KEY TRENDS
in International Merchandise Trade
NOTE

This publication is a product of the Trade Analysis Branch, Division on International Trade in Goods and Services, and Commodities (DITC), UNCTAD secretariat. It is part of a larger effort by UNCTAD to analyse trade-related issues of particular importance for developing countries. Alessandro Nicita was the coordinator of this study. Christina Bodouroglou and Marco Fugazza also contributed to this study.

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INTRODUCTORY NOTE

The purpose of this report is to provide some key trends in world trade in goods over the recent medium-term period. This report is intended as a monitoring exercise so as to provide interested readers with informative data and analysis on a regular basis.

The report is organized in four parts. The first part presents broad statistics on international trade. The second part presents statistics on international trade disaggregated by broad product groups and economic sectors. The third part presents statistics related to bilateral trade flows and regional trade flows. The fourth part presents some of the commonly used indices related to international trade including diversification, intra-industry trade and sophistication of exports.

This report relies on UNSD COMTRADE hard data for key trade statistics (in current value terms). International trade is defined as trade exclusively in goods (merchandise). Services are not included in any of the statistics presented here. COMTRADE data, although comprehensive and comparable across countries, do not perfectly reflect national statistics (see http://comtrade.un.org/), and thus some discrepancies with specific national statistics may be present. The data have been standardized to assure cross-country comparisons. Non-trade macro-level data used in the figures originate from UNCTADSTAT.

For the purpose of this report, countries are categorized in two ways: by geographic region and by level of income as defined by United Nations classifications (United Nations Statistics Division M49). Developed countries and major developing economies 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. For the purpose of this report, the statistics for China, Hong Kong Special Administrative Region are presented separately in figures under the name Hong Kong SAR.

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).

All data and figures and tables contained in this report, as well as more detailed data, can be accessed at the UNCTAD Trade Analysis Branch website (http://www.unctad.info/en/Trade-Analysis-Branch)
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OVERVIEW

Notwithstanding the economic crisis, world trade has increased dramatically over the past decade, rising almost three-fold since 2002 to reach about US$18 trillion in 2011. Developed countries continue to constitute the main players in international trade, however developing countries account for an increasing share. As of 2011 almost half of world trade has originated from developing countries (up from about one-third in 2002). Although trade growth (both import and export) has been higher for developing countries during the last decade, this trend is slowly abating. Indeed, data for 2010 and 2011 indicate more homogenous rates of import and export growth across all country groupings, with no dramatic differences between developed and developing countries.

Although well-performing as a group, the integration of developing countries into the global economy has been very varied. East Asia continues to dominate developing country trade flows, while other regions lag far behind. Notably, China has become an increasingly important trading partner for many other developing countries, not only in the East Asian region but also in sub-Saharan Africa and Latin America. Conversely, the importance of developed countries as major destination markets, although still very important, has in many cases decreased. More generally, increased demand in developing (especially middle-income) countries is having important repercussions for international trade flows. This rise in demand paired with fragmentation of production processes has resulted in the rapid increase of South–South trade during the last decade. Of note is that a large share of this increase reflects specific product categories (e.g. electronics) being traded from, to and especially between East Asian countries.

The importance of regional trade has further differed among developing country regions. While about 40 per cent of East Asian trade is intraregional, intraregional trade is also of significance only for Latin America and the transition economies (about 20 per cent), whereas for the remaining regions this percentage falls to around 10 per cent or less. For the latter regions, the lack of intraregional trade is largely due to the fact that countries’ export (and import) profiles are generally not complementary but overlapping. In practice, without major changes in export and import composition (such as those brought about by fragmentation of production processes and consequent specialization in particular segments), further increase in intraregional trade is unlikely. Indeed, intraregional trade over the past five years has tended to grow at a slower pace than extraregional trade.

Growth patterns of international trade have also varied across categories of products. The last decade has seen an overall increase in the importance of primary (especially energy-related) products in world trade. This has been prompted by a surge in demand in emerging markets and a consequent rise in commodity prices. Driven by fragmentation of production processes and higher intra-industry trade, international trade of intermediates products has also increased greatly, reaching about US$7 trillion in 2011 (up from US$2.5 trillion in 2002). Valued each at around US$3 trillion in 2011, consumers and capital products represent a significant, albeit somewhat declining, share of international trade.

With regard to specific economic sectors, fuels represent the largest (and fastest growing) product category in terms of value of trade (almost 20 per cent of world trade in 2011). Other significant sectors include chemicals, machineries, communication equipment and motor vehicles. In contrast, the importance of agriculture in total merchandise trade is relatively small (less than 10 per cent and less than each of the other major sectors). The position of a country as an exporter of a particular product is generally determined by the availability of natural resources, technological competence and, ultimately, comparative advantage (production and trade costs). While developed countries remain major exporters of most sophisticated goods (e.g. motor vehicles) and some heavy industry (e.g. chemicals), developing countries have increased their market share as exporters of commodities and especially of light manufacturing goods (e.g. apparel and electronics). One important insight is that the export shares (and hence production) of light manufacturing have substantially shifted not only from developed to developing countries but also among developing countries. Still, most of these shifts have occurred to the advantage of East Asian countries. The integration of other regions into the international trade of manufacturing products remains extremely limited. In practice, sub-Saharan Africa’s participation in global production and trade
is still largely confined to energy products and other commodities, while that of Latin American countries remains largely tied to agricultural goods and mining.

The dependence of many developing countries on exports of natural resources and other commodities makes them particularly vulnerable to price movements in international markets. Despite efforts by numerous countries to diversify their export base, these have often borne negligible results. As of 2011, the exports of many developing countries are still concentrated in a limited number of products supplied to a limited number of destinations. This is particularly evident in many low-income countries, especially in the sub-Saharan African region. Export diversification matters more when countries are able to diversify their exports into more sophisticated, higher value added products, as this typically signals advancements along the technological ladder and often potentially higher rates of economic growth. During the last five years the technological content of the export basket of most developing countries has increased, although more so for those in the high- and middle-income brackets. This trend suggests that the technological advancements of low-income countries have been generally more muted, implying that their export basket has often remained tied to unprocessed products with little value addition. One important insight is that technological content is generally higher in the case of regional rather than extraregional trade. This suggests that intraregional trade could represent an important stepping stone for low-income countries to achieve technological upgrading.
1. Overall Trends in International Trade

World trade has reached about US$18 trillion in 2011, increasing almost three-fold since 2002. A large share of the increase in world trade can be attributed to developing countries. High- and middle-income countries (developed and developing) continue to constitute the main players in international trade, while the participation of low-income countries (including LDCs) in world trade remains limited.

