KEY STATISTICS AND TRENDS in International Trade 2017

THE STATUS OF WORLD TRADE
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NOTE

*Key Statistics and Trends in International Trade* is a yearly publication. It is a product of the Trade Analysis Branch, Division on International Trade in Goods and Services, and Commodities (DITC), UNCTAD secretariat. This publication monitors the trends of international trade in goods and services in the medium term.

The series is part of a larger effort by UNCTAD to analyse trade-related issues of particular importance for developing countries, as requested by the mandate of UNCTAD XIV. Alessandro Nicita was the coordinator of this study. This study benefited from inputs and comments from various DITC staff members and the UNCTAD Statistics team. Desktop publishing was done by Jenifer Tacardon-Mercado.
OVERVIEW

After strongly rebounding from the Great Recession, international trade has grown at a sluggish pace that strongly deteriorated in 2015. In 2016 the value of international trade continued to decline. Recent trade statistics have been at odds not only with previous trends but also with respect to the overall economic environment. From 2011 to 2014 the value of international trade grew at a rate of less than 2 per cent per year, declined by 10 per cent in 2015, and by about 3 percent in 2016. A substantial part of the drop in international trade in the last two years was due to nominal factors, principally the fall in the price of commodities and the overall appreciation of the United States dollar. Weaker demand also played a role, especially in East Asia and in other parts of the developing world. In regard to 2016, although the largest decline occurred in commodity sectors, the value of trade continued to contract in many manufacturing and agricultural sectors. Services trade fared better overall, but declines in the value of trade were also observed in some of the service sectors. The trade collapse of 2015 affected all geographic regions, and the smaller declines of 2016 followed a similar pattern, with some minor exceptions. In particular, South–South trade performance was weak both in 2015 and 2016. On a positive note, trade continued to increase in volume terms both 2015 and 2016, although at a much lower rate than the historical trend. Moreover, trade both in value and in volume is expected to resume growth in 2017 and 2018.

This report is structured into two parts. The first part presents an overview of the status of international trade using statistics up to 2017. The second part provides illustrative statistics on international trade in goods and services covering the last decade. The second part is divided into two sections. Section 1 provides trade statistics at various levels of aggregation illustrating the evolution of trade across economic sectors and geographic regions. Section 2 presents some of the most commonly used trade indicators at the country level, so as to illustrate trade performance across countries.
DATA SOURCES

The statistics in this publication were produced by the UNCTAD secretariat by using data from various sources. This report relies on the United Nations Commodity Trade Statistics Database (COMTRADE) (comtrade.un.org) hard data for merchandise trade statistics. UNCTADstat (unctadstat.unctad.org) and United Nations Service Trade Database (UNST) (unstats.un.org/unsd/servicetrade) are the sources of service statistics. The data has been standardized to ensure cross-country comparisons. Data, although comprehensive and comparable across countries, does not perfectly reflect national statistics, and thus some discrepancies with specific national statistics may be present. Unless otherwise specified international trade is defined as trade in goods (merchandise) and services. 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) classification and the International Standard Industrial Classification (ISIC) augmented by five broad agricultural sectors based on the Harmonized System (HS) classification. Figures are in current United States of America dollars, except where otherwise specified.

The boundaries, colours, denominations, and other information shown on any map in this work do not imply any judgment on the part of UNCTAD concerning the legal status of any territory or the endorsement or acceptance of such boundaries.
**In focus: The status of world trade**

After strongly rebounding from the Great Recession of 2009, international trade has grown at a sluggish pace that turned dramatically negative in 2015. Trade statistics for 2016 have been also following a negative trend, but at a more moderate pace (a decline of about 3 per cent in value terms). These statistics have been at odds not only with previous trends but also with respect to the overall economic environment. Negative trade growth during a period of economic expansion has not been recorded since 2001, when the decline in the value of international trade was only marginal (not even 1 per cent). The magnitude of the decline in the trade of goods and services observed in 2015 and 2016 was a reflection of low commodity prices and of a change in the dynamics behind the process of international integration. The most commonly used index to gauge globalization trends – the ratio of the value of world trade over global output – indicates a decline in economic interdependence. This index stalled at about 30 per cent between 2011 and 2014 (a level first reached in 2007), and then fell by about 5 percentage points during 2015 and 2016. On a positive note, preliminary statistics for 2017 and the forecast for 2018 depict a less alarming picture. According to most international agencies, global output growth is expected to be between 3.2 and 3.6 per cent for 2017, with 2018 expected to register a similar increase. Global growth should positively influence world trade, which is expected to grow in 2017 between 3.5 and 4 per cent (in volume terms). A similar performance is forecasted for 2018.

