UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMEN

## KEY STATISTICS AND TRENDSin International Trade2014



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### NOTE

*Key Statistics and Trends in International Trade 2014* is a second annual edition of the study initiated in 2013. It is a product of the Trade Analysis Branch (TAB), Division on International Trade in Goods and Services, and Commodities (DITC), UNCTAD Secretariat. This study is part of a larger effort by UNCTAD to analyze traderelated issues of particular importance to developing countries, as requested by the Doha Mandate of UNCTAD XIII. This study was prepared by Alessandro Nicita and Alain McLaren.

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### **OVERVIEW**

Although world trade quickly recovered swiftly from the effects of the global economic crisis, it has grown only modestly since 2011. From 2011 to 2013 world trade grew at a rate of about 2 per cent per year, notably below the growth rate of more than 5 per cent per year observed in the pre-crisis period. Between 2011 and 2013 world trade in merchandise goods increased by close to half a trillion US\$ to reach around US\$ 18.8 trillion in 2013. Trade in services increased from approximately US\$ 4.3 to 4.7 trillion during the same period. The modest increase in the value of world trade is owing to a combination of sluggish import demand in many countries, alongside lower commodity prices. In practice, while most international trade flows are now generally larger than their pre-crisis levels of 2008, the increase in world trade since 2011 has been relatively limited and almost exclusively driven by increases in import demand from the East Asian region.

As of 2013 developed countries still remain the main players in international trade accounting for about half of the value of world trade in goods and about two thirds of the value of trade in services. During the past few years developing countries have continued their integration into the world economy although at a typically slower pace and to a diverse extent. On the one hand, East Asian countries have continued to outperform many other developing countries in terms of export and import growth. On the other hand, recent years have witnessed a decline in international trade for a number of Latin American and especially Sub-Saharan African countries.

Despite having greatly increased during the last decade, trade amongst developing countries (South-South) has also stagnated since 2011. South-South trade in goods for 2013 was valued at circa US\$ 5 trillion. South-South trade is largely linked to East Asian economies. In 2013 more than 75 per cent of South-South trade was shipped to or from countries in the East Asian region. The diverging degree of international integration of East Asia vis-à-vis other developing regions is also reflected in levels of intra-regional trade. Whereas almost 50 per cent of East Asian trade occurs within the region, intra-regional trade is of much lower significance for Latin America and the Transition Economies (about 20 per cent), as well as remaining developing regions where this percentage falls to around 10 per cent or less. In addition, with the exception of East Asian countries, since 2011 intra-regional trade has either not increased to any extent or not as much as extra-regional trade.

With regard to specific economic sectors, fuels (at about US\$ 3 trillion in 2013) and chemicals (at about US\$ 2 trillion) continue to represent the largest product categories in terms of the value of trade. Since 2011 trade flows in many commodity related sectors have declined, while they have increased in manufacturing sectors such as motor vehicles, machineries and electronics. Trade in agricultural products has remained roughly stable. In the case of services, most sectors have continued to register significant rates of growth, with transportation, travel and business services reaching values of about US\$ 1 trillion in 2013.

### Some stylized facts:

- Between 2011 and 2013 world trade increased at a substantially lower rate than during the pre-crisis period. Although also slowing, growth of trade in services was relatively higher than trade in goods. As of 2013 services represent about 20 per cent of international trade.
- Developing countries have continued to gain market share in international trade, although this trend has slowed down significantly in the last few years. Although increasing, developing countries' market share of trade in services remains relatively low.
- Developing countries' trade performance has been highly varied. In general, East Asian countries have remained the highest performers, while Sub-Saharan African countries have performed least well. Nonetheless, wide differences exist among countries within the same geographic region.

- South-South trade is largely fuelled by East Asian economies. For many developing countries, especially in Africa, integration in international and regional markets remains limited and has largely stalled since 2011.
- Since 2011 trade flows in most commodity related sectors have declined, while they have increased in manufacturing sectors. Agricultural trade has remained substantially flat.
- Most service sectors have continued to register significant rates of growth, with transportation, travel and business services reaching values of about US\$ 1 trillion per year.
- Export diversification continues to be a challenge. Many developing countries, especially in Africa, still rely largely on a few categories of products exported to a limited number of countries.
- Food security remains important for many East Asian and African countries. Similarly, energy dependence is an increasingly significant issue for many developing countries.
- Although world trade imbalances largely concern developed and emerging countries, trade imbalances as a percentage of GDP are also fairly high for many Sub-Saharan African countries.

The report is organized in four parts. The first section presents broad statistics on international trade. The second part depicts statistics on international trade disaggregated by broad product group, economic sector and stage of processing. The third section displays statistics related to bilateral and regional trade flows. The final segment exhibits maps depicting several commonly used indices related to international trade.