International trade has increased dramatically in the last 10 years, rising from US$6.5 trillion in 2002 to around US$12 trillion in 2006, to reach around US$18 trillion in 2011 (figure 1a). Developed countries remain the main destination of international trade flows, with total imports valued at about US$10 trillion. As of 2011, the export value of developing countries has been similar to that of developed countries (around US$9 trillion). Trade flows to and from developing countries largely involve middle-income countries (about half) and high-income countries (about one-third) (figure 1b). Low-income countries account for a small, albeit increasing, share of the trade of developing countries, about 10 per cent of exports and 12 per cent of imports in 2011. Least developed countries (LDCs) only account for a minor, although also increasing, fraction of developing country trade.
Developed countries account for more than half of global export and import flows. East Asia dominates developing country trade flows, its trade being of a similar magnitude to that of all other developing country regions combined.

As of 2011, developed countries account for about US$9 trillion of exports and about US$10 trillion of imports (figures 2a and 2b). As a whole, for developing countries trade is of a similar magnitude (US$9 trillion in exports and US$8 trillion in imports). East Asia comprises the bulk of developing countries’ trade, with an estimated US$4 trillion of exports and imports in 2011. Other regions’ participation in world trade is markedly more limited. Nevertheless, there has been a significant increase in the exports and imports of other developing country regions over the past decade, even if from much lower starting points.
Notwithstanding the economic crisis, international trade has grown substantially over the last five years. In general, rates of trade growth have been fairly similar across developing country regions. Yet, South Asia has been the fastest growing region both in terms of exports and imports. Increased demand in South Asia, East Asia and Latin America has resulted in imports growing faster than exports.

### Figure 3
Export and import growth, by region

<table>
<thead>
<tr>
<th>Region</th>
<th>2010-2011</th>
<th>2006-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed Countries</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>East Asia</td>
<td>80%</td>
<td>60%</td>
</tr>
<tr>
<td>Latin America</td>
<td>90%</td>
<td>70%</td>
</tr>
<tr>
<td>South Asia</td>
<td>100%</td>
<td>80%</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>80%</td>
<td>60%</td>
</tr>
<tr>
<td>Transition Ec.</td>
<td>50%</td>
<td>30%</td>
</tr>
<tr>
<td>W. Asia &amp; N.Africa</td>
<td>40%</td>
<td>20%</td>
</tr>
</tbody>
</table>

World trade has risen significantly from its level in 2006. Figures 3a and 3b portray the increase in trade between 2006 and 2011 as well as between 2010 and 2011. In spite of the global economic crisis, for developed countries trade has increased by about 30 per cent since 2006. Trade flows originating from and destined to developing countries have increased substantially faster. Since 2006 exports have increased by a minimum of about 60 per cent, in the case of East Asia and Latin America, and a maximum of about 90 per cent in South Asia. Sub-Saharan African exports have increased by about 80 per cent. Imports by developing countries have also increased considerably, varying from almost 50 per cent in West Asia and North Africa, to a peak of more than 150 per cent in South Asia. Importantly, rates of import growth have exceeded export growth rates in East Asia, Latin America and South Asia, indicating growing demand levels in these regions.

The latest trends for 2010 and 2011 indicate sustained rates of import and export growth across all country groupings, with no dramatic differences between developed and developing countries. For developed countries trade has on average increased by about 15 per cent, while for developing countries it has grown by about 20 per cent, with some important differences among regions.
Between 2006 and 2011 international trade has increased in all major developing economies but the Philippines. However, there have been large differences across countries. China, Colombia and India have exhibited particularly robust export growth rates.

Figure 4
Export growth of major developing economies and growth gap

Export performance between 2006 and 2011 has been considerably varied across countries. Figures 4a and 4b report the percentage change in the value of export flows of major developing economies for the periods 2006–2011 and 2010–2011, alongside the difference from the average change of the rest of the countries in the respective region. Brazil, China, Colombia, India, Nigeria and Peru have all recorded levels of growth substantially higher than the growth of their respective region. In particular, India’s export growth has been about 130 per cent, surpassing the region’s average by about 60 percentage points. China’s and Brazil’s exports also have grown considerably more than exports from their respective regions (about 30 per cent higher). Underperformers in the major developing economies category include Chile, Hong Kong (China), the Islamic Republic of Iran, Mexico, Pakistan, the Philippines, Taiwan Province of China and the Bolivarian Republic of Venezuela which grew substantially less than other countries and economies in their respective regions. With regard to the latest trends between 2010 and 2011, all major developing economies – bar the Philippines – attained double-digit export growth rates on a yearly basis. Yet, performance has varied by country. Export growth rates have been higher in Colombia and the Bolivarian Republic of Venezuela, particularly in comparison to other Latin American countries. Major developing economies such as Brazil, China, India, Indonesia and South Africa have also overperformed compared with most other countries in their corresponding regions. Underperformers include Chile, Mexico, Nigeria, Pakistan and the Philippines (the only major developing economy for which exports contracted).
Export growth has been fairly varied across developed countries. Between 2006 and 2011, the exports of developed countries grew from a range of a maximum of about 110 per cent (Australia) to virtually 0 per cent (Finland). Export growth between 2010 and 2011 ranged from more than 40 per cent (Greece) to about 5 per cent (Spain).