The trade downturn of 2015 and 2016 was due to several factors. Primarily, a substantial part of the fall in the value of world trade was just nominal rather than a real contraction. In other words, while many exporters had to cope with lower prices, they saw no decline in export volumes. In particular, the fall in commodity prices and the appreciation of the United States dollar greatly contributed to the fall in the value of international trade. The appreciation of the US dollar has affected the value of international trade because the same volumes of goods can be purchased with fewer dollars. Still, deflationary factors can explain only some of the trade weakness of 2015 and 2016. The statistics on the volumes of trade for 2015 and 2016, although positive, were also below historical standards, especially for developing countries. This has seldom happened in the last few decades and only during economic downturns, as in 2001 and in 2009. Two other factors contributing to the decline in global trade were a weak demand in major developed economies and the transition of East Asian economies from a trade oriented strategy towards a more domestically focused development path. Moreover, the weakness of international trade can also be partly explained by the ongoing decline in the vertical specialization process across countries. An informative statistic for this trend is the reliance of the manufacturing sector on imported inputs (measured by the share of intermediate imports over the exports of manufacturing goods). This indicator has declined in many countries during the last decade. For example, in the case of China this statistic fell from almost 50 percent in 2007 to about 30 percent in 2016.
Geographically, the trade downturn of 2015 and 2016 was quite widespread. Developing countries were hit hard by the collapse in trade, and in most cases harder than developed countries. Chart 2 reports yearly decline rates in the value of imports and exports. While imports and exports decreased in every region, some regions fared substantially worse than others. The value of international trade tumbled the most in commodity exporting regions. Sub-Saharan Africa’s exports earnings declined by an average of about 20 per cent per year (about 30 percent in 2015 and an additional 10 percent in 2016). Lower oil prices contributed to the collapse of exports earnings in the transition economies and the region comprising West Asia and North Africa. Especially in those regions the lower exports earnings contributed to lower demand and reduced governments’ budgets, negatively affecting imports. Lower export earnings also contributed to recessions and often resulted in the depreciations in the exchange rates, which ultimately further reduced demand for imported goods.

Other regions have fared relatively better, but still registered significant declines. Latin American and South Asian trade fell by about 10 percent per year, both in relation to imports and exports. For the region of East Asia, imports fell substantially more than exports (about 10 per cent vs 5 per cent). The resilience of East Asian exports is not surprising, as East Asian manufacturing exporters are highly competitive and therefore were better able to weather the unfavourable economic environment. For developed countries, trade declined at a yearly rate of about 6 per cent in relation to imports and about 7 per cent in relation to exports.

During the last two years, the decline in export earnings was severe for many countries, especially for those whose exports are oriented towards oil and fuels. Chart 3 shows the contribution of each country to the overall 2.5 trillion US$ decline in world trade of 2015-2016.

Chart 3 - Countries shares in the trade collapse of 2015-2016
Most countries registered a trade decline with the exception of Kuwait, Thailand and Vietnam and a number of smaller countries. The largest declines are those of the largest economies, with the European Union’s exports decreasing the most in value terms, China second and the United States third. Also of significance was the drop in the value of exports in a number of oil exporting countries such as Russia, Canada, Norway and most of the countries in the West Asia and North Africa regions. Export earnings also declined substantially in the cases of India, Japan, Korea and Singapore.

Better times ahead?

As 2017 draws to a close, the most recent statistics show that the dismal performance of international trade over the last 8 years may finally have reached an end. Driven by the cyclical upturn of the global economy, international trade is expected to increase substantially in 2017. Chart 4 shows trade trends for the three largest economies (China, the European Union and the United States) by illustrating the monthly percentage change in the value of trade (measured as imports plus exports) vis-à-vis the same month in the previous year. While displaying the sharp declines in the value of trade in 2015 and early 2016, Chart 4 also shows a recovery in all three economies from the fourth quarter of 2016. Although trade growth in the first quarter of 2017 was not particularly promising, trade growth picked up substantially in the second and third quarters of 2017. Trade is expected to grow further in the fourth quarter with growth rates of around 10 percent relative to the same period of 2016. Overall, it is likely that in 2017 trade will outpace output growth. Global output growth is expected to be around 3.6 percentage points and trade growth around 4 percentage points. Importantly, the trade growth of 2017 appears not to be localized but widespread across both developed and emerging economies.