### **1. OVERALL TRENDS IN INTERNATIONAL TRADE**

International trade largely relates to physical goods. Although increasing, trade in services accounts for a much lower share. As of 2013 world trade in goods has been valued at more than US\$18.5 trillion, while trade in services has accounted for almost US\$5 trillion. Trade in both goods and services promptly rebounded to reach pre-crisis levels by 2011. Since then year-on-year growth rates have been considerably lower.



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 less than US\$ 8 trillion in 2003 to more than US\$ 18.5 trillion in 2013. Trade in services has also greatly increased between 2003 and 2013 (from about US\$ 2 trillion to about US\$ 4.7 trillion). As of 2013, the value of international trade of both goods and services has completely recovered from the dip in 2009, and largely surpassed pre-crisis levels (figure 1a). Following the strong rebound in 2010 and 2011, export growth rates have stabilized at lower levels (figure 1b). Developing countries' growth rates have tended to surpass those of developed countries in most years in the case of both goods and services.

Developed countries account for about half the value of global trade in goods and about two-thirds of trade in services. East Asia dominates developing country trade flows both in terms of magnitude and growth. Although increasing, other regions' participation in world trade is markedly more limited, especially in relation to the export of services.



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 2013 developed countries' imports of goods reached about US\$ 10 trillion, while that of services added up to US\$ 2.5 trillion (figure 2a). Total exports were of similar magnitude (figure 2b). An overwhelming portion of developing countries' trade relates to East Asia. In 2013 East Asia traded close to US\$ 4.5 trillion in goods, and around US\$ 800 billion in services. In other developing country regions, especially South Asia and Sub Saharan Africa, trade has been much lower. Nevertheless, increases in exports and imports of these regions have been recorded over the past decade, albeit from much lower starting points.

Since its earlier peak of 2008, trade has continued to grow, at times substantially, but also quite diversely across regions. While East Asian imports and exports have increased by 40 per cent compared to precrisis levels of 2008, Sub-Saharan Africa's trade has grown considerably less, especially with regard to exports of goods. Most of the increase in trade has been related to the strong rebound noted between 2009 and 2011. Since 2011 growth has been much more muted. Trade in services has generally outpaced trade in goods; however, growth rates differ significantly across regions.



Although international trade has surpassed its pre-crisis levels, it has grown at dissimilar rates across regions (figures 3a and 3b). While developed countries' trade has increased only minimally, developing countries have generally fared much better. Among developing country regions, East Asian trade (both imports and exports) has grown by the greatest extent, with an increase of 40 per cent or more between 2008 and 2013. On the other hand, Sub-Saharan African exports only increased by about 15 per cent in the case of goods and 22 per cent in that of services over the same period. The recent increase in world trade has mainly been attributed to the strong rebound achieved between 2009 and 2011. Since 2011 international trade has grown notably less, even declining in a number of cases. In particular, Sub-Saharan Africa's total exports were about 5 per cent lower in 2013 than in 2011.

## 2. INTERNATIONAL TRADE BY STAGE OF PROCESSING, BROAD CATEGORY AND SECTOR

Intermediate products represent the largest flow of world trade (about US\$7 trillion in 2013). Trade in primary products, although increasing, remains visibly lower (about US\$ 4 trillion). Differentiating by broad category, world trade in goods largely comprises manufacturing products (about US\$ 13 trillion), while the value of agricultural trade is appreciably lower (less than US\$ 2 trillion).



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, intermediate products make up the bulk of world trade. Their traded value increased from about US\$ 6.5 trillion in 2008 to about US\$ 7 trillion in 2013 (figure 4a). Trade in primary, consumer and capital products has also increased, but to a lesser extent. With a value of almost US\$ 13 trillion in 2013, trade in manufacturing goods holds a dominant position over trade in natural resources and agricultural products, both in terms of magnitude and growth (figure 4b). Since 2011, the value of international trade has increased in all categories, with the exception of in primary products, largely stemming from a downward trend in prices of many commodities.

World demand for intermediate, consumer and capital goods is still primarily met by developed countries' exports. Similarly, trade in both agriculture and manufacturing largely originaties from developed countries. In contrast, developing countries are the main suppliers meeting international demand for primary products and natural resources.



Export shares by developed and developing countries by stage of processing and broad category



Global demand for intermediate, consumer and capital goods is predominantly met by developed countries' exports (figure 5a). Similarly, trade in both agriculture and manufacturing largely originates from developed countries (figure 5b). However, the importance of developed countries as suppliers of world markets in these categories of products is on a declining trend. On the other hand, developing countries remain by a wide margin the main suppliers in international markets for primary products and natural resources. Developing countries' exports represent about two-thirds of international trade in primary products and about three-quarters of that in natural resources. Since 2008 developing countries' export shares have increased in all categories except primary products and natural resources.

