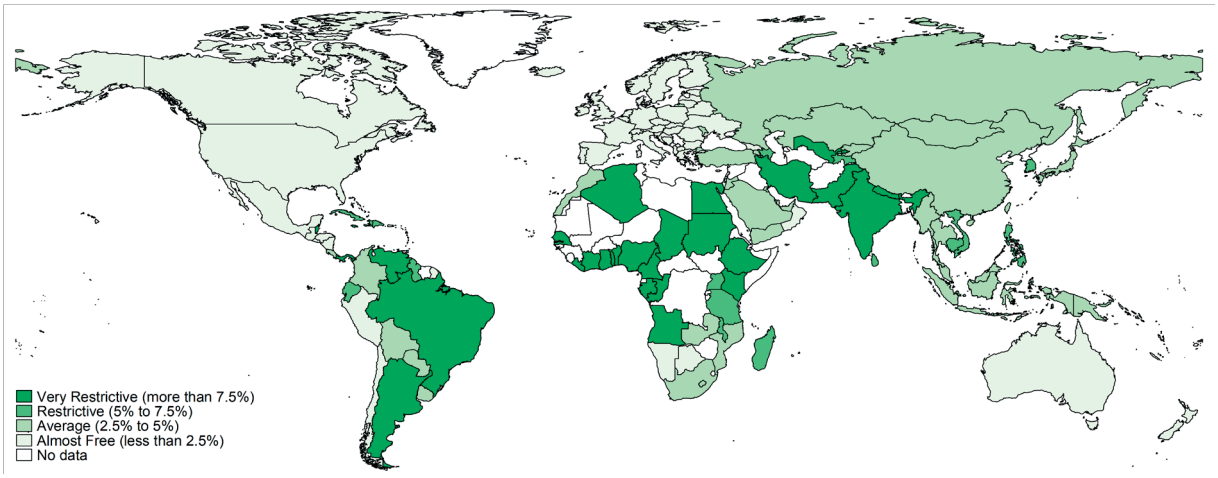
Note: Changes between 2008 and 2018 are shown in a smaller font.

Table 2 reports relative preferential margins (RPMs) calculated at the regional level for 2018 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; it is largest for Sub-Saharan countries, which enjoy about a 4.3 percentage point advantage on foreign competitors when trading within their region. The RPM is also large within Latin America, almost 4 per cent). On the other hand, the preferential systems provide only about 0.5 percentage points advantage to East Asian countries trading in their own region. With very few exceptions, interregional trade faces a negative RPM, suggesting that the preferential tariff structure negatively impacts non-regional exporters' competitiveness. The least favoured are exporters of South Asia seeking to trade with Latin America. Those countries face RPM of about minus 4.

Import restrictiveness differs substantially across countries, and even within the same region. Preferential schemes allow LDCs to enjoy duty free access to many developed country markets. However, developing country exports, especially those in Eastern Asia, Latin America and East Africa, still face relatively high tariffs.

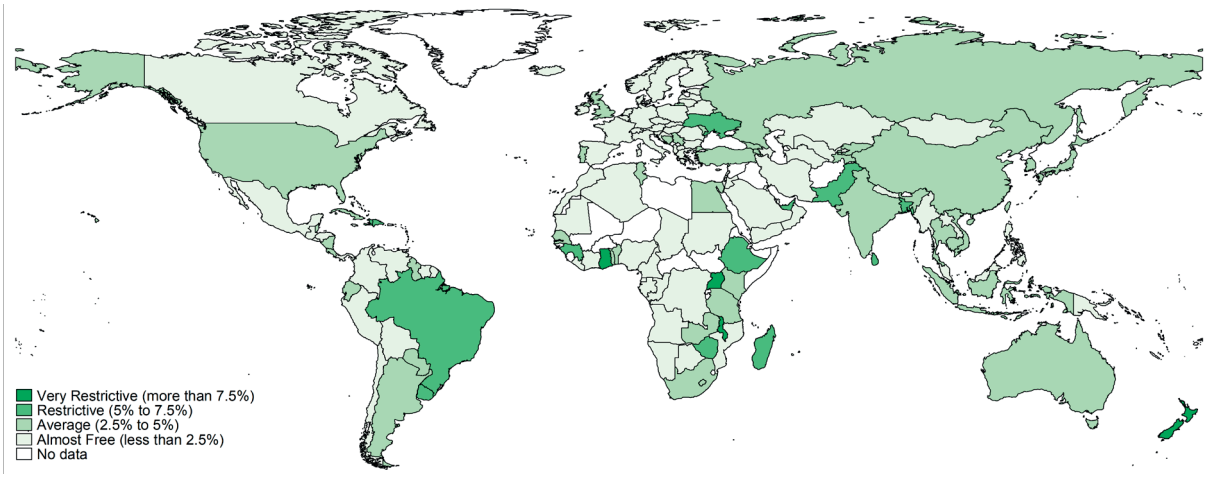
Figure 7
Import restrictiveness

(a) Import restrictiveness (2018)



Source: UNCTAD secretariat calculations based on COMTRADE and UNCTAD TRAINS data.

(b) Export restrictiveness (2018)



Source: UNCTAD secretariat calculations based on COMTRADE and UNCTAD TRAINS data.