A cautionary tale

Although international trade fared substantially better in 2017 than in the previous two years, it is still too early to gauge whether this positive trend will continue in the foreseeable future. There is still significant uncertainty affecting the global economy, and there are numerous elements which may negatively affect international trade in the coming years. Moreover, one statistical consideration is that the rebound that clearly shows in the data for 2017 is largely driven by the dismal performance of the two previous years. The value of international trade for 2017 is still expected to be well below 2014, by at least 2 trillion US$. On a positive note, most forecasts indicate that global economic growth is expected to be sound in 2018, at about 3.5 percent, and trade growth should therefore follow suit, at least in volume terms.

Still, there are several reasons to be cautious. Primarily, trade growth in value terms (and therefore export earnings) may be dampened by stagnating commodity prices. This will be problematic for a large number of developing countries, especially in Africa. The strong increase of commodity prices in 2017 is not generally expected to continue in 2018. The IMF forecasts its commodity price index to fall by 0.1 per cent in 2018. Second, monetary policy is expected to tighten in many developed countries. This may have a negative effect on demand in developed countries while increasing the value of the US dollar, and therefore reducing the value of international trade. Moreover, international trade could also face increasing headwinds from...
policy factors. In particular, the debate on the uses and abuses of trade policy has grown more prominent over the last few years. And there is a real risk that the ongoing protectionist rhetoric will eventually materialize into restrictive policies. Chart 5 shows resurgence in the use of trade defence measures in the form of anti-dumping investigations in 2016. Developing countries were particularly active in the use of WTO dispute settlement mechanisms, with about 220 cases initiated in 2016. In 2015 the number of cases was about 160. Anti-dumping measures initiated by developed countries also were on the rise. About 80 investigations were initiated 2016, in contrast to about 50 in 2015. The use of anti-dumping measures is expected to have remained strong during 2017.

Overall, it is still unclear whether 2018 will see a continuation of the positive trends of 2017, or whether international trade will return to the weakness of the recent past. Definitively, in the coming years much of the fortune of international trade will depend on whether the skepticism over the benefit of trade and international collaboration will persist. As 2017 draws to a close, there are conflicting signals. While many of the factors that negatively influenced the debate on international trade in the past will likely persist, there are also a number of initiatives that could bring some momentum to international trade and multilateral cooperation.

The main reason to be pessimistic about the future of international trade is that the global trade regime has become increasingly unpopular in some countries. Moreover, the difficulties facing international trade are also evident from the outcome of the recent WTO ministerial. Finally, there are signs of mounting tensions about the persistence of trade imbalances and on the fairness of export promotion practices among the major economies. More in general, a number of governments find it increasingly difficult to combine their domestic agenda with international commitments. In this context, the present difficulties of the multilateral trading system may bring reforms possibly by reducing its scope. This will likely have negative implications for international trade and international cooperation.

Still, there are also reasons to be optimistic about the future of international trade and international cooperation. The scope for further economic interdependence is still strong for many countries, trade costs have substantially declined in many parts of the world and there is still a large potential for an increase in economic integration within South Asia, Latin America and especially within Sub-Saharan Africa. Moreover, broader approaches such as the One Belt One Road initiative or a possible revival of a Trans-Pacific Partnership agreement without the United States will contribute to economic integration. Although there is going to be lot of uncertainty surrounding the evolution of world trade in the coming years, one thing is certain: for trade and international cooperation to resume and to succeed, governments need to advance an economic agenda that is not only outward looking but also fair and equitable.
1. TRENDS IN INTERNATIONAL TRADE

International trade largely relates to physical goods. Although increasing, trade in services accounts for a much lower share. In 2016 world trade in goods was valued at about $16 trillion, while trade in services accounted for almost $5 trillion. Trade in both goods and services promptly rebounded to reach pre-crisis levels by 2011. The value of international trade in goods declined substantially in 2015 and continued to decline in 2016. Trade in services has been more resilient.

![Figure 1](source: UNCTAD secretariat calculations based on COMTRADE data.)

International trade can be broadly distinguished between trade in goods (merchandise) and services. The bulk of international trade concerns physical goods, while services account for a much lower share. World trade in goods has increased dramatically over the last decade, rising from about $10 trillion in 2005 to more than $18.5 trillion in 2014 to then fall to about $16 trillion in 2016. Trade in services greatly increased between 2005 and 2016 (from about $2.5 trillion to almost $5 trillion). The value of international trade of both goods and services declined substantially in 2015 and 2016 (figure 1a). Following the strong rebound in 2010 and 2011, export growth rates (in current dollars) are now at much lower level than in the pre-crisis period and were negative both in 2016 and 2016 for developing and developed countries (figure 1b).
Since 2005 the volume of international trade of goods has increased dramatically. However, growth has slowed down significantly in the last few years and virtually stalled in 2015. Volume growth resumed in 2016 but on a subdued rate. During 2015 and 2016, volumes of trade fell for many countries both in terms of imports and exports.