Participation in international trade varies significantly among developing regions. East Asian countries account for a substantial part of developing countries' trade, especially with respect to exports of intermediates and manufacturing products. The participation of other developing country regions in world trade, both as importers and exporters, is much more limited, and largely confined to the supply of primary products.



Developed countries account for the bulk of world trade, both in terms of goods differentiated by stage of processing and broad category (figures 6a-6d). Among developing country regions, most trade is linked to East Asia, especially in relation to exports of intermediates. The value of trade in other developing country regions is substantially lower, with exports mostly dominated by primary products and natural resources.

With over US\$ 3 trillion traded, energy related goods (oil, gas, coal and petroleum products) represent a very substantial share of world trade in goods. Other significant sectors include chemicals, machineries, communication equipment and motor vehicles. Trade in services is dominated by transportation, travel and other business services.



Figures 7a and 7b display the value of world trade in 25 categories of goods and 11 categories of services. In terms of value, a large amount of world trade relates to energy products (oil, gas, coal and petroleum products). The value of trade is also substantial for chemicals, machineries, communication equipment and motor vehicles. The value of trade flows in energy products has typically increased since 2008, with oil, gas and coal reaching a value of over US\$ 2 trillion in 2013, with an additional US\$ 1 trillion in petroleum products. Trade in chemical products represented just under US\$ 2 trillion, while trade in machinery (comprising electrical, office and various machinery) made up to just over US\$ 3 trillion. In contrast, light manufacturing sectors including textiles, apparel and tanning, comprised a 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 around US\$ 1.5 trillion of trade flows, or less than 10 per cent of international trade. With regard to services, transportation, travel and other business services represent the largest sectors, amounting to more than US\$ 1 trillion each in 2013. Other important sectors include royalties and license fees, and finance related services. Since 2008 the value of trade has increased fairly steadily in all sectors of goods and services, the sole exception being basic metals.

Although developing countries have increased their share of trade in most sectors, international trade in goods is still largely fuelled by demand in developed countries. On the supply side, developed countries are the main exporters of motor vehicles and chemicals. Developing countries remain large suppliers to international markets with respect regard to energy products and light manufacturing.

### Figure 8

Market shares of trade in goods of developing and developed countries by sector



Figures 8a and 8b depict the share of global imports and exports of different product categories pertaining to developed and developing countries, and its change between 2008 and 2013. International demand and supply across categories of goods tend to be associated with a nation's level of development. With the exception of product categories pertaining to processing industries, world trade is still largely fuelled by demand in developed countries. In 2013 developed countries accounted for about 75 percent of global imports of apparel (down from about 80 per cent in 2008) and for about two-thirds of imports of a range of products including tanning, motor vehicles, food products, wood products and furniture, animal products, rubber and plastics and paper products and publishing. Developing countries, on the other hand, were major importers of mining and metal ores, communication equipment, electrical machinery and several agricultural products. On the supply side, developed countries' share in world markets declined in almost all sectors, but remained dominant in some large sectors such as motor vehicles (75 per cent), chemicals (70 per cent) and various machinery (65 per cent). Sectors where international markets are largely supplied by developing countries include oil, gas and coal, apparel, communication equipment, textiles, office machinery, oils and fats, and tanning.

World trade in services is largely dominated by developed countries both in terms of demand (imports) and supply (exports). Although somewhat increasing, developing countries' participation in international service markets remains fairly limited, especially on the supply side.



Figures 9a and 9b depict the share of global imports and exports of different service categories pertaining to developed and developing countries, and its change between 2008 and 2013. World trade in services is largely dominated by developed countries both in terms of demand and supply, especially in sectors including computer and information services, financial services, royalties and license fees and communication services. Although developing countries' importance as importers of services has increased in recent years, they nevertheless account for the largest share only for construction and transportation services. Turning to export market shares, these reveal that international markets are mainly supplied by developed countries (the single exception being construction services where the market share is more or less equally divided). For instance, developed countries account for over 95 percent of global exports of royalties and licence fees, and around 80 percent of financial and insurance services.

Patterns of trade growth have varied across product sectors, and between developed and developing countries. Developing nations have typically outperformed developed ones in terms of export growth of goods. Developed countries' exports have shrunk in a number of cases. Since 2011 there has been a decline in a number of sectors in both developing and developed countries.



Since 2008 growth rates of trade in goods have varied across sectors, as well as between developed and developing countries (figure 10a). With very few exceptions, growth in international demand has largely been met by developing countries' export growth. Developed countries' export growth in certain merchandise sectors has been considerably lower and in some cases negative. In more recent years (figure 10b) one can observe a contraction in exports in many sectors in both developing and developed countries. From 2011 to 2013 developing countries saw their exports of non-metallic minerals and communication equipment grow by more than 20 per cent, while oils and fats decreased by almost 20 per cent during the same period. While developing countries saw exports in 11 sectors grow by over 10 percent, this was only the case for a single sector in developed countries during the period 2011-2013.