During the past five years, export growth has been fairly varied across developed countries. Figures 5a and 5b report the percentage change in export flows from developed countries for the periods 2006–2011 and 2010–2011, as well as the difference from the rest of developed countries. Since 2006 export growth has been more pronounced in Australia, as well as in many new members of the European Union. Export growth has been below average in many of the core European Union member States as well as in Canada and Japan. With respect to the latest trends, between 2010 and 2011 exports from Greece and many of the newer European Union member States have grown at a notably faster rate than other developed countries and even many developing countries. In contrast, exports from Japan, the Netherlands and Spain have grown at a markedly slower rate than other developed countries.
In the last decade trade growth has tended to be higher in poorer countries relative to richer countries. In addition, the imports of low- and middle-income countries have generally experienced faster import over export growth, reflecting a higher surge in demand in emerging markets. The latest trends indicate more equal rates of trade growth across national income levels.

Figures 6a and 6b illustrate the relationship between trade growth rates and GDP per capita. Between 2002 and 2011 trade growth has been inversely correlated with GDP per capita as percentage growth of both imports and exports has on average been higher in poorer countries than in richer countries. Moreover, in middle-income countries imports have generally grown faster than exports, indicating a relatively higher surge in demand in emerging markets. The opposite is the case in high-income countries where imports have grown at a slower pace than exports. The latest data for 2010-2011 confirm the inverse correlation between export growth and GDP per capita. Nevertheless, this correlation does not hold for imports, indicating a more homogeneous pattern of demand growth across countries with different levels of income.
At more than US$7 trillion in 2011, intermediate products comprise the most important flow of world trade. During the last decade primary products have seen their share of world trade increase, prompted both by a surge in demand in emerging markets and higher commodity prices.

Intermediate products trade accounted for more than US$7 trillion in 2011, representing a share of about 40 per cent of total trade. Primary, capital and consumer products each account for slightly less than US$3 trillion (Figure 7a). A remaining US$2 trillion is made up of products that are not classified in any of these categories. Although the value of trade in intermediates has almost tripled since 2002, its share in total trade has remained roughly stable. Mainly owing to rising commodity prices, especially oil, primary products represent an increasing share of world trade. Conversely, the importance of consumer and capital products in world trade has declined. Comparing the relative trade shares between the two broad groupings of developed and developing countries, the former still accounted for over half of global exports at all main stages of processing apart from the primary product sector in 2011 (Figure 7b). Nevertheless, the share for developed countries has seen a steady decline over the past decade as that of developing countries has increased.
As a whole, developed countries dominate world trade at every stage of processing, both as importers and exporters. Although East Asian countries account for a substantial share of world trade, other the participation of developing countries in world trade is much smaller and still largely limited to exports of primary products.

Developed countries account for the bulk of world trade in all categories of products, including the export of primary products (figures 8a and 8b). Among developing country regions, most trade relates to East Asia. The region’s export composition reveals its role as a global manufacturing hub, as evidenced by relatively high imports of primary and intermediate products, matched by relatively high exports of intermediate, final and capital products. The value of trade of other developing country regions is substantially smaller, and countries typically concentrate on exports of primary products and imports of intermediates and final products.
Fragmentation of production, as measured by trade in intermediates, has increased dramatically over the last decade. However, this is a phenomenon largely confined to developed countries and the East Asian region. Delocalization of production to other developing country regions, although increasing, is still limited.

Figure 9
Exports of intermediates, by region and regional orientation

The high value of trade in intermediate products is indicative of the fragmentation of production brought about by the presence of global/regional supply chains. Fragmentation of production processes in the context of global supply chains is a trend that has proliferated in the last decade. Figure 9 reports the value of trade in intermediates across country groupings. Fragmentation of production is a phenomenon that relates almost exclusively to developed countries and to the East Asia region. In addition, a substantial share of intermediates trade is intraregional, which suggests that fragmentation of production occurs to a large extent within East Asia and within developed countries.
Comprising almost 20 per cent of world trade, fuels represent the largest product category in trade value terms. Other significant sectors include chemicals, machineries, communication equipment and motor vehicles. The importance of agriculture in total merchandise trade remains at less than 10 per cent.

International trade can be disaggregated into broad categories of products according to the ISIC classification. Figure 10 displays the value of trade in 25 product sectors in 2002, 2006 and 2011. In terms of value, a large share of international trade relates to energy products, chemicals, machineries, communication equipment and motor vehicles. Trade flows of oil, gas and coal have increased significantly since 2002, reaching a value of over US$2 trillion in 2011, or around 13 per cent of international trade. Combined with petroleum products, valued at more than US$1 trillion in 2011, this raises the share of energy trade to almost a fifth of the total. Chemicals exhibited the second highest value of trade at US$2 trillion (up from about US$0.7 trillion in 2002). Trade in machinery (comprising electrical, office and various) made up around US$2.6 trillion, or 15 per cent of total trade. Other highly valued trade sectors include communication equipment and motor vehicles, each worth over US$1.2 trillion in 2011. In contrast, light manufacturing sectors including textiles, apparel and tanning, comprised a relatively small share of world trade. Agricultural sectors – which include food products, vegetable products, animal products, oils and fats, as well as tobacco and beverages – accounted for around US$1.5 trillion of trade flows, representing less than 10 per cent of international trade. Since 2002, the value of trade has increased steadily in all sectors, an exception being office machineries, the value of which dropped slightly from 2006 to 2011. Over the past decade, trade growth has been particularly robust in the energy and metal-related sectors.
Developed countries dominate trade flows in most product sectors. Yet developing countries represent a significant share of exports in the primary and some light manufacturing sectors. Between 2006 and 2011, for developing countries the share of international trade has increased in almost all sectors, although to a varying degree.

The sectoral composition of trade – both on the import and export sides – tends to be related to a nation’s level of development. Figures 11a and 11b depict the share of global exports and imports of different product categories pertaining to developed and developing countries, and their changes between 2006 and 2011. In 2011 developed countries accounted for more than 70 per cent of world exports of motor vehicles, paper products, transport equipment, various machinery, animal products and chemicals. In contrast, developing countries accounted for a substantial share of exports of office machinery and communication equipment, and light manufacturing products such as textiles, tanning and apparel. Developing countries are also key exporters in sectors relating to primary products (especially fuels). On the import side, developed countries account for more than half of the total value of imports in almost all sectors. In 2011, developed countries accounted for almost 80 per cent of global imports of apparel and over 60 per cent of imports of a range of products including motor vehicles, office machineries, wood products and furniture, food and animal products. Developing countries are major importers of energy and primary products. Developing countries also account for a large market share of trade in communication equipment. Between 2006 and 2011, for developing countries the share of international trade increased in most sectors (the exceptions being mining and metal ores, petroleum products and animal products – shown in white in figure 11a). With regard to exports, for developing countries the market share increased most in mining and metal ores and in motor vehicles. With respect to imports, for developing countries the share increased most in mining and metal ores and in motor vehicles.
Among developing country regions, East Asia is by far the largest exporter in manufacturing sectors. Exports of non-manufacturing goods are more uniformly distributed across developing country regions. West Asia and North Africa dominate exports of energy products, while Latin America enjoys a large share of exports of mining and metal ores and certain agricultural products.