The volume of international trade in goods has increased dramatically in the last 10 years (Figure 2a). In spite of the financial crisis of 2009, developing countries as a group have almost doubled the volumes of trade in goods since 2009. While import volumes have been growing relatively more than export volumes for developing countries, the opposite has happened in regard to developed countries. The relatively larger increase in the volumes of imports can be explained by the increase in consumer demand in developing countries. Growth in trade volumes has slowed down substantially in the last few years, especially in regard to developing countries. In 2015, volume growth was negative in the case of China, both in relation to imports and exports (Figure 2b). Volume growth was positive in 2016, but only marginally so for most countries. Moreover, volume growth rates in developed countries have generally outperformed those of developing countries in the last two years.
The value of trade in goods is virtually equal in developing and developed countries. On the other hand, about two thirds of trade in services originated from developed countries. BRICS account for an important share of trade in goods and services. LDCs continue to account for a very small share in overall trade. In 2016 the value of world trade has declined both for developed and developing countries.

Developed countries' relative importance as suppliers in international markets is declining. Still, they account for about half of the value of exports of goods and about two thirds of exports of services. In 2016 developed countries' exports of goods was about $8 trillion (figure 3a), while that of services added up to about $3 trillion (figure 3b). In 2016, developing countries’ trade sum up to about $8 trillion in regard to goods and about $2 trillion in regard to services. In 2016 BRICS exported about $3 trillion in goods and about $500 billion in services. LDCs’ contribution to world trade remains minimal, although some increases in exports and imports of these countries have been recorded over the past decade.
A very large part of world trade is clustered around three regions: North America, Europe and East Asia. Other regions’ contribution to world trade is much lower. In 2016 the value of international trade flows continued to decline in all regions but for South Asia and Oceania. Trade flows declined the most in relation to the transition economies.

The trade network map (Figure 4) illustrates the importance of trade between and within regions, as well as the trade decline between 2015 and 2016. The width of the corresponding lines reflects the magnitude of trade in 2016, whereas the size of the nodes reflects total trade for each of the regions. The colours of both the lines and the nodes reflect percentage drops in the value of trade between 2015 and 2016, darker colours indicating greater declines. Increases are in greens. As of 2016, world trade continues to be largely concentrated in three main regions: North America, East Asia and Europe, with a large share of trade being intraregional. In 2016, trade declined in regard to most regions and bilateral trade flows. The value of trade declined substantially more commodity in oil exporting regions as well as in sub-Saharan Africa. The declines in international trade flows were relatively less severe for Europe.
International trade in goods is largely composed of trade flows involving developed countries and the East Asian region. Trade among other developing country regions is of much lower magnitude, with some exceptions relating to trade in primary products. In 2016, the value of trade declined for most of regional flows, especially in regard to natural resources.

Source: UNCTAD secretariat calculations based on COMTRADE data.

Table 1 reports traded value in dollars in 2016; percentage change between 2015 and 2016 is shown in table 1b. For reference, table 1c reports values for 2005. The number given in the top left of each cell shows the overall trade, the upper right figure in each cell depicts the overall traded value in agriculture, the bottom left is natural resources and bottom right, manufactures. Importing regions are on the left and exporting on top of the tables. Discrepancies are due to uncategorized trade.
International trade in goods is increasingly linked to imports and exports of developing countries. South–South trade has promptly rebounded from pre-crisis levels, and reached almost $5.5 trillion in 2014. After 2 years of decline, South-South trade stands at about 4.4 trillion US$ in 2016. Among the widespread trade downturn of 2015 and 2016, developing countries’ trade with China has been more resilient, showing increases in most cases.

Source: UNCTAD secretariat calculations based on COMTRADE data.