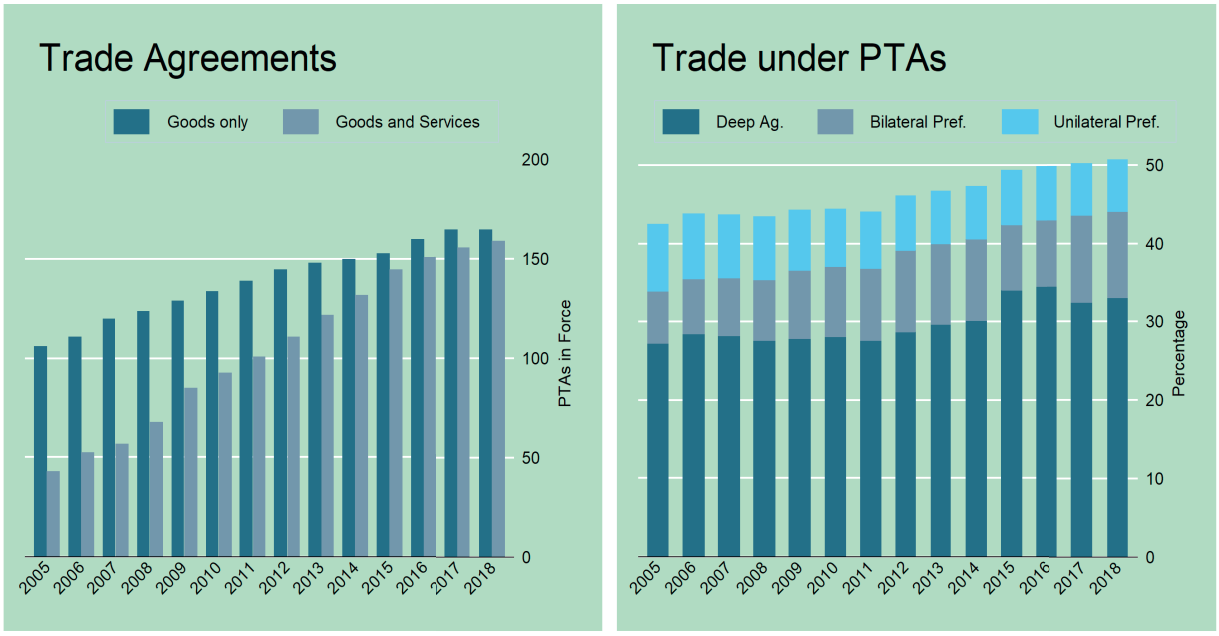
Figure 7a illustrates the average level of tariff restrictions imposed on imports (as measured by the TTRI). The level of tariffs differs substantially across countries, and even within the same region. Figure 7b reports the overall level of tariff restrictions faced by exporters (as measured by the MA-TTRI). A few Latin American countries face high tariffs because a large share of their exports consists of agricultural products. Due to export composition, and also because of limited preferential rates, Chinese exports face tariffs similar to 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. The percentage of trade within PTAs has continued to increase. In 2018, more than 50 per cent of world trade was taking place between countries that had signed a PTA, and one third was regulated by deep trade agreements.

Figure 8
Trade agreements

(a) (b)



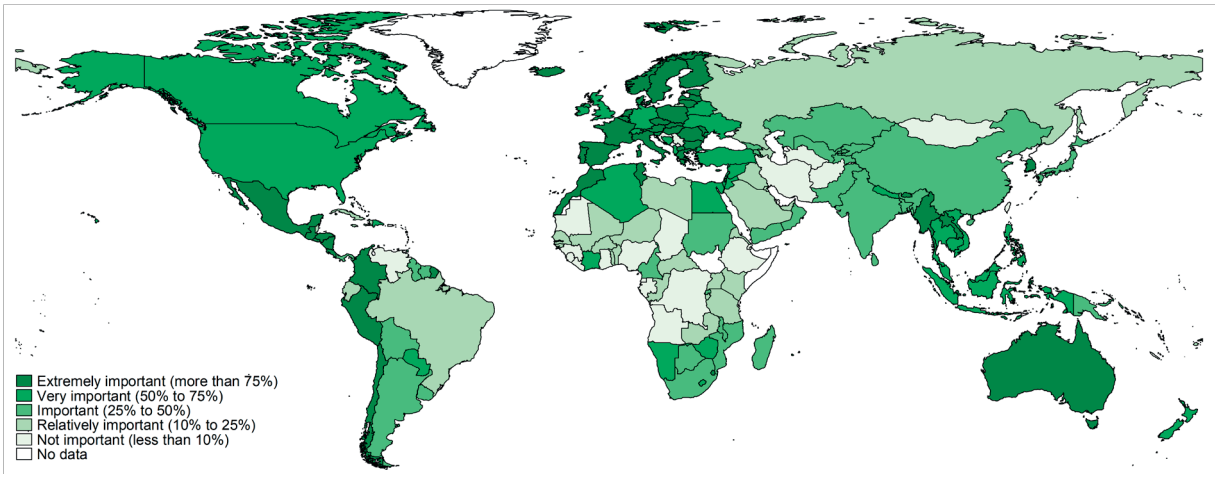
Source: UNCTAD secretariat calculations based on WTO RTAIS data and COMTRADE data.

Figure 8a illustrates the number of PTAs that have been in force in each year since 2005. The number of PTAs in force has approximately doubled from less than 150 in 2005 to more than 300 in 2018. Although still noticeable, the upward trend has been more muted after 2015. 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 trade within the European Union, about one third 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 2018. Almost 10 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 Generalized System of Preferences for developing countries and the ones provided specifically to LDCs.

The importance of trade agreements is generally high for developed countries, but not for many developing countries; notable exceptions include a number of countries in South East Asia, Southern Africa and Latin America.

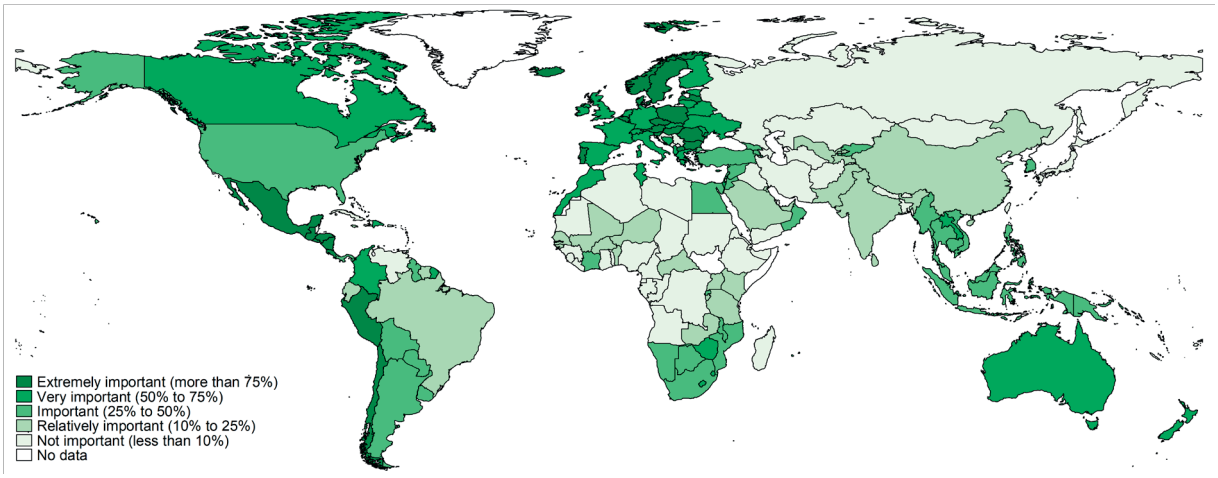
Figure 9
Importance of preferential trade agreements