Exports of services have been increasing in most sectors since 2008 in both developing and developed countries. Between 2008 and 2013 export growth in several sectors was higher for developed countries. Since 2011, however, developing countries' export growth has tended to be higher in most service sectors.



With respect to services, developing countries have seen their exports grow at a faster pace than those of developed countries. This was the case over the period 2008-2013 (figure 11a), but was even more pronounced over the period 2011-2013 (figure 11b). In both time periods, the fastest rates of growth of developing countries' exports were found in sectors such as cultural and recreational services, construction services, insurance services, computer and information services, other business services and travel. Between 2008 and 2013 there were several sectors where the exports of developed countries grew faster than those of developing countries, the fastest growing being cultural and recreational services. However, more recently, only exports of communication services as well as royalties and license fees grew faster in developed countries.

### **3. MERCHANDISE TRADE FLOWS BETWEEN/WITHIN DEVELOPED AND DEVELOPING COUNTRIES**

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 US\$ 5 trillion in 2013. Developing countries' exports basket is skewed towards primary products both in their exports towards the North and towards the South. By comparison, developed countries' export basket largely comprises intermediate products.



The increase in world trade between 2003 and 2013 has largely been driven by the rise of trade between developing countries (South–South) (figure 12a). By 2013 the value of South–South trade had reached about US\$ 5 trillion, a magnitude close to that of trade between developed countries (North–North). Of note is that in 2013 North-North trade had not fully recovered from its pre-crisis level of 2008. Trade between developed and developing countries (North-South and South-North) also increased substantially over the period, and represented a share of about 40 per cent of world trade in 2013, mainly comprising exports from developing nations towards the developed world. Intermediate products have represented the bulk of trade, except in the case of South-North flows (figure 12b). Primary products account for a sizeable share of South-South and South-North trade. Driven by demand in developed countries, consumer products represent an important share of North-North and South-North trade. Capital goods represent about 20 per cent of trade from developed to developing countries.

### 12

Trade in apparel, textiles and office machinery largely flows from developing to developed countries. Conversely, trade flows of motor vehicles, transport equipment and chemicals tend to be mainly both too and from developed countries.



The sectoral composition of trade reflects both the comparative advantage of countries in the production of specific products as well as patterns of demand by consumers and processing industries. Figures 13a and 13b depict the distribution of trade both between and within developed and developing country groups by product sector, illustrated as a percentage of world trade (figure 13a) and sectoral trade (13b). For example, it can be seen that trade in apparel, textiles and office machinery largely flows from developing countries (suppliers) to developed countries (consumers). In contrast, in the case of trade in motor vehicles, transport equipment and chemicals, developed countries act as both the main suppliers and consumers. South-South trade is a large component of trade in oils and fats, and communication equipment; the latter reflecting the presence of regional production networks in the sector.

Although South–South trade flows have increased over the past decade to represent more than half of trade of developing countries, East Asian trade accounts for both the largest and the fastest-growing share. With the exception of East Asia, the share of intra-regional trade in developing country regions is relatively modest.



Figure 14a portrays the contribution of South–South trade over total trade, and further decomposes it in terms of trade which is intraregional, related to East Asia and other South–South. The significance of South–South trade flows for developing countries is evident when considering that in 2013 they represented more than half of overall developing country trade (figure 14a). This share varies by region, ranging from above 40 per cent in Latin America and transition economies, to almost 70 per cent in South Asia and East Asia. Although a proportion of South–South trade encompasses intraregional flows, the largest part involves trade with the East Asian region. Since 2008 East Asia has become an increasingly important trading partner for all other developing country regions. The significant and growing relevance of East Asia in South–South trade is similarly evident when focusing on trade in intermediates (figure 14b). This indicates the presence of production networks not only within East Asia, but also connecting East Asia with other developing countries.

International trade in goods is largely composed of trade flows involving developed countries and the East Asian region. Trade amongst other developing country regions is of much lower magnitude, with some exceptions relating to trade in primary products. Growth rates and the composition of flows vary substantially between different importing and exporting regions.