The increase in world trade during the last decade was largely driven by the rise of trade between developing countries (South–South) (figure 5a). By 2014, the value of South–South trade had reached almost $5.5 trillion, a magnitude close to that of trade between developed countries (North–North). The substantial decline in trade of 2015 and 2016 hit developing countries relatively more than developed countries. Figure 5b denotes the contribution of South–South trade over total trade and further decomposes it among intraregional flows related to China and other South–South trade. The significance of South–South trade flows for developing countries is evident when considering that in recent years, they represented more than half the trade of developing country regions (imports and exports). South–South trade share varies by region, from about 40 per cent in Latin America to almost 70 per cent in South Asia and East Asia. Although a certain proportion of South–South trade encompasses intraregional flows, an important part involves trade with China. Since 2005, China has become an increasingly important partner for all other developing country regions.
The decline in trade between 2014 and 2015 is reflected in the largest bilateral flows to a varying degree. Due to low commodity prices, the largest percentage declines are related to natural resources. Substantially lower declines are recorded in regard to agricultural and manufacturing trade flows. Still, not all the largest bilateral trade flows declined. Notably, intra-EU trade increased both for agriculture and manufacturing.

Table 2
Changes in the value of the largest bilateral trade flows between 2015 and 2016, by product group

<table>
<thead>
<tr>
<th>Agriculture</th>
<th>Exporter</th>
<th>Importer</th>
<th>Change 2015 vs 2016 (%)</th>
<th>Value in 2016 (US$ Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>Europe</td>
<td>-9%</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>China</td>
<td>-4%</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>Canada</td>
<td>-3%</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>European Union</td>
<td>-2%</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>Mexico</td>
<td>-1%</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>China</td>
<td>0%</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>United States</td>
<td>1%</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>European Union</td>
<td>European Union</td>
<td>3%</td>
<td>351</td>
<td></td>
</tr>
<tr>
<td>European Union</td>
<td>United States</td>
<td>5%</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>United States</td>
<td>8%</td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Natural Resources</th>
<th>Exporter</th>
<th>Importer</th>
<th>Change 2015 vs 2016 (%)</th>
<th>Value in 2016 (US$ Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norway</td>
<td>European Union</td>
<td>-27%</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>Japan</td>
<td>-27%</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>United States</td>
<td>-22%</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>Canada</td>
<td>-20%</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Algeria</td>
<td>European Union</td>
<td>-19%</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>European Union</td>
<td>European Union</td>
<td>-15%</td>
<td>183</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>Japan</td>
<td>-14%</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Russia</td>
<td>European Union</td>
<td>-9%</td>
<td>105</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>Mexico</td>
<td>-2%</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>China</td>
<td>2%</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manufacturing</th>
<th>Exporter</th>
<th>Importer</th>
<th>Change 2015 vs 2016 (%)</th>
<th>Value in 2016 (US$ Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>European Union</td>
<td>-8%</td>
<td>288</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>Hong Kong S.A.R.</td>
<td>-6%</td>
<td>249</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>United States</td>
<td>-4%</td>
<td>490</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>Canada</td>
<td>-4%</td>
<td>173</td>
<td></td>
</tr>
<tr>
<td>European Union</td>
<td>United States</td>
<td>-3%</td>
<td>371</td>
<td></td>
</tr>
<tr>
<td>European Union</td>
<td>China</td>
<td>-2%</td>
<td>191</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>United States</td>
<td>-2%</td>
<td>183</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>United States</td>
<td>1%</td>
<td>251</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>European Union</td>
<td>2%</td>
<td>417</td>
<td></td>
</tr>
<tr>
<td>European Union</td>
<td>European Union</td>
<td>3%</td>
<td>2320</td>
<td></td>
</tr>
</tbody>
</table>

Source: UNCTAD secretariat calculations based on COMTRADE data.

The table reports the percentage changes between 2015 and 2016, and the value in 2016, of the 10 largest bilateral flows in each of the three product groupings.
Although they experienced a consistent decline in the last two years, intermediate products still represent a substantial part of world trade (about $7 trillion in 2016). During 2016 trade in primary products continued to decline due to lower commodity prices and now stands at about $2.2 trillion. Trade in consumer and capital products was more resilient, falling only slightly in 2016. These flows were valued at about $4 trillion and $2.5 trillion, respectively. Differentiated by broad category, world trade in goods is largely comprised of manufacturing products (about $12.5 trillion). Trade in agriculture, although relatively small, was more resilient to the continuing trade downturn of 2016.