(a) Importance of PTAs, as measured by percentage of trade (2018)



Source: UNCTAD secretariat calculations based on WTO RTAIS and COMTRADE data.

(b) Importance of deep PTAs, as measured by percentage of trade (2018)



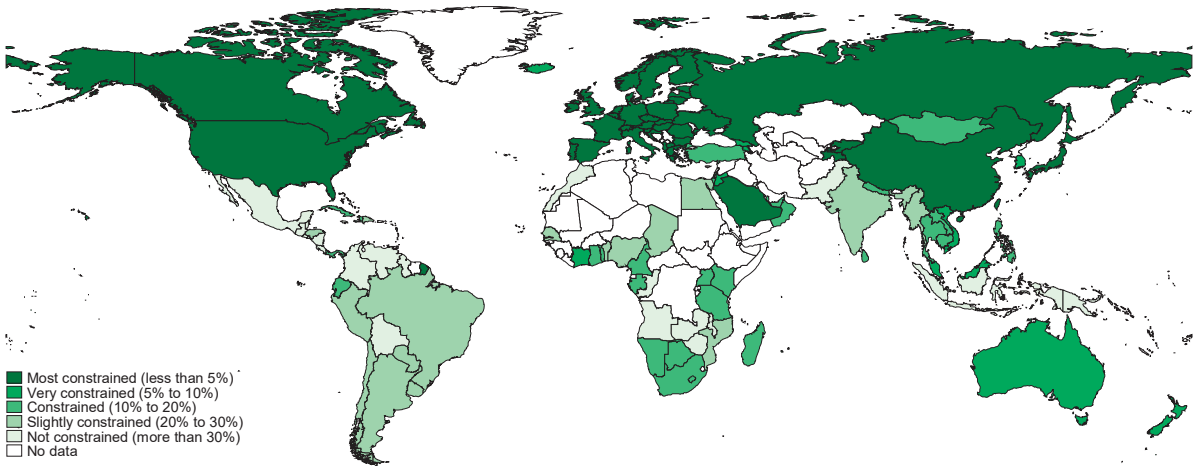
Source: UNCTAD secretariat calculations based on WTO RTAIS and COMTRADE data.

A large share of international trade of many developed countries occurs under some form of PTA, and in many cases under trade rules going beyond traditional reciprocal market access concessions. For countries of the European Union, 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 in some countries of 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.[1] Policy space within WTO is for 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 (2018)



(b) True tariff water (2018)

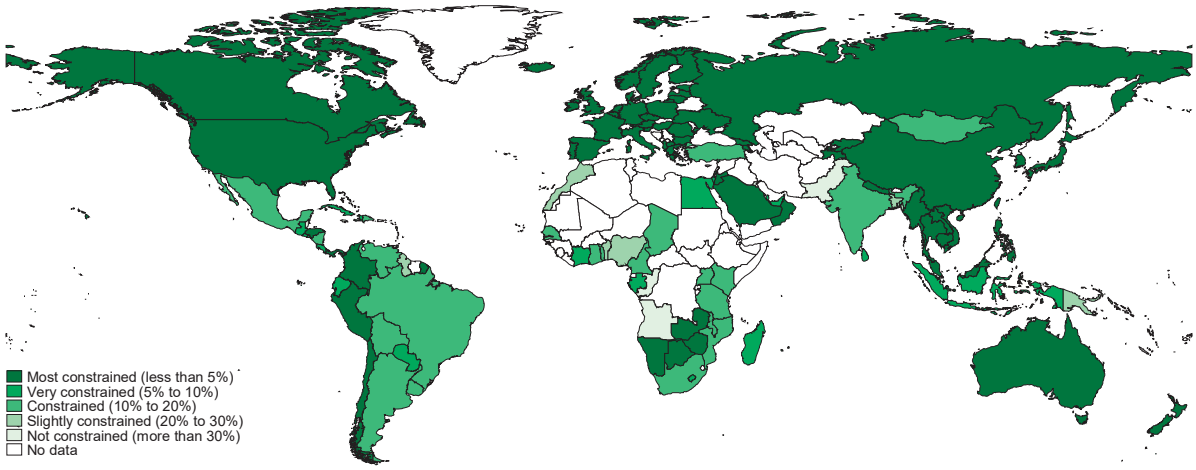


Figure 10a portrays the average tariff water (trade weighed) calculated as the difference between WTO bound tariffs and applied MFN tariffs. Policy space within WTO is greater for developing countries, especially those of lower income status. Figure 10b portrays the average tariff water calculated as the difference between bound and applied tariffs, considering 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.