| Composition of trac                        |           | ws in g | ooas,     | oy imp | porting                 | j and e | exporti       | ng reg | ions                          |      |            |      |                       |      |
|--|-----------|---------|-----------|--------|-------------------------|---------|---------------|--------|-------------------------------|------|------------|------|-----------------------|------|
| Importing ()) \ Exporting ( $ ightarrow$ ) | Developed |         | East Asia |        | Transition<br>Economies |         | Latin America |        | West Asia and<br>North Africa |      | South Asia |      | Sub-Saharan<br>Africa |      |
| Developed                                  | 5,928     |         | 1,964     |        | 474                     |         | 676           |        | 589                           |      | 166        |      | 173                   |      |
|  | -3%       | -1%     | 16%       | 2%     | 25%                     | 9%      | 12%           | -1%    | -5%                           | -1%  | 7%         | -11% | -20%                  | -20% |
| East Asia                                  | 1,558     |         | 2,036     |        | 114                     |         | 187           |        | 387                           |      | 106        |      | 132                   |      |
|  | 38%       | 2%      | 45%       | 10%    | 87%                     | 11%     | 68%           | 4%     | 33%                           | 4%   | 8%         | -18% | 109%                  | 21%  |
| Transition Economies                       | 289       |         | 120       |        | 150                     |         | 14            |        | 27                            |      | 8          |      | 3                     |      |
|  | 9%        | 8%      | 47%       | 16%    | 8%                      | -8%     | 15%           | 0%     | 40%                           | 25%  | 62%        | 2%   | -13%                  | -7%  |
| Latin America                              | 589       |         | 200       |        | 11                      |         | 177           |        | 19                            |      | 16         |      | 16                    |      |
|  | 26%       | 9%      | 16%       | -17%   | -8%                     | -17%    | -6%           | -18%   | 3%                            | -2%  | 66%        | 10%  | -5%                   | -24% |
| West Asia and North Africa                 | 522       |         | 210       |        | 56                      |         | 27            |        | 97                            |      | 85         |      | 10                    |      |
|  | 15%       | 29%     | 43%       | 48%    | -18%                    | 2%      | 13%           | -8%    | -18%                          | 9%   | 65%        | 85%  | -27%                  | 18%  |
| South Asia                                 | 150       |         | 180       |        | 13                      |         | 36            |        | 159                           |      | 38         |      | 38                    |      |
|  | 5%        | -17%    | 54%       | 0%     | -15%                    | 17%     | 158%          | 86%    | 45%                           | -5%  | 16%        | -1%  | 77%                   | 12%  |
| Sub-Saharan Africa                         | 133       |         | 99        |        | 3                       |         | 9             |        | 23                            |      | 27         |      | 54                    |      |
|  | 18%       | -10%    | 74%       | 15%    | -13%                    | 1%      | -28%          | -54%   | -12%                          | -13% | 76%        | 12%  | 28%                   | 8%   |

Table 1

The upper figure in each cell shows the traded value in 2013 in US\$ billions. The lower left figure in each cell depicts growth between 2008 and 2013, whereas the right one concerns the period from 2011 to 2013.

Table 1 presents the value of world trade in goods in 2013 across geographical regions as well as growth rates since 2008 and 2011. As of 2013 international trade still largely comprised flows involving developed and East Asian countries. Total trade flows originating from and directed towards these two groups of countries were valued at around 17 trillion. In 2013, although trade within Latin America and among transition economies was significant, trade relating to other developing country regions was limited. For example, international trade has been almost non-existent between transition economies and Sub-Saharan Africa, and very low between Latin America and Sub-Saharan Africa, and between South Asia and transition economies. Trade among developing country regions has been somewhat larger where energy products are an important component of flows (i.e. from West Asia and North Africa towards South Asia). With regard to the composition of trade, intermediates often represent the largest share of trade flows between the various country groups. Of note is that East Asian imports from all other developing country regions mainly include primary products, while East Asian exports mainly include intermediates. Moreover, Sub-Saharan African exports mostly comprise primary products, making up over 80 per cent of the region's exports to East Asia, South Asia and Latin America.

### 4. TRADE INDICATORS

During the period 2008-2013 exports of goods increased in most countries, both developed and developing. Exports increased by a relatively greater extent in East Asia and Southern Africa, rising by 50 per cent or more. Since 2011 exports have continued to increase in East Asia but not in many other developing countries. For a large number of Latin American and African countries, exports have contracted.

### **INDEX 1 - TRADE PERFORMANCE: EXPORT GROWTH IN GOODS**



Overall export growth from 2008 to 2013

The growth rate of exports is calculated as the percentage change of the value of exports between two time periods. It is indicative of an economy's progress in expanding its economic activity into international markets. Negative values reflect a contraction in the value of exports, while positive values correspond to an increase in export earnings.

Between 2008 and 2013 exports of services increased significantly, with growth rates of 50 per cent or more in many cases. With few exceptions, exports of services increased in countries in all regions during this period. Since 2011 exports of services have continued to increase in most countries, but have contracted in a number of Latin American and African countries.

### **INDEX 2 – TRADE PERFORMANCE: EXPORT GROWTH IN SERVICES**



Overall export growth from 2008 to 2013

Overall export growth from 2011 to 2013



The growth rate of exports is calculated as the percentage change of the value of exports between two time periods. It is indicative of an economy's progress in expanding economic activity into international markets. Negative values reflect a contraction in the value of exports, while positive values correspond to an increase in export earnings.