Figure 12 illustrates the share of world exports of each developing country region with a breakdown by sector (developed countries account for the unreported share). As of 2011, East Asia has been positioned as the main exporter in a number of manufacturing sectors, not only among developing countries but also at the global level. East Asia accounts for about 70 per cent of the global value of exports of office machineries and communication equipment and about 50 per cent of exports of tanning, textiles and apparel products. East Asian exports also constitute a significant share of world exports in several other manufacturing sectors. Other developing country regions do not participate substantially in international trade in the manufacturing sector, although they are important players in some sectors relating to primary products and agriculture. Exports from West Asian and North African economies and transition economies add up to about half of world exports of oil, gas and coal. Latin American countries represent a significant share of exports relating to mining (ores) and agriculture (vegetable and food products). Exports from the sub-Saharan African region are significant at a global scale in the energy, mining and metal ore sectors. The importance of South Asia as a global exporter is confined to the apparel and textile sectors.
Between 2006 and 2011 trade growth has varied across sectors. Mining and metal ores, energy and agriculture have been the fastest-growing sectors, while several manufacturing sectors have grown at a much slower pace. Developing countries have generally outperformed developed countries in terms of export growth in almost all product sectors. However, this trend has not persisted in 2010–2011.

Partly prompted by higher energy and commodity prices and partly by increased demand, the fastest growing trade sectors in value terms between 2006 and 2011 were mining and metal ores, energy-related sectors and various agricultural sectors (figure 13a). Export growth was relatively more muted in some of the sectors of importance to low-income countries such as textiles and apparel. Exports of office machinery shrank in developed countries both because of lower demand and relocation of production processes to developing countries. Between 2006 and 2011, the export growth of developing countries generally outperformed that of developed countries in most product sectors. However, this trend did not persist in the period 2010–2011, during which exports from developed and developing countries grew at similar rates (figure 13b).
3. Trade Flows among/within Developed and Developing Countries

The past decade has witnessed a strong rise in trade between developing countries. As a result, the value of South–South trade has increased to reach levels comparable to North–North trade in 2011. Trade between developed countries and developing countries represents a share of about 40 per cent of world trade.

Figure 14
Distribution of world trade between developed and developing countries

The increase in world trade between 2002 and 2011 has been largely driven by the rise in trade between developing countries (figure 14). As of 2011, the value of trade between developing countries (South–South) has been almost as high as that of trade between developed countries (North–North). In terms of the share of world trade, South–South trade rose from less than one-fifth in 2002 to almost one-third of world trade in 2011. On the other hand, North–North trade increased at a much lower rate. As a result, the relative importance of North–North trade has declined over time, falling from almost half of world trade in 2002 to around one-third in 2011. Trade between developed countries and developing countries represents a share of about 40 per cent of world trade, which mainly comprises exports from developing nations to the developed world.
The exports of developed countries are concentrated in chemicals, motor vehicles and machineries. The importance of manufacturing products – especially communication equipment and office machinery – in the export basket of developed countries has diminished, while that of agricultural products, although relatively small, has increased.

Figures 15a and 15b depict the importance of different product sectors in the composition of North–North and North–South trade in terms of export flows. Trade between developed countries mainly encompasses trade in chemicals, motor vehicles and various machinery which collectively make up around 40 per cent of North–North flows. Conversely, the agricultural, textile, apparel and tanning sectors do not feature prominently in North–North trade. In general, the export pattern of developed countries tends to be similar irrespective of whether goods are destined to other developed countries or to developing countries. An exception includes the case of fuels (oil, gas and coal) which comprise a larger share of North–North trade (around 5 per cent) than North–South trade (2 per cent). In addition, North–South trade of communication equipment declined significantly from 11 per cent on 2006 to 7 per cent in 2011. This is in line with developments in the communication equipment sector which has seemingly experienced a relocation of production from developed to developing countries. On the whole, the importance of manufacturing products – especially communication equipment and office machinery – in the export basket of developed countries has declined, while that of agricultural products, although relatively small, has increased.
The energy-related sectors account for the largest (and an increasing) share of exports from developing countries, estimated at over 25 per cent in 2011. Communication equipment also presents a major export product group in developing nations, especially East Asia.

Figures 16a and 16b illustrate the importance of the various product sectors in South–South and South–North trade in terms of exports flows. Trade flows originating in developing countries mainly encompass fuels (oil, gas and coal as well as petroleum products), communication equipment and chemicals. The energy sectors account for the largest share, representing almost one-third of South–North trade and around one quarter of South–South trade in 2011. The share of energy-related exports from developing countries has risen since 2006, prompted by higher demand and prices. Communication equipment also presents a major export product group in developing nations, accounting for circa 15 per cent of South–South trade and 10 per cent of South–North trade, although this largely comprises East Asian exports.
South–South trade flows have expanded over the past decade to represent more than half of trade of developing countries. East Asia accounts for both the largest and the fastest-growing share of South–South trade, while wide differences exist between developing countries and regions.

Figure 17
Regional composition of South–South and South-East Asian trade

(a) South South Trade
- Intra-regional
- With East Asia
- Other South–South

(b) South-East Asia Trade
- East Asia
- Transition Ec.
- Latin America
- W.Asia & N.Africa
- South Asia
- Sub-Saharan Africa

Note: Names of countries, territories or areas of geographical interest and their subdivisions are indicated here according to ISO country alpha-3-codes.