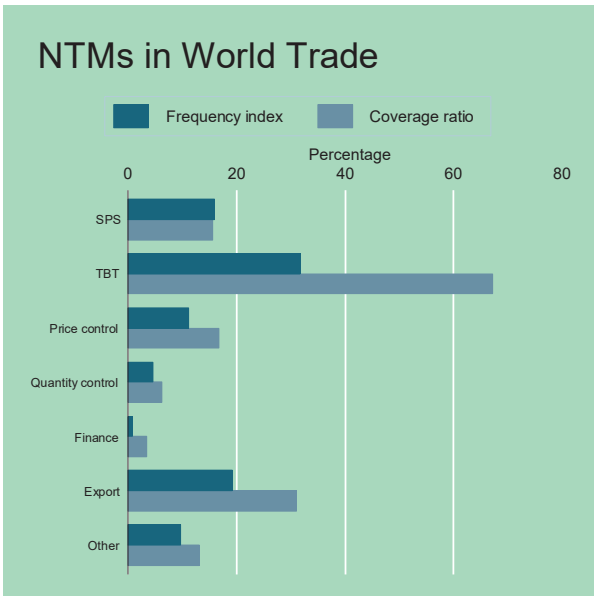
[1] The difference between the tariff that a country applies at the border and the country's commitments to other WTO members is referred to as "tariff water", or "binding overhang". In principle, tariff waters provide the policy space for country to set their tariff at non-cooperative levels.

3. NON-TARIFF MEASURES

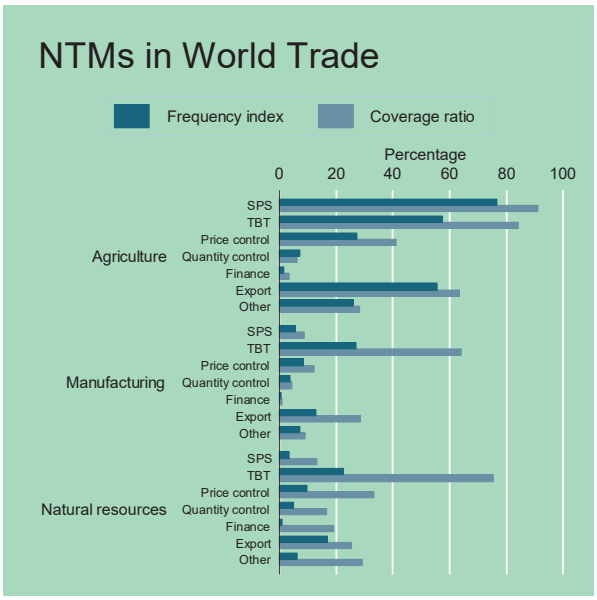
Non-tariff measures include a diverse array of policy measures serving different purposes. Among the various types of non-tariff measures, technical barriers are the most pervasive, as the majority of international trade is regulated by some form of technical barrier. Quantity and price control measures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

Figure 11
Prevalence of non-tariff measures, by type and broad category (2018)

(a)



(b)

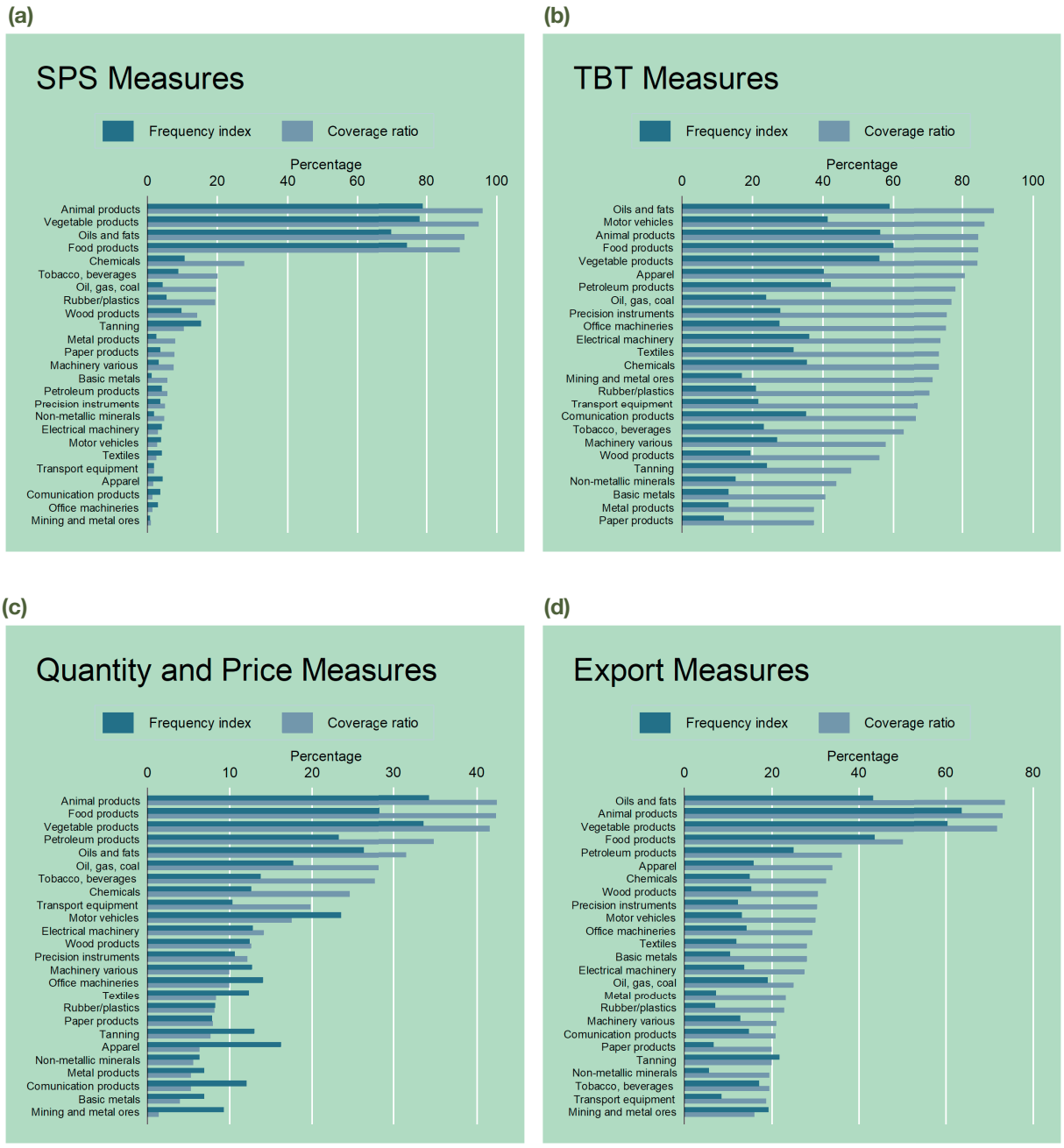


Source: UNCTAD secretariat calculations based on UNCTAD TRAINS data.