International trade in goods can be differentiated by stage of processing, depending on their intended use along the production chain. Goods are therefore classified as primary, intermediates, consumer and capital (the latter comprising machinery used for the production of other goods). Goods can also be differentiated by broad category, including natural resources, agriculture and manufacturing. With regard to the stage of processing, although there was a contraction in 2016, intermediate products continued to make up the bulk of world trade (Figure 6a). Trade in consumer and capital products represent another important share of world trade. In 2016, the value of trade in these two categories declined, but only minimally so. Trade in primary products was greatly affected by the 2015 trade downturn. Their decline continued in 2016. Trade in manufacturing product also declined in 2016, with a value of about $12 trillion in 2016. During 2016 the value of trade in agricultural products was somewhat more resilient than the rest of world trade (Figure 6b).
Trade related to developed countries remains an important part of international trade, especially in relation to imports. Participation in international trade varies significantly among developing regions. BRICS countries account for an important part of developing countries' trade, especially with respect to trade in intermediates and exports of consumer products. The participation of other developing country regions in world trade, both as importers and exporters, is more limited.

Figure 7
Values of world trade in goods by region, stage of processing and broad category

Developed countries account for the bulk of world trade, both in terms of goods differentiated by stage of processing and broad category (figure 7a, b). Besides other developing country regions, a significant amount of trade is linked to BRICS, especially in relation to the trade of intermediates and manufacturing. They also tend to import few consumer goods while exporting a relatively large share. Developing countries tend to export more natural resources than they import, unlike developed countries. LDCs only represent a small share in all types of goods, with a larger share in the exports of primary products and the imports of manufacturing goods.

Source: UNCTAD secretariat calculations based on COMTRADE data.
With almost $2 trillion traded, chemicals represent a substantial share of world trade in goods. Other significant sectors include machinery, communications equipment and motor vehicles. In 2016, the value of international trade shrank in many sectors, but more so in the energy categories (oil, gas, coal and petroleum products). During the last decade, export market shares have moved to the advantage of developing countries in all sectors and more so in regard to communications equipment, non-metallic minerals and machinery.

Figure 8b displays the value of world trade in 25 categories of goods. In terms of value, a large amount of world trade relates to energy products (oil, gas, coal and petroleum products), chemicals, machinery, communications equipment and motor vehicles. In contrast, light manufacturing sectors, including textiles, apparel and tanning, comprised a much smaller share of world trade. Agricultural sectors – which include food, vegetable and animal products, as well as oils and fats, and tobacco and beverages – accounted for a total of over $1.5 trillion of trade flows, or less than 10 per cent of international trade. The value of trade continued to fell in 2016 in most sectors, especially in energy products. During the last decade developing countries' presence in international markets has increased substantially compared with developed countries. Their export market share has increased across all sectors (figure 8b), and in particular in machinery, non-metallic minerals and communications equipment.
World exports of services are mainly dominated by travel, transportation, and business-related services. Trade in services greatly increased during the last decade across all categories of services. Trade in most categories of services has been relatively reliant upon the recent trade downturn. Between 2015 and 2016 the only significant decline in the value of services trade was related to other business services. On the other hand, the travel sector increased significantly in 2016, reaching about 1.4 trillion US$. Although developing countries increased their share of trade in services during the last decade, developed countries remain the main exporters in all sectors except construction. Developing countries are also becoming important suppliers to international markets with regard to travel and transportation as well as computer and information services.

With regard to services, travel and other business services represent the largest sectors, amounting to more than $1 trillion each in 2016 (Figure 9a). Other important sectors include transport, telecommunications, computing and finance-related services. Since 2005, the value of trade has increased in all sectors. With exception of transport and other business services, trade in most of the other categories of services has been resilient to the trade downturn of 2016. Services related to travel have outperformed many other sectors. Figure 9b depicts the share of global exports of different service categories pertaining to developed and developing countries, and their change between 2005 and 2016. Although developed countries still account for the largest part of exports of services, the export market share has been shifting to the advantage of developing countries in most sectors (Figure 9b). One exception has been cultural and recreational services for which market share did not change.

Figure 9
Market shares of trade in services of developing and developed countries by sector

(a) Trade in Services, by Sector

(b) Export Market Share (2016)

Source: UNCTAD secretariat calculations based on COMTRADE data.
2. TRADE INDICATORS

The following section presents a series of trade indicators where the magnitude of the indicator is represented by the shading of the country on the world map. Data for goods come from UNCTADstat and COMTRADE, whereas data on services come from the United Nations Service Trade Database.

For a substantial number of developing countries, gross domestic product (GDP) is closely dependent on the exports of goods and services to foreign markets. This is particularly true of many East Asian economies, Eastern European countries and a number of African countries as well as Canada and Mexico.