Figure 17a denotes the contribution of South–South trade over total trade and further decomposes it among intra-regional flows related to East Asia and other South–South trade. The significance of South–South trade flows for developing countries is evident when considering that in 2011, in most cases, they represented more than half the trade of developing country regions (imports and exports). This share varies by region, ranging from 40 per cent in Latin America and transition economies, to about 60 per cent in South Asia and East Asia. Although a certain proportion of South–South trade encompasses intra-regional flows, the largest part involves trade with the East Asia region. In addition, while the share of intra-regional trade has declined since 2006, East Asia has become an increasingly important partner for all other developing country regions. Other South–South trade has also risen, mainly driven by increased trade of energy products and raw materials.

The scatter diagram (figure 17b) further illustrates the importance of East Asian economies as trading partners with other developing countries, both within and outside the region. The scatter diagram portrays the share of South–South trade of developing countries (imports and exports) that takes place with East Asian countries. East Asian countries tend to trade to the greatest extent among themselves, with intra-regional trade representing over 70 per cent of South–South trade in all countries within the region. More significantly, East Asian countries have become increasingly important trading partners of many other developing countries over the past 10 years, although there are wide differences at the country level.
During the last five years with data (2006–2011), South–South trade grew at a faster pace than South–North or North–South trade in all developing regions. In the last year, South–South trade continued to expand relatively faster in East Asian and Latin American countries. However, South–North trade generally rebounded more strongly in the other developing regions.

Between 2006 and 2011, trade growth patterns have been similar across developing country regions. In all regions the rate of growth of South–South trade exceeded the rate of growth of trade with developed countries. With regard to trade between developing and developed countries, of note is that exports from the North to the South grew faster than exports from the South to the North in all regions but the transition economies. However, the aforementioned trends have not been observed in the period 2010–2011. Between 2010 and 2011 the rate of growth of South to North trade exceeded that of other flows, apart from in East Asia and Latin America where South–South trade flows continued to increase at a faster pace than trade with developed countries.
Regional trading partners have become increasingly important for the large majority of developing countries. Yet the magnitude and pace of regional integration vary both between and within regions.

Figure 19
Share of intraregional trade, by country

Intraregional Trade

Note: Names of countries, territories or areas of geographical interest and their subdivisions are indicated here according to ISO country alpha-3-codes.

Figure 19 illustrates the share of intraregional trade at the country level in 2002 and 2011. As shown in the figure, the large majority of developing countries lie below the 45 per cent line, indicating that the share of intraregional trade increased in most cases. Nevertheless, the degree of regional trade integration remains quite diverse both within and across regions. Most countries in East Asia are now substantially more interdependent than they were in 2002. In extreme cases (Democratic People’s Republic of Korea, Lao People’s Democratic Republic, Mongolia and Myanmar) the share of trade with regional partners exceeded 80 per cent of their total trade in 2011. Of note is that China represents an outlier in East Asia, its share of intraregional trade being the lowest in the region and declining. This is largely owing to China’s increased trade with developed countries. Although the majority of Latin American countries have experienced a rapid increase in their share of intraregional trade, this has nonetheless not been the case for some of the major economies in the region. Moreover, on average, the region’s share of intraregional trade remains below 40 per cent; only in the case of the Plurinational State of Bolivia does regional trade represent more than half of total trade. With regard to other regions – with the exception of a few landlocked countries and certain transition economies – the share of intraregional trade, albeit increasing, remains exceedingly low.
Most East Asian countries are natural trading partners with each other, as their export and import profiles match. However, trade complementarity of other developing countries with regional trade partners is significantly more limited. This suggests that substantial increases in intraregional trade are unlikely without major changes in their export and import compositions.

Figure 20 illustrates the trade complementarity index of developing countries vis-à-vis their respective regions. This index provides useful information on prospects for intraregional trade insofar as it reveals how well the structure of a country’s imports and exports match that of its regional partners. A high degree of complementarity often implies more favourable prospects for intraregional trade, while changes over time indicate whether countries’ trade profiles are becoming more or less compatible. Although many East Asian economies demonstrate the highest potential for intraregional trade, this potential has been declining since 2002 suggesting a possible trend towards greater extraregional market orientation. In the case of other developing countries, their complementarity with regional trade partners appears much more limited, indicating that a notable rise in intraregional trade is unlikely to take place without the occurrence of major changes in trade structures. For instance, the prospects of sub-Saharan African countries for greater intraregional trade, although becoming more favourable, remain limited as their import and export profiles do not match. The potential of increased intraregional trade is higher for a number of Latin American countries as well as key regional economies such as India, the Russian Federation, South Africa and Turkey, all of which have trade structures that are well endowed for fostering closer trade relationships with their regional partners.

Note: Names of countries, territories or areas of geographical interest and their subdivisions are indicated here according to ISO country alpha-3-codes.
The last five years has seen growth of intraregional trade lag behind growth of overall trade. The most recent trends also confirm lagging growth of intraregional trade in most regions.

Figure 21
Intraregional and extraregional trade growth, by region

Although the increase in regional trade is generally promoted in the context of regional trade agreements, there is no hard evidence that intraregional trade has been growing at a faster pace than extraregional trade, including in the East Asia region. Figure 21a reports the percentage increase of intraregional and extraregional trade for the periods of 2006–2011 and 2010–2011 for each of the six regional country groupings. During the last five years the rate of growth of intraregional trade surpassed that of extraregional trade only in the case of Latin America. Between 2010 and 2011 the growth of intraregional trade outpaced that of extraregional trade only for transition economies (figure 21b). In the case of sub-Saharan Africa, while extraregional trade grew by almost 30 per cent between 2010 and 2011 (largely because of burgeoning trade relations with emerging markets), intraregional trade registered very limited growth.
World trade is largely concentrated within Europe, North America and East Asia. While the importance of East Asia, and particularly China, as players in international trade is increasing, that of developed countries is decreasing.