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 can 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 to Trade (TBT) with more than 30 per cent of product lines and almost 70 per cent of world trade affected. Price control measures affect about 15 per cent of world trade. SPS affect almost 20 per cent of world trade. Export measures are also frequently applied to international trade, still their use is largely related to agriculture. Coverage of NTMs by broad category (Figure 11b), shows that agriculture is the most affected, with most of world agricultural trade subject to forms of SPS and TBT.

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. TBT 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 (2018)



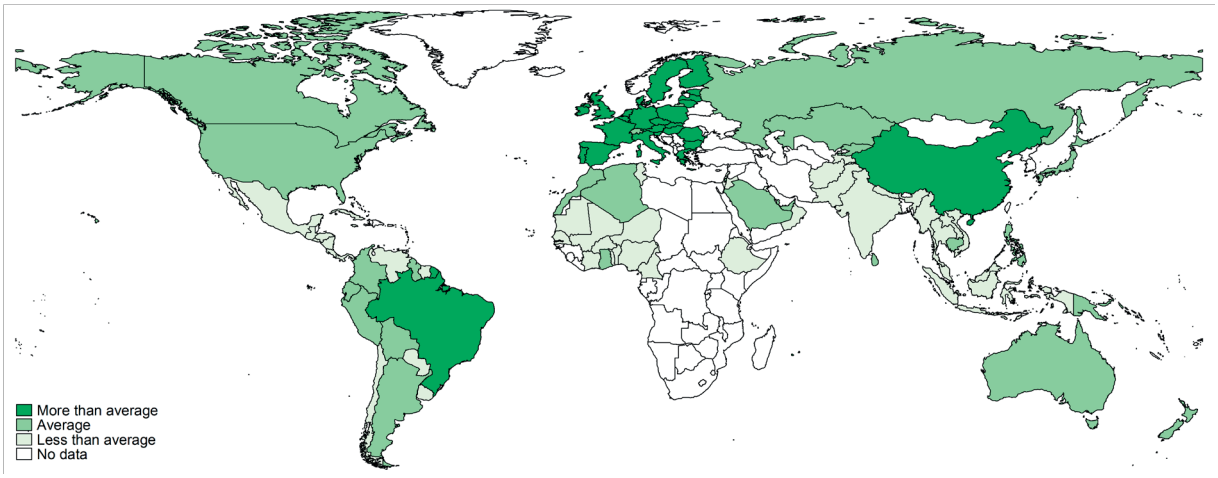
Source: UNCTAD secretariat calculations based on UNCTAD TRAINS data.

SPS measures are typically applied to agricultural products, and to other products that may have inherent health hazards due to contaminants (Figure 12a). TBT are widely used to regulate international trade in most sectors and concern the vast majority of world trade flows (Figure 12b). Quantity and price control measures are widely applied to many sectors. They cover a large share of world trade in regard to agricultural related products. (Figure 12c). Finally, agricultural sectors as well as petroleum products and chemicals are generally affected by export measures (Figure 12d).

The regulatory framework related to technical non-tariff measures (SPS and TBT) differs across countries. The use of technical measures tends to be more pervasive in the European Union, China, Brazil and Australia and less so in many low-income countries. Developed countries' use of technical non-tariff measures tends to be more targeted to specific products. This applies also to China and Brazil. Other developing countries tend to use technical non-tariff measures in a more homogenous manner.

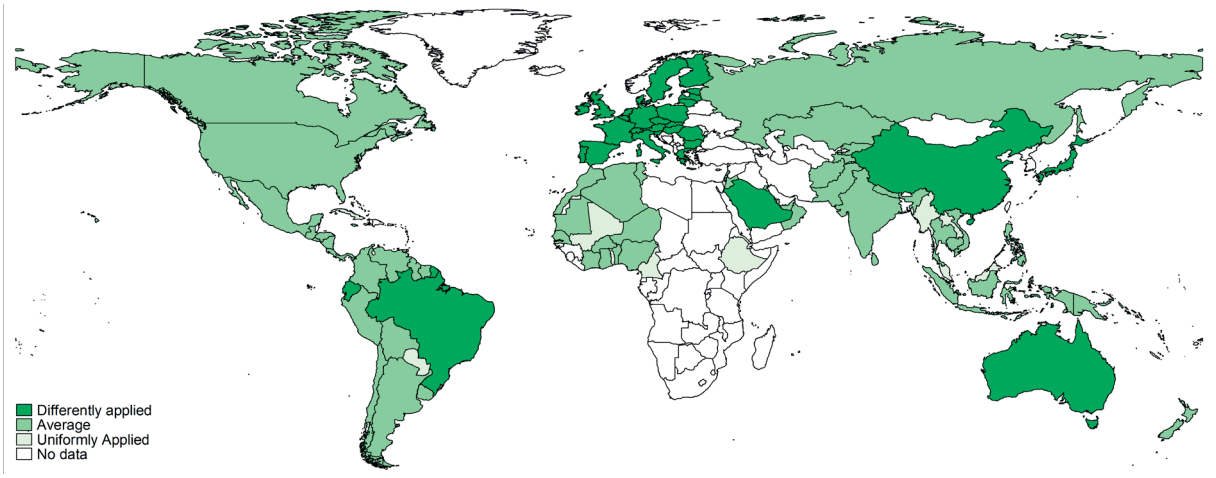
Figure 13
Technical non-tariff measures, by country

(a) Technical non-tariff measures, relative intensity across countries (2018)



Source: UNCTAD secretariat calculations based on UNCTAD TRAINS data.

(b) Technical non-tariff measures, intensity across products (2018)



Source: UNCTAD secretariat calculations based on UNCTAD TRAINS data.