Index 1: Import and export propensity

a) Imports of goods and services over gross domestic product

![Import Propensity Map](image1)

- **Very high propensity (more than 50%)**
- **High propensity (30% to 50%)**
- **Moderate propensity (20% to 30%)**
- **Low propensity (10% to 20%)**
- **Very low propensity (less than 10%)**
- **No data**

b) Exports of goods and services over gross domestic product

![Export Propensity Map](image2)

- **Very high propensity (more than 50%)**
- **High propensity (30% to 50%)**
- **Moderate propensity (20% to 30%)**
- **Low propensity (10% to 20%)**
- **Very low propensity (less than 10%)**
- **No data**

Source: UNCTAD secretariat calculations based on COMTRADE data.

Import and export propensity are computed as the value of imports or exports divided by the current GDP. The import propensity expresses the total income spent on imports. The export propensity shows the overall degree of reliance of domestic producers on foreign markets. Higher values imply greater dependence on foreign markets.
World trade is largely unbalanced. China and Germany maintain the largest surplus positions. Primarily the United States and the United Kingdom of Great Britain and Northern Ireland, but also a number of developing and developed countries, maintain large deficit positions. Even though these imbalances are sometimes large in level, they often tend to be low relative to GDP. In contrast, the trade imbalances of many countries in Africa and South Asia tend to be large relative to their GDP.

Index 2: Trade balances

a) Trade balances of goods and services as a percentage of overall world imbalances

b) Trade balances of goods and services as a percentage of gross domestic product

Foreign trade balances (exports minus imports of goods and services) as a percentage of total world imbalances are computed as each country’s share of total imbalances in the world. Negative values denote countries in deficit, while positive values denote countries with a surplus. It indicates how world imbalances are distributed across countries. The foreign trade balance-to-GDP ratio is the ratio of the foreign trade balance to GDP. It indicates how large trade imbalances are relative to the size of the economy. It is negative if a country imports more than it exports, and more so if GDP is relatively small. It is around 0 if the exported value is about the same as the imported value. It is positive if exports are larger than imports.
Although many countries are striving to diversify their exports, agriculture and natural resources still represent a large share of export baskets of many developing countries. Commodity dependence is more evident for energy-exporting countries in the Middle East, raw material suppliers in Africa as well as for Latin American countries, where agriculture still represents a large share of total exports. Dependence indices have declined due to the fall of prices of commodities.

**Index 3: Commodity export dependence**

**a) Agricultural and natural resources dependence index**

![Map showing agricultural and natural resources dependence index]

- **Highest dependence (more than 50%)**
- **High dependence (30% to 50%)**
- **Moderate dependence (20% to 30%)**
- **Low dependence (10% to 20%)**
- **Lowest dependence (less than 10%)**
- **No data**

**b) Change in agricultural and natural resources dependence index, 2012–2016**

![Map showing change in agricultural and natural resources dependence index]

- **Very high increase (more than 25%)**
- **High increase (5% to 25%)**
- **Low change (-5% to 5%)**
- **High decrease (5% to 25%)**
- **Very high decrease (more than 25%)**
- **No data**

*Source: UNCTAD secretariat calculations based on COMTRADE data.*

The commodity dependence index is computed as the share of the value of exports in primary products consisting of agricultural goods and natural resources over the total value of exports. It varies from 0 to 100. High dependence implies more exposure to shocks in the prices of natural resources and agricultural commodities.
Geography, demographics and policy choices result in deficit or surplus positions in terms of agricultural trade. In general, countries in Latin America, East Africa and South Asia are net food exporters, while most of the rest of Asia and Africa remain net food importers. Most developed countries, as well as many developing countries (East and South Asia, and East Africa) are dependent on imported energy. In contrast, West and Central Asia, as well as most of Africa and Latin America, are net energy exporters.

**Index 4: Food and energy dependence index**

**a) Food dependence index**

Food dependence is computed as a country’s exports of agricultural products minus its imports of agricultural products. This is then normalized by dividing it by its agricultural trade (imports plus exports). The index varies between -1 and 1, with positive values meaning that the country exports more agricultural products than it imports. The main component of the energy dependence index is computed as a country’s exports of energy products minus its imports. This is then normalized by dividing it by its trade in energy products (imports plus exports). The index varies between -1 and 1, with positive values meaning that the country exports more energy products than it imports.

**b) Energy dependence index**

Source: UNCTAD secretariat calculations based on COMTRADE data.
Although many developing countries seek to diversify their exports, many do not succeed. Among developing countries, only a few emerging economies have reached levels of diversification similar to those of developed countries. African countries remain vulnerable to external shocks, as their exports are generally concentrated in a few products exported to a few destinations.