Table 1
Matrix of share of world trade in 2011, by region and major economies

<table>
<thead>
<tr>
<th>Importers</th>
<th>Europe</th>
<th>Germany</th>
<th>Canada</th>
<th>United States</th>
<th>Mexico</th>
<th>Latin America</th>
<th>East Asia</th>
<th>China</th>
<th>Japan</th>
<th>Republic of Korea</th>
<th>Australia and New Zealand</th>
<th>South Asia</th>
<th>India</th>
<th>West Central Asia and North Africa</th>
<th>Sub-Saharan Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>16.5%</td>
<td>5.5%</td>
<td></td>
<td>1.9%</td>
<td></td>
<td>0.7%</td>
<td>1.0%</td>
<td>2.4%</td>
<td>0.6%</td>
<td>1.8%</td>
<td>0.3%</td>
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<tr>
<td>Germany</td>
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<td>0.7%</td>
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<tr>
<td>Canada</td>
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<td>0.3%</td>
<td>0.0%</td>
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<tr>
<td>United States</td>
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<td></td>
<td>2.0%</td>
<td>- (0.4%)</td>
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<td>1.5%</td>
<td>- (0.1%)</td>
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<td>1.0%</td>
<td>2.5%</td>
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<tr>
<td>Mexico</td>
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<tr>
<td>Latin America</td>
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<tr>
<td>East Asia</td>
<td>1.0%</td>
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<td>0.9%</td>
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<tr>
<td>China</td>
<td>1.0%</td>
<td>0.5%</td>
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<td>0.8%</td>
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<td>Republic of Korea</td>
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<td>0.4%</td>
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<tr>
<td>Australia and New Zealand</td>
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<tr>
<td>India</td>
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<td>0.6%</td>
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<tr>
<td>West Central Asia and North Africa</td>
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<tr>
<td>Sub-Saharan Africa</td>
<td>0.3%</td>
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<td>0.3%</td>
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</table>

Note: Percentages below 0.25 are omitted. Changes in the share of world from 2006 are indicated in parenthesis.

Table 1 presents the distribution of world trade across geographic regions and some major countries in greater detail (excluded from their respective regions). World trade is largely concentrated within three regional hubs (namely, Europe, North America and East Asia), in addition to a number of bilateral flows largely involving China, the European Union and the United States. In particular, intra-European trade represents about one-fourth of world trade (with Germany accounting for about 25 per cent of this). Trade within NAFTA represents about 6 per cent, while trade among East Asian countries accounts for about 13 per cent of world trade. Substantial trade also exists between US, Europe and East Asia (especially China). A substantial part of international trade also relates to oil and gas exports from West Asia and North Africa. Sub-Saharan Africa is largely disconnected from international trade flows, except for some trade with China and exports to the European Union. In assessing trends over time, table 1 also indicates the rising importance of East Asia, and in particular China, as a key player in international trade. Since 2006 the share of international trade involving China, on the one hand, and virtually all regions and major economies, on the other, has increased.
During the last decade major emerging markets have increased their share of world trade, while shares of developed countries have declined. For example, China’s share has increased by about 5 per cent, matched by a decline of about 4 per cent in the United States.

**Figure 22**
Change in world trade shares, by country

Figure 22 displays the percentage change in the market share of world trade at the country level between 2002–2011 and 2006–2011. Over the past decade emerging economies have gained a larger share of world trade. China has experienced the greatest gains, its market share in world trade rising by around 5 per cent since 2002. India has also seen its share of world trade rise by around 1 per cent, with notable gains achieved over the past five years. Among developed countries only Australia saw an increase in its share of international trade. On the other hand, the decline has been particularly pronounced in the case of the United States (losing around 4 per cent since 2002), the United Kingdom (losing almost 1 per cent), Canada, France and Japan (each losing almost 0.5 per cent).
China's increasing presence in global export markets has come largely at the expense of developed countries' market share and not of other developing countries which, in most cases, have also gained market share in recent years.

**Figure 23**
Change in world market share in four dynamic sectors, by country

(a) and (b) illustrate market shares in 2006 and 2011 of major exporters in four of the most dynamic trade sectors. In general, China's global export market shares increased substantially, while those of developed countries declined. With regard to office machinery, China's gains in terms of export market share (17 percentage points) were largely at the expense of the United States and Japan. Similar trends, although of a lower magnitude, are observed in the case of communication equipment. In the case of apparel, China's gains between 2006 and 2011 were much smaller, while Bangladesh and Viet Nam also experienced noticeable gains. For the most part, losses in market share were distributed across many economies, but were especially high for Hong Kong (China). Similar trends, although of a slightly larger magnitude, are observed in the textile sector with China, Bangladesh, India and Viet Nam increasing their market share, while developed countries and Hong Kong (China) experienced a loss in market share.
Over the last 10 years China has become an increasingly important trading partner for virtually all countries. In contrast, the relative importance of major developed economies has decreased.

Figure 24
Share of trade with major economies, by country

(a) Trade with China
(b) Trade with the United States
(c) Trade with the European Union
(d) Trade with Japan

Note: Names of countries, territories or areas of geographical interest and their subdivisions are indicated here according to ISO country alpha-3-codes.

Figures 24a–24d depict countries’ share of trade with each of four major trading partners as a proportion of total trade in 2002 and 2011. Over the past 10 years China has become an increasingly important trading partner almost universally. While the United States remained an important trading partner for Latin American countries, the share of the United States’ trade with countries in the region has declined over time. For most other developing countries, bilateral trade with the United States represented less than 20 per cent of total flows. The European Union remained a particularly significant, even if decreasingly so, trading partner for many West Asian and African countries and transition economies. Japan traded to a greater extent with East Asian countries, while the share of bilateral trade with other developing countries remained below 10 per cent.
4. International Trade Indicators and Indices

Export growth is mainly driven by the increase in the value of existing trade patterns. Export growth owing to diversification into new products or into new markets is less common.

Figure 25
Intensive and extensive margin of export growth, by region

Export growth can be driven by an increase in value of existing export flows to the same destinations (intensive margin) or by exports of new products and/or exports to new destinations (extensive margin). In general, export growth largely occurs at the intensive margin. Yet growth at the extensive margin is indicative of export diversification, which is an important prerequisite for sustainable export growth. Figure 25 shows that, on average, export growth at the extensive margin has been relatively muted in developed countries and the East Asia region. On the other hand, export growth at the extensive margin has been more pronounced in sub-Saharan African countries and transition economies.
Export diversification acts as a determinant for sustained economic growth. Yet diversification remains relatively limited for many developing nations. Countries in East Asia and South Asia are among the most diversified, while those in sub-Saharan Africa are the least.