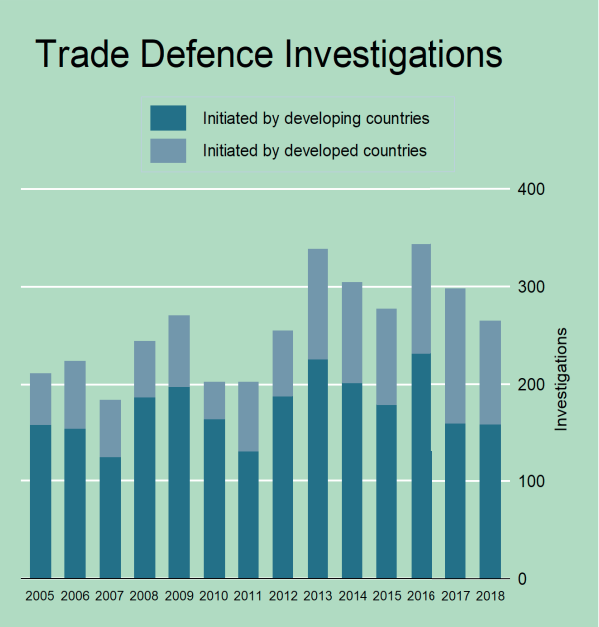
The use of technical NTMs differs across countries. To capture the diverse use of non-technical measures across countries Figure 13a illustrates an intensity. This index is computed by calculating the difference between the number of non-technical measures applied by a given country in each product and the average number of measures applied to that product. Then, country averages are computed by weighing each product by its importance in world trade. Figure 13b reports the standard deviation of product level differences within each country. This illustrates whether non-technical measures tend to be uniformly applied across products or are applied with different intensity across products.

4. TRADE DEFENCE MEASURES

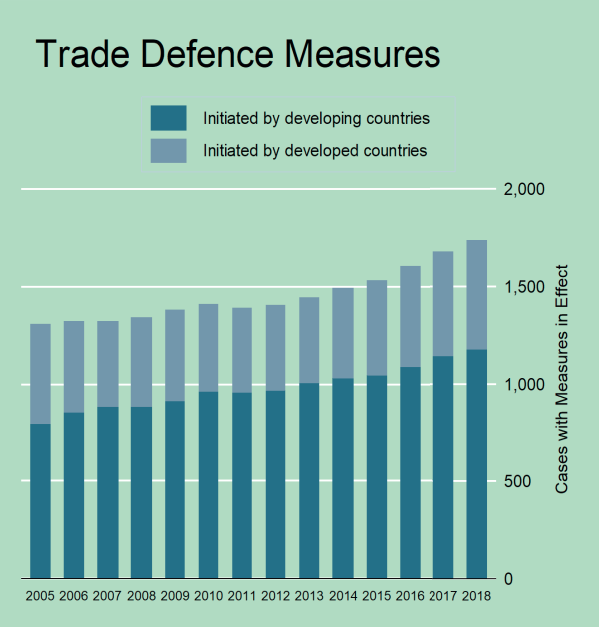
The use of trade defence measures remained strong in 2018 with about 300 new investigations started at the WTO. Cumulatively, there were more than 1,500 instances involving trade defence measures in effect in 2018. During the last decade, developing countries have become increasingly more active users of trade defence measures.

Figure 14
Trade defence measures, 2005-2018

(a)



(b)



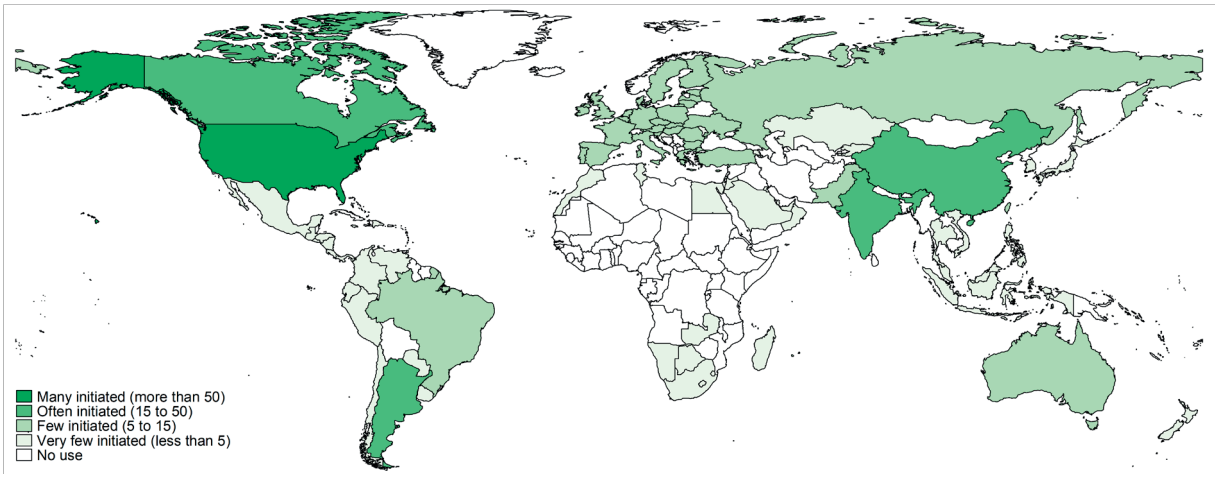
Source: UNCTAD secretariat calculations based on WTO I-TIP data.

Trade defence measures in the form of antidumping, countervailing duties and safeguards allow countries to actively respond to import-related concerns within an established WTO mechanism. During the past decade, between 150 and 250 antidumping cases were brought annually before WTO (Figure 14a). With peaks of about 330 cases in 2013 and 2016. 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 2018, there were about 1700 trade defence measures in effect (in general, specific or ad valorem duty) (Figure 14b). 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 of trade defence mechanisms vary greatly across countries. As with previous years, In 2018 most of trade defence investigations were initiated by developed and major developing coutries. In 2018, investigations were largely targeted against products originating from China and the European Union.