Export performance is often related to a nation's stage of development, as well as to the export performance of geographically proximate countries. Countries such as Mongolia, Cambodia, Paraguay, Nicaragua and Botswana have seen their exports grow significantly faster than their peers, both in terms of their geographical distance and similarity in levels of gross domestic product (GDP) per capita. Conversely, Argentina, Indonesia, Japan and Cote d'Ivoire's export growth has been lower relative to their peers.

### **INDEX 3 – EXPORT PERFORMANCE: EXPORT GROWTH RELATIVE TO PEERS**



Export growth gap vs closest countries (growth 2008-2013)

Export growth gap vs countries with similar levels of GDP per capita (growth 2008-2013)



Export growth relative to neighboring countries is computed as the difference between a country's rate of export growth in goods and services between 2008 and 2013 and that of its closest 10 countries. It measures the gap between a country's export growth vis-à-vis that of its geographically closest countries. A positive value indicates that the country's exports grew faster than its neighbors' exports. The indicator of export growth relative to countries with similar GDP per capita values is constructed in the same manner, except that it measures the export growth gap vis-à-vis countries with similar per capita GDP levels. A positive value indicates that the country has outperformed its peers, having experienced a larger increase in its exports than countries at a similar stage of economic development.

Export competitiveness is largely a matter of gains or losses in market share in key export markets. During the period from 2008 to 2013, many Asian countries improved their competitiveness compared to their key trading partners. On the other hand, declining export competitiveness was experienced by a large number of developed countries as well as developing countries in Africa, West Asia and South America. Similar patterns are observed with regard to export competitiveness in regional markets.

### **INDEX 4 – EXPORT PERFORMANCE: EXPORT COMPETITIVENESS**



Export competitiveness in top 20 markets (change 2008-2013)

### Export competitiveness in 5 closest markets (change 2008-2013)



Export competitiveness refers to the relative performance of a country's exports with reference to a group of countries of particular relevance (top 20 trading partners and 5 geographically closest countries). Export competitiveness is measured as the ratio of a country's market share within the reference group of countries in 2013 over that in 2008. A value above 1 indicates an increase in competitiveness of exports relative to foreign competitors (competitors assumed to be the countries in the reference group). A value below 1 indicates loss of competitiveness as foreign competitors gain market share in the reference group.

The existence of long-term trade relationships is important for achieving export-led growth. While the majority of bilateral export flows of many developed countries and China in 2008 were still observed in 2013, this was not the case for many African countries. Most African countries' bilateral export flows at the product level have been occasional, and were often not observed in more than a single year during the period 2008-2013.

### **INDEX 5 – EXPORT PERFORMANCE: SURVIVAL AND DURATION**



Export Persistence (2008-2013)

Export persistence is calculated as the number of export flows (bilateral, at the HS 6 digit level) in 2013 that were present in 2008 over the total number of flows in 2010. It traces how many flows survived from 2008 to 2013. Export persistence varies from 0 to 100, with smaller numbers indicating less stable export flows and hence the lack of long-term trade relationships.

Export duration is computed as the average years of occurrence of an export flow (bilateral, at the HS 6 digit level) between 2008 and 2013. The index depends on the time period of analysis, and hence in this case varies from 1 to 6. Lower values point to export flows being more occasional. An index of 1 implies that exports were not repeated in more than one year in the 6-year period. An index of 3 or more implies that export flows were observed in at least 3 out of 6 years.

Although many countries are striving to diversify their exports, agriculture and natural resources still represent a large share of export baskets of numerous developing countries. Commodity dependence is more evident in energy exporting countries in the Middle East, raw material suppliers in Africa as well as Latin American countries where agriculture still represents a large share of total exports.

# Agricultural dependence index (2013)

### **INDEX 6 – COMMODITY EXPORT DEPENDENCE: AGRICULTURE AND NATURAL RESOURCES**

### Natural resources dependence index (2013)



The commodity dependence index is computed as the share of the value of exports of agricultural goods or 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 or agricultural commodities.

Although many developing countries seek to diversify their exports, many do not succeed. Amongst developing countries, only a few emerging economies have reached levels of diversification similar to those of developed countries. African countries remain fairly vulnerable to external shocks as their exports tend to be concentrated in few products exported to few destinations.

### **INDEX 7 – EXPORT DIVERSIFICATION: BY PRODUCT AND DESTINATION**

Cverst diversification (0.25 to 1)
 Low diversification (0.10 to 0.25)
 Moderate diversification (0.10 to 0.25)
 Highest diversification (0.05 to 0.10)
 Highest diversification (0 to 0.02)
 No data

Export diversification index, by product (2013)

### Export diversification index, by destination (2013)



The Hirschmann-Herfindahl index is a measure of the diversification of exports. It signifies 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 a sign of vulnerability, since exporters are more exposed to economic shocks as they are limited to a small number of export markets or goods.