**Index 5: Export diversification**

a) Export diversification index, by product

![Map showing export diversification index by product](image)

b) Export diversification index, by destination

![Map showing export diversification index by destination](image)

*Source: UNCTAD secretariat calculations based on COMTRADE data.*

The Hirschmann–Herfindahl index is a measure of the diversification of exports with lower values reflecting higher diversification. It indicates the degree to which a country’s exports are dispersed across different destinations or different goods (at the HS 6-digit level). Low diversification is interpreted as an indication of vulnerability since the exporter is more exposed to economic shocks as they are limited to a small number of export markets or goods.
Many developing countries have been seeking to diversify their exports over the past years. Although some are still not very diversified, there is a tendency in many countries to diversify into new products and destinations. Some developed countries have seen a decline in terms of product and destination diversification.

**Index 6: Changes in export diversification**

a) Changes between 2012 and 2016, by product

![Map showing changes in export diversification by product between 2012 and 2016.]

b) Changes between 2012 and 2016, by destination

![Map showing changes in export diversification by destination between 2012 and 2016.]

Source: UNCTAD secretariat calculations based on COMTRADE data.

The export diversification change reflects whether countries are becoming more or less diversified. Many African countries were more diversified in 2016 than in 2011, whether in terms of products or both products and destinations. In North America and Europe the trend went in the opposite way.
Since 2012, with the relevant exception of countries whose exports are largely concentrated in energy products, the exports of goods and services have increased for a large number of countries, especially in East Africa, Central America and East Asia. Between 2012 and 2016, many East African and East Asian countries also increased their competitiveness with their key trading partners.

**Index 7: Export performance and export competitiveness**

a) Export growth in goods and services, 2012–2016


The growth rate of exports is calculated as the percentage change of the value of exports between two periods. It indicates the progress of an economy in expanding economic activity into international markets. Negative values indicate a contraction in the value of exports, while positive values indicate an increase in export earnings. Export competitiveness reflects the development of a country’s exports relative to its top 20 trading partners. Export competitiveness is measured as the ratio of a country’s market share in the reference group in 2016 over that in 2012. Positive values indicate that the country is becoming more competitive with respect to its partners.
In comparison to countries with similar levels of GDP per capita, Australia, North and South American countries and some African countries tend to export goods that are less sophisticated. Europe and Asia tend to export more sophisticated products, whereas the situation is more heterogeneous for Africa. In terms of change, many developing countries exports have become less sophisticated over the past years.

**Index 8: Export sophistication and the export sophistication gap**

**a) Export sophistication gap**

![Map showing export sophistication gap](image)

**b) Change in the export sophistication gap, 2012–2016**

![Map showing change in export sophistication gap](image)

Export sophistication is measured by the EXPY index. The EXPY can be summarized as the per capita GDP as predicted by the composition of the export basket. Countries with a higher EXPY are those that export goods that are more sophisticated (i.e. generally exported by countries with high GDP per capita). Since the EXPY and GDP per capita are positively correlated by construction, it is also interesting to see how a country’s EXPY compares with that of countries at similar levels of GDP per capita. This is summarized in the export sophistication gap, which is computed econometrically by weighted regression. A positive gap implies an export structure that is more sophisticated than the country’s GDP per capita would predict. Conversely, a negative gap implies an export structure that is more typical of that of countries at a lower level of development. This index only takes goods into account.
Overall, the export performance of developed and developing countries in East Asia has been above average since 2005, and even higher since 2012. Some African countries have also performed relatively well, especially in East and Southern Africa. On the other hand, Latin American export performance has tended to be relatively lower, especially since 2012.

**Index 9: Overall export performance**

a) Change in the export performance index, 2012–2016

![Map showing export performance index changes, 2012–2016](image1)

b) Change in the export performance index, 2005–2016

![Map showing export performance index changes, 2005–2016](image2)

Source: UNCTAD secretariat calculations based on COMTRADE data.

The export performance index is computed simply by assembling four indicators, namely export growth of goods and services, and the various changes of export diversification, export competitiveness and the export sophistication gap. For each indicator, a regression is run to predict the expected level of performance of a country considering its level of GDP per capita. Then the difference between this level and the country’s actual level is computed. Countries are then ranked for each indicator, and a weighted average of the ranks of each indicator is taken in order to produce an overall rank, with a weight of 0.5 for the export growth of goods and services, 0.25 for export competitiveness, 0.125 for export diversification and 0.125 for the export sophistication gap.