Figures 26a–26b report simple and trade-weighted averages of the Herfindahl index for each regional grouping. The Herfindahl index is a measure of the degree of concentration of the export basket of a given country. Export concentration can be defined at the product level (see figure 26a; a lower value indicates the region is exporting a more varied basket of HS 6-digit products) or at the product-destination level (see figure 26b; a lower value indicates the region is exporting a larger number of HS 6-digit products and/or to a larger number of destinations). High concentration levels are generally interpreted as an indication of vulnerability, as exports rely on a small number of export markets and/or products.

While developed countries’ overall export structure is significantly diversified, exports of many developing countries are still concentrated in a limited number of products and supplied to a limited number of destinations. Among developing countries, the most diversified regions are East Asia and South Asia. Sub-Saharan Africa is the least diversified region. As can be inferred by the difference between simple and weighted averages larger countries tend to be more diversified than smaller ones. This is particularly evident for countries in the sub-Saharan Africa region.

Although regional differences are similar in figures 26a and 26b, figure 26b suggests a stronger increase in diversification with respect to 2002, especially in the case of sub-Saharan Africa. This difference signals that diversification in many developing country regions has largely occurred due to new export destinations rather than new export products. Another important insight is that East Asian exports have been becoming less diversified, both in terms of products and country destinations. This has resulted from specialization and a more intraregional orientation of trade.
The extent of export diversification varies significantly among major developing economies. Countries abundant in commodities and natural resources tend to have a less diversified export basket. The opposite is true for developing countries with a large manufacturing sector.

Figure 27
Export diversification of major developing economies

Figure 27 reports the Herfindahl concentration index of some major developing economies in 2011 and its deviation from the median of the respective region. Most of the major developing economies depict a relatively low index of export concentration and often a significantly lower index compared to the median index for their region. This is not surprising as major developing economies are generally more diversified than other developing countries in their respective region. Countries with the most diversified export basket are those with a large manufacturing sector such as China, Thailand and Turkey. Countries with the least diversified basket are those with exports that rely heavily on extractive resources, as in the case of the Islamic Republic of Iran, Nigeria and the Bolivarian Republic of Venezuela.
Rising commodity prices alongside new discoveries and means of exploitation of natural resources have resulted in primary products representing an increasing share of the export basket of many countries. The growing importance of primary products is evident not only in developing countries and economies in transition, but also in some developed countries.

Figures 28a–28b illustrate the percentage of exports of primary products, and its change with respect to 2006. Primary products represent more than 60 per cent of exports in several developing countries, with the figure exceeding 80 per cent in certain cases. In addition, there has been a recommoditization trend as the export structure of many countries is now less diversified than it was five years ago. This has been observed not only in developing countries and economies in transition, but also in some developed countries, namely Australia and Canada. This is partly due to discoveries and developments in the extraction of natural resources as well as rising prices of commodities. However, in some countries recommoditization has been prompted by much lower growth rates in non-commodity export sectors. In addition, the number of countries reducing their dependence on primary product exports appears to be relatively small.
Most countries maintain a deficit position in terms of food trade, with imports substantially higher than exports. Latin America represents a surplus region, while countries in the energy rich regions of West Asia and North Africa are often large net food importers. Between 2006 and 2011, net food trade positions have not changed substantially, with the exception of China and the United States.

Figure 29
Food security: Imports and exports and net food trade

(a) Food Imports and Exports (2011)
(b) Net Food Trade (2006-2011)

Note: Names of countries, territories or areas of geographical interest and their subdivisions are indicated here according to ISO country alpha-3-codes.

Figure 29a reports the log value of food imports and exports in 2011 and a corresponding 45 degree line. Food security tends to be an important national policy objective of many countries. Beyond policy considerations, a country’s net food trade position depends on various factors such as availability of agricultural land, population and comparative advantage. Accordingly, countries in Latin America – especially Argentina and Brazil – tend to be large net food exporters.

On the other hand, many of the high-income East Asian economies are net food importers, with certain countries recording substantial deficits in food trade. In a similar vein, most countries in the energy rich (and often desert) regions of West Asia and North Africa are large net food importers. The distribution between net food-importing and food-exporting countries tends to be more uniform in other regions. Between 2006 and 2011, there have been no major changes in countries’ net food trade positions, although net positions have generally increased in value (figure 29b). Notable exceptions to this pattern include the United States which switched from a slightly deficit position in 2006 into surplus in 2011, and China where the opposite occurred.
With changes in production and trade costs, production moves around the globe, therefore shifting countries' share of world trade. Between 2002 and 2011 the propensity to relocate has varied by sector. Sectors which have experienced higher relocation rates include office machinery, communication equipment, textiles and apparel. Lower relocation rates are found in chemicals, paper products and the agricultural sectors.

Figure 30
Change in export market share, by sector

Export shares in world trade often shift across countries, with some sectors being more mobile than others. Figure 30 reports the percentage of exports that has shifted around the globe for the given sector in the given period. The figure provides an indication of the dynamicity of each sector in terms of relocation of production and export processes around the world. During the past 10 years the most dynamic sector, with almost 40 per cent of exports relocating across countries, has been that of office machinery. Other sectors in which export market shares have shifted significantly include communication equipment, textiles and apparel. Export shares of mining and metal ores have also changed substantially, largely owing to an increase in Australia's market share. On the other hand, there has been limited change in the market share of precision instruments, chemicals, motor vehicles, tanning, paper products as well as food, animal and vegetable products.
Export competitiveness in an economic sector ultimately hinges on comparative advantage. High-income countries tend to have a comparative advantage in precision instruments, machineries and motor vehicles, while low-income countries do so in apparel, textiles and agriculture.