Changes in international prices, alongside new discoveries and means of exploitation of natural resources, can tilt countries' export basket towards commodities. The growing importance of commodities is evident not only in many developing countries but also in some developed countries. However, since 2011 a number of African countries have seen a decrease in their reliance on commodities.

### **INDEX 8 – RE-COMMODITIZATION AND DE-COMMODITIZATION**



Commoditization (changes 2011-2013)



The degree of re-commoditization is measured by comparing the share of commodities in total exports in two time periods. Negative values imply de-commoditization, meaning that the export basket is less biased towards commodities, whereas positive values imply an even stronger tendency to export commodities.

Geography, demographics and policy choices largely determine a country's deficit or surplus position with respect to agricultural trade. In general, countries in Latin America, East Africa and South Asia tend to be net food exporters, while most remaining Asian and African countries are net food importers. Since 2008 many African as well as Asian economies have experienced an increasing reliance on imported food products. Developed countries have maintained a much more neutral position.

### **INDEX 9 – FOOD DEPENDENCE**



Food dependence index (change 2008-2013)



Food dependence is estimated as a country's exports of agricultural products minus its imports of agricultural products. The resulting figure is then normalized by dividing it by the country's 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.

Change in a nation's food dependence is computed as the percentage change of the aforementioned index between 2008 and 2013. Positive values indicate that the country has become less dependent on imports of agricultural products.

Most developed countries as well as many developing countries (especially inEast and South Asia and East Africa) are dependent on imported energy. In contrast, countries in West and Central Asia as well as most African and Latin American countries are net energy exporters. Since 2008 East Asia's (for example, China's and Indonesia's) energy dependence has increased, while that of the United States has substantially decreased.

### **INDEX 10 – ENERGY DEPENDENCE**



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 the country's 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.

The change in a country's energy dependence is calculated as the percentage change of the aforesaid index between 2008 and 2013. Positive values indicate that the country has become less dependent on imported energy.

Exports per capita largely depend on a country's demographics and level of development. With the exception of energy exporting countries, developing countries' exports per capita are generally much lower than those of developed countries. For example, per capita exports of goods in many Sub-Saharan countries are less than US\$ 200 per year. Still, some East Asian and Latin American countries have export per capital levels close to those of developed countries. In the case of services, the differences between developed and developing countries are even more striking.

### **INDEX 11 - EXPORTS PER CAPITA**



Exports per capita are calculated as the total value of exports over total population. This figure represents the amount in dollars that a country exports per each of its citizens. Larger numbers imply deeper integration in with international markets.

For numerous developing countries, gross domestic product (GDP) is closely dependent on the export of goods to foreign markets. This is particulary true for many East Asian and Eastern European economies, for a number of African countries, as well as for Canada and Mexico. Exports of services represent a relatively large share of GDP in many developed countries, but also in India, some East Asian economies, and a number of African countries.

### **INDEX 12 – EXPORT PROPENSITY**

Exports of goods over GDP (2013)



### Exports of services over GDP (2013)



Export propensity is computed as the value of exports divided by gross domestic product (GDP). It reveals the overall degree of reliance of domestic producers on foreign markets. This ratio is expressed as a percentage and it ranges from 0 (with no exports) to 100 (with all domestic production exported). Higher values imply greater dependence on foreign markets.

For many developing countries, trade with other developing countries represents the largest share of their trade. The importance of developing countries as trading partners has generally been increasing since 2008, especially for countries in Africa and West Asia. Although East Asian and Latin American countries trade to a large extent with other developing countries, their share of South-South trade has not increased significantly since 2008.

### **INDEX 13 - TRADE DEPENDENCE ON DEVELOPING COUNTRIES**

Trade dependence on developing countries (2013)



Trade dependence on developing countries (change 2008-2013)



The indicator for trade dependence on developing countries is obtained by dividing a country's trade in goods (imports plus exports) with developing countries by its total trade in goods. It indicates the relative importance of developing countries as trading partners in a particular economy. It is expressed as a percentage and varies between 0 and 100. Values above 50 per cent imply that a country's trade is mainly with developing countries. Low values imply that trade is predominantly with developed countries. Changes in the trade share demonstrate how the relative importance of developing countries varies over time. Such differences are also expressed as a percentage, with positive values indicating an increase in the share of trade with developing countries.

The importance of regional markets remains limited for many developing countries. Trade flows with neighboring countries represent a substantial share of overall trade only for East Asian countries and a number of Latin American countries. Intra-regional trade is of minor importance for most African countries. Since 2008 trade dependence on regional markets has generally increased in East Asia and Southern Africa, while it has decreased in many Latin American countries and a substantial number of countries in Africa.