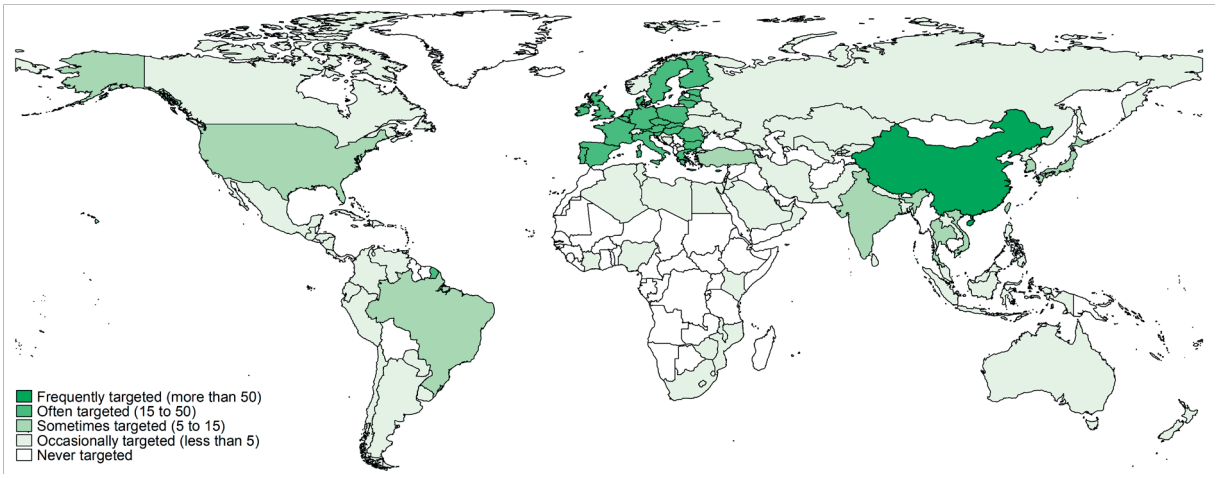
Figure 15
Trade defence measures in effect, by country

(a) Trade defence measures in effect, by imposing country (2018)



Source: UNCTAD secretariat calculations based on WTO I-TIP data.

(b) Trade defence measures in effect, by targeted country (2018)



Source: UNCTAD secretariat calculations based on WTO I-TIP data.

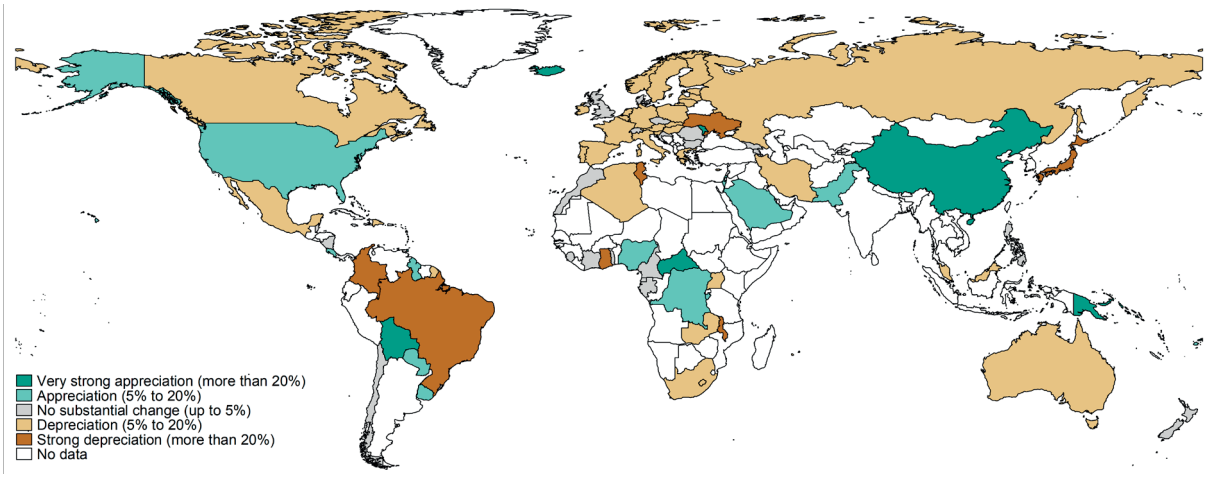
As in previous years, in 2018 most cases relating to trade defence investigations have been initiated by major economies. The main users of such measures include India, the United States, the European Union, China. Australia, Turkey, Brazil and Argentina have also been active in bringing trade complaints to the WTO (Figure 15a). China is by far the most targeted county with more than 50 investigations started in 2018 (Figure 15b). A large number of trade defence measures are also imposed against the European Union, the United States and India.

5. EXCHANGE RATES

As measured by the real effective exchange rate, changes in external competitiveness have been diverse across countries. In comparison with 2010 competitiveness in the United States and China has declined, while that of the European Union and Japan has increased. In comparison with 2017, eternal competitiveness of most countries has been stable, with the notable exceptional increases of Brazil, the Russian Federation and Pakistan.

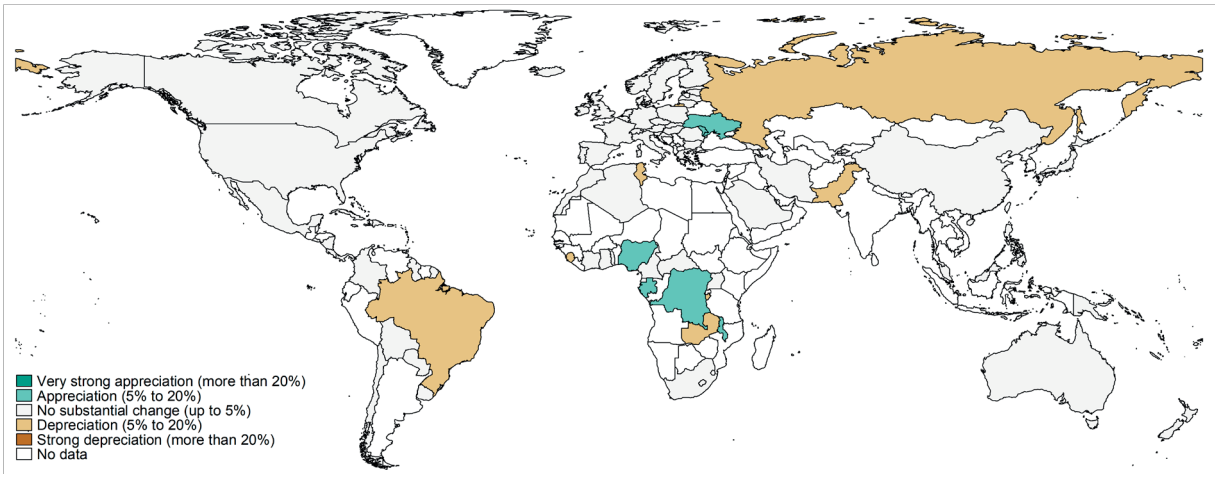
Figure 16
International competitiveness, real effective exchange rate