Figure 31: Export sophistication, by sector

Sophistication across Sectors

Figure 31 reports the PRODY index associated with each economic sector and its change with respect to 2006. PRODY is an index measuring the level of sophistication of a product. Higher values of PRODY pertain to sectors which require factors of production in which high-income countries have a comparative advantage (highly skilled workers and advanced technology). These sectors are defined as more sophisticated. On the other hand, lower PRODY values relate to sectors in which low-income countries have a comparative advantage (requiring unskilled labour, easily reproducible technology and natural resources). Since 2006 the PRODY of many of the highly sophisticated sectors has been declining, indicating that low- and middle-income countries are increasingly producing these products. This is especially evident in the case of office machinery, exports of which have moved from high- to middle-income countries. The increase in the PRODY in sectors related to natural resources is driven by growing exports of energy products and minerals from developed countries, especially Australia and Canada.
A country’s ability to produce and export highly sophisticated products typically signifies its advancement along the technological ladder, resulting in a higher rate of economic growth. East Asian countries’ exports tend to be more sophisticated than those of other countries with comparable levels of GDP per capita. The reverse holds for Latin American countries.

The level of sophistication of exports is correlated with economic performance. In general, countries exporting more sophisticated products are those advancing faster along the technological ladder and therefore achieving higher rates of economic growth. Figure 32 shows the relationship between EXPY (the average PRODY of the exported products of a given country) and GDP per capita at purchasing power parity (in logs). By construction EXPY and GDP per capita are positively correlated. What is of consequence, however, is whether countries are located above or below the fitted line. Countries lying above the fitted line have an export structure that is more sophisticated (as defined by PRODY) than their GDP per capita would predict.

Conversely, countries lying below the fitted line export products that are typically exported by countries at a lower level of development. The exports of China and most other East Asian countries are more sophisticated than what their GDP per capita would suggest. In contrast, with the exception of Mexico, the export structure of Latin American countries is more comparable to that of countries with lower GDP per capita. For other developing countries regions – especially sub-Saharan Africa – the level of export sophistication vis-à-vis GDP per capita is more heterogeneous, with some countries below and some above the export sophistication levels envisaged by their GDP per capita.
Since 2006, the degree of export sophistication has risen more in high- and middle-income developing countries than in low-income countries. Changes in export sophistication have varied across major developing economies, even within the same region.

**Figure 33**
Change in export sophistication and GDP per capita, by country

Between 2006 and 2011, change in the level of sophistication of exports has been correlated with GDP per capita. Figure 33 illustrates the relationship between the two variables with a fitted line. In general, EXPY has increased more in high- and middle-income developing countries than in low-income countries. Among major developing economies, EXPY recorded the greatest increase in China, Colombia, Hong Kong (China), India, the Islamic Republic of Iran, Pakistan and Turkey. EXPY decreased in the case of Brazil, Egypt, Indonesia, Malaysia and the Republic of Korea, and especially the Philippines.
For a large majority of countries, intraregional exports are relatively more sophisticated than extraregional exports. This suggests that trade with regional partners could represent an important stepping stone in achieving technological upgrading and learning by exporting.

Figure 34
Sophistication of exports, intraregional versus extraregional, by country

Intraregional vs Extraregional EXPY (2011)

Note: Names of countries, territories or areas of geographical interest and their subdivisions are indicated here according to ISO country alpha-3-codes.

Figure 34 illustrates the difference in the degree of sophistication between goods exported to intraregional and to extraregional trade partners. In countries positioned below the 45 degree line, intraregional exports are more sophisticated than extraregional exports and vice versa. In a large majority of developing countries, and especially low- and middle-income developing countries, export sophistication is substantially higher for intraregional flows. This is the case for virtually all Latin American and most sub-Saharan African countries. A higher level of sophistication of intraregional exports indicates that trade with regional partners could represent an important stepping stone in achieving technological upgrading and learning by exporting.
Intra-industry trade represents a large part of international trade. Its importance is higher in developed and East Asian countries and lower in other developing countries, especially in sub-Saharan Africa and in the region comprising West Asia and North Africa. This divergence is likely to persist as trade growth that is intra-industry (vis-à-vis inter-industry) has been lowest in these two regions.

Figure 35
Intra-industry trade and change in marginal intra-industry trade, by region

(a) Intra-Industry Trade (2011)

(b) Marginal Intra-Industry Trade

Figure 35a depicts aggregate intra-industry trade indices computed for developing country regions either as a simple average or as a trade-weighted average. The aggregate intra-industry trade index provides an overall measure of the relative importance of intra-industry trade in an economy's trade profile. Higher values generally denote efficiency in the form of specialization and economies of scale. Developed and East Asian countries exhibit the largest values, meaning that the relative importance of intra-industry trade in their trade profile is the greatest. Countries in the sub-Saharan Africa region as well as in West Asia and North Africa stand at the other extreme of the scale, with index values which are less than half of those of East Asia.

Figure 35b illustrates the marginal intra-industry trade index. This index provides an overall measure of the degree of trade expansion between 2006 and 2011 that was intra-industry versus inter-industry, with larger values indicating a higher degree of intra-industry trade and lower values a higher degree of inter-industry trade. Whether considering simple or trade-weighted figures, trade growth in all regions between 2006 and 2011 has been mainly driven by increased inter-industry trade. Trade growth due to intra-industry trade has been lowest in sub-Saharan African countries and highest in East and South Asian countries.
Since 1999, the Trade Analysis Branch of the Division on International Trade in Goods and Services, and Commodities of UNCTAD has been carrying out policy-oriented analytical work aimed at improving the understanding of current and emerging issues in international trade and development. In order to improve the quality of the work of the Branch, it would be useful to receive the views of readers on this and other similar publications. It would therefore be greatly appreciated if you could complete the following questionnaire and return to:

Trade Analysis Branch, DITC
United Nations Conference on Trade and Development
Palais des Nations, Rm. E-8065
CH-1211 Geneva 10, Switzerland
www.unctad.org/tab

1. Name and address of respondent (optional):

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2. Which of the following describes your area of work?

Government [ ] Public enterprise [ ]
Private enterprise institution [ ] Academic or research [ ]
International organization [ ] Media [ ]
Not-for-profit organization [ ] Other (specify) _________________

3. In which country do you work? _____________________________________________

4. Did you find this publication to your work?
   [ ] Very useful [ ] Of some use [ ] Little use

5. What is your assessment of the contents of this publication?
   [ ] Excellent [ ] Good [ ] Adequate [ ] Poor

6. Other comments:

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