### **INDEX 14 - TRADE DEPENDENCE ON REGIONAL MARKETS**

Trade dependence on regional markets (2013)



Trade dependence on regional markets (change 2008-2013)



The indicator for trade dependence on regional markets is obtained by dividing a country's trade in goods (imports plus exports) with countries within the same geographic region by its overall trade in goods. For each developed country the reference region is represented by their standard regional group. The indicator serves to relay the relative importance of regional trade in an economy. It is expressed as a percentage and its value varies between 0 and 100. Values above 50 per cent imply that a country exports are mainly destined within the region. Low values imply that exports are predominantly destined to countries outside the region. Changes in the export share demonstrate how the relative importance of a country's regional exports varies over time. Changes are also expressed as a percentage, with positive values indicating an increase in the share of exports within the region.

A country's demand for goods or services is met by domestic and/or foreign producers. Imports play a relatively important role in satisfying domestic demand in East Asia, Eastern Europe and Southern Africa.

### **INDEX 15 – IMPORT PENETRATION**

Import penetration (Goods) (2013)



Import penetration (Services) (2013)



Import penetration ratios show the extent to which domestic demand for goods or services is met by foreign producers rather than domestic ones. Import penetration is calculated as the ratio of imports over domestic demand (measured as gross domestic product (GDP) adjusted for the foreign trade balance (difference between exports and imports)). Small values tend to reflect limited dependence on imports to satisfy domestic demand, whereas high values indicate that imports play a strong role in meeting domestic demand.

World trade is largely unbalanced. China, Germany and energy exporting countries maintain large surplus positions. IN contrast, the United States, alongside a number of developing and developed countries maintain large deficit positions. Even though these imbalances are in some cases of a large magnitude, they often tend to be notably lower when measured against gross domestic product (GDP). Conversely, many African countries' trade imbalances tend to be fairly large relative to their GDP.

### **INDEX 16 – TRADE IMBALANCES**

Trade balances as percentage of total world imbalances (2013)



Trade balance as percentage of GDP (2013)



Foreign trade balances (exports minus imports of goods and services) as a percentage of overall world imbalances are computed as each country's share of total trade imbalances. Negative values denote countries in deficit, while positive values correspond to countries with a surplus. The figure indicates how world imbalances are distributed across countries. The foreign trade balance-to-GDP ratio is calculated as a country's foreign trade balance over GDP. It shows how large trade imbalances are relative to the size of the economy. The ratio is negative if a country imports more than it exports, and more so if GDP is relatively small. The ratio is close to 0 if the value of exports is fairly equal to that of imports, and positive if the value of exports is higher.

The level of sophistication is generally high for exports originating from developed countries, but varies widely with respect to developing countries' exports. It tends to be higher in East Asian countries, moderate in Latin America and South Asia, and relatively low in Africa. East Asian countries tend to export products that are generally more sophisticated than exports from countries with similar levels of gross domestic product (GDP), while the opposite is observed in many Latin American countries.

### **INDEX 17 - EXPORT SOPHISTICATION AND EXPORT SOPHISTICATION GAP**



### Export sophistication (2013)

Export sophistication gap (2013)



Export sophistication is measured by the EXPY index. The EXPY can be summarized as a country's per capita GDP as predicted by the composition of its export basket. Countries with a higher EXPY are those that export goods which are more sophisticated. Since the EXPY and GDP per capita are positively correlated by construction, what is of interest is also how a country's EXPY compares to that of countries with similar levels of GPD per capita. This is measured by 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 countries at a lower level of development. This index takes into account only exports of goods.

### **Data Sources:**

All statistics in this publication have been produced by the UNCTAD Secretariat by using data from various sources. Data for merchandise trade statistics originated from UNSD COMTRADE (comtrade.un.org). UNCTADSTAT (unctadstat.unctad.org) and UN Service Trade Database (unstats.un.org/unsd/servicetrade) are the sources of service statistics. The data have been standardized to ensure cross country comparisons. Data, although comprehensive and comparable across countries, do 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 UN classification (UNSD M49). Developed countries comprise those commonly categorized as such in UN statistics. For the purpose of this report, transition economies, when not treated as a single group, are included in the broad aggregate of developing countries. Following the Broad Economic Categories (BEC) classification, international trade is classified into four major economic categories, depending on the stage of processing and use. Primary products comprise raw materials and resources used in the productive process. Intermediate products comprise semi-finished goods that are used in the production of other products. Consumer products are those that are intended for final consumption. Capital goods are manufacturing goods such as machinery that are intended to be used in the production of other goods. Product sectors are categorized according to the International Standard Industrial Classification (ISIC), augmented by five broad agricultural sectors based on the Harmonized System classification (HS). Figures are in current US\$, except where otherwise specified.

Data coverage includes all countries reported in the COMTRADE Database. Mirror data are used when national data are unavailable. Due to data limitations, the Democratic People's Republic of Korea, Somalia and South Sudan are excluded from all statistics.

Further information relating to the construction of data, statistics, tables and graphs contained in this publication can be made available by contacting <u>tab@unctad.org</u>.



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