



# KEY STATISTICS AND TRENDS in International Trade **2015**



## ***THE TRADE SLOWDOWN***



**NOTE**

*Key Statistics and Trends in International Trade 2015* is the third edition of a series 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. The series is part of a larger effort by UNCTAD to analyze trade-related issues of particular importance for developing countries, as requested by the Doha Mandate of UNCTAD XIII. Alessandro Nicita and Alain McLaren contributed this study. This study also benefits from inputs and comments from various DITC staff member and from UNCTAD Statistics team. Desktop publishing was done by Jenifer Tacardon-Mercado.

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UNCTAD/DITC/TAB/2015/1

**UNITED NATIONS PUBLICATION**  
ISSN 2311-648X

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## OVERVIEW

As of 2014 the trends in international trade were largely driven by the sluggish economic growth and the persisting economic and political turmoil in various part of the world. From 2011 to 2014 world trade grew at a rate of less than 2 per cent per year, notably slower than in the pre-recession period. World trade has further slowed down during the last year with only marginal growth and mostly related to an increase in the trade of services. The trade slowdown has affected all geographic regions, but by varying degrees. In general, while trade flows among major economies have continued to increase, albeit at a very low pace, trade relating to smaller countries has been generally stagnant and has often shrunk. South-South trade performance has also been anemic, except for trade relating to East Asia and in particular China. In terms of export performance, countries in East Asia, Central America and East Africa generally fared better than their peers. At the sectoral level, trade in manufacturing has grown relatively faster than agriculture since 2011. During the same period, the value of trade in natural resources has declined. Similarly, trade growth in consumer products has outperformed growth in intermediates and in primary products.

This report is structured in three parts. The first part presents an analysis of the extent, causes and implications of the ongoing trade slowdown. The second part provides illustrative statistics on international trade in goods and services covering the last 10 years. Trade statistics are provided at various levels of aggregation illustrating the evolution of trade across economic sectors and geographic regions. The third part of this report presents some of the most commonly used trade indicators at the country level, so as to illustrate trade performance across countries.

### **Data Sources:**

*The statistics in this publication have been produced by UNCTAD Secretariat by using data from various sources. This report relies on UNSD COMTRADE ([comtrade.un.org](http://comtrade.un.org)) hard data for merchandise trade statistics. UNCTADSTAT ([unctadstat.unctad.org](http://unctadstat.unctad.org)) and UN Service Trade Database ([unstats.un.org/unsd/servicetrade](http://unstats.un.org/unsd/servicetrade)) are the sources of service statistics. The data has been standardized to ensure cross country comparisons. Data although comprehensive and comparable across countries, does not perfectly reflect national statistics, and thus some discrepancies with specific national statistics may be present. Unless otherwise specified international trade is defined as trade in goods (merchandise) and services. Countries are categorized by geographic region as defined by the UN classification (UNSD M49). Developed countries comprise those commonly categorized as such in UN statistics. For the purpose of this report, transition economies, when not treated as a single group, are included in the broad aggregate of developing countries. Product sectors are categorized according to the Broad Economic Categories (BEC) classification and 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.*

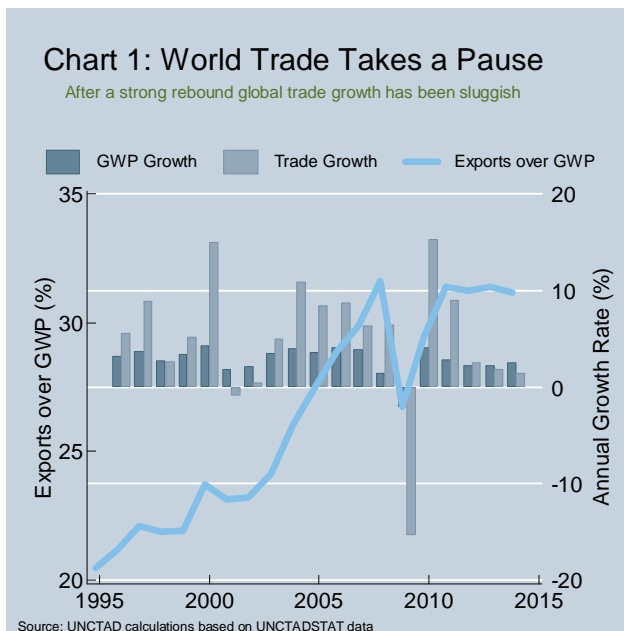
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*Further information related to the construction of the statistics and data and graphs contained in this publication are available by contacting [tab@unctad.org](mailto:tab@unctad.org).*

## 1. THE TRADE SLOWDOWN

One of the stylized facts of the last few decades is that international trade has been growing at a very fast pace. Driven by favorable policies, technological innovation and business models bringing down the costs of cross-border transactions, international trade in goods and services added about 20 trillion US\$ during the last 25 years, going from about 4 trillion US\$ in 1990 to about 24 trillion US\$ in 2014. Such expansion in world trade was both the result of sustained economic growth and of the strong increase in economic interdependence among countries. The consequence is that world trade increased at a much faster pace

than global output or gross world product (GWP) going from about 20 percent of GWP in the early 1990s to more than 30 percent nowadays. This statistic possibly represents the clearest indicator of the globalization process experienced by the world economy in the last few decades.



World trade dynamics have changed since the global recession. After strongly rebounding in 2010 and 2011, global trade growth has been anemic and even lower than GWP growth since 2012. Consequently, world exports over GWP have remained stagnant at a level first reached in 2007. The peculiarity of the last few years vis-a-vis the last two decades is well illustrated in Chart 1. This pattern could indicate the start of a de-globalization period (a process of diminishing interdependence and integration between countries).