(a) REER changes between 2010 and 2018



Source: UNCTAD secretariat calculations based on IMF financial statistics.

(b) REER changes between 2016 and 2018



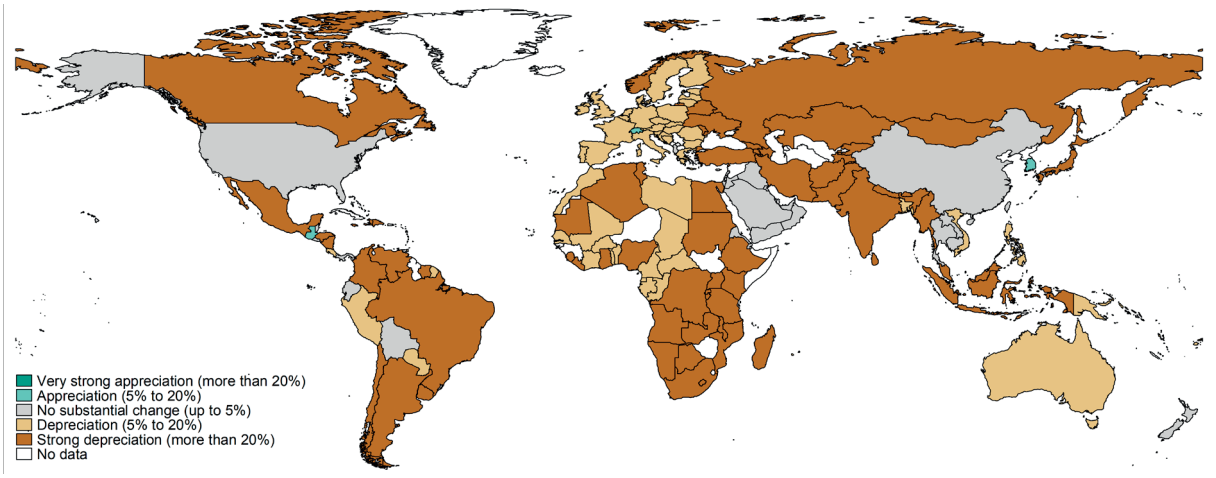
Source: UNCTAD secretariat calculations based on IMF financial statistics.

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.

Movements in the nominal exchange rates versus the dollar can play an important role in determining the competitiveness of countries. Since 2010, with the notable exception of China, most currencies depreciated against the dollar, sometimes substantially. The value of the United States dollar remained relatively stable against most currencies since 2017

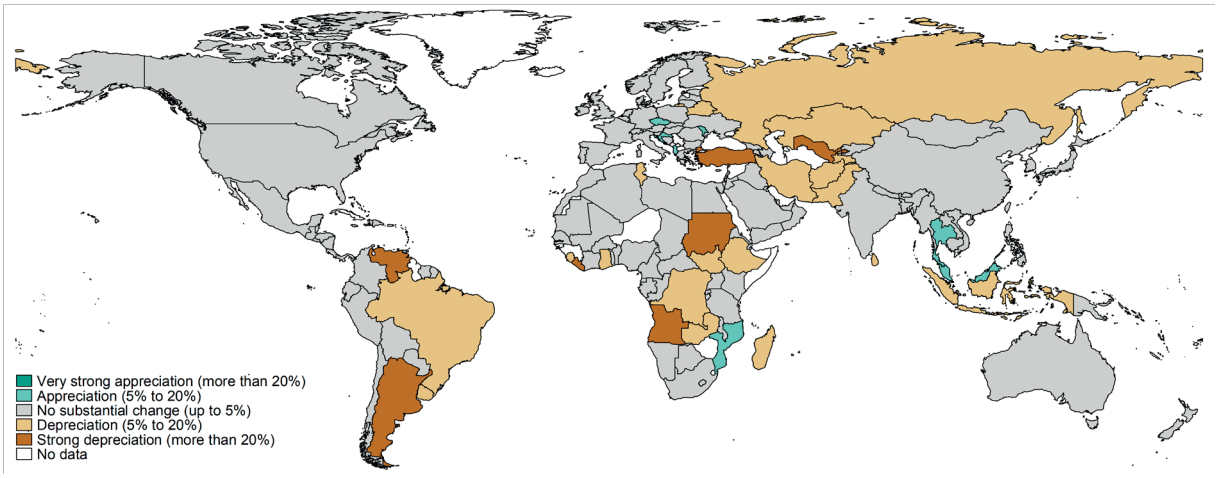
Figure 17
Change in the nominal exchange rate vs United States dollar

(a) Exchange rates changes vs United States dollar (2010-2018)



Source: UNCTAD secretariat calculations based on IMF financial statistics.

(b) Exchange rates changes vs United States dollar (2016-2018)



Source: UNCTAD secretariat calculations based on IMF financial statistics.

As international trade transactions are generally in dollars, appreciation and depreciations against the dollar can play a substantial role in the competitiveness of countries. Figures 18a and 18b portray the yearly average percentage change in nominal exchange rates of world currencies against the dollar between 2010 and 2018, and between 2017 and 2018, respectively (annual average).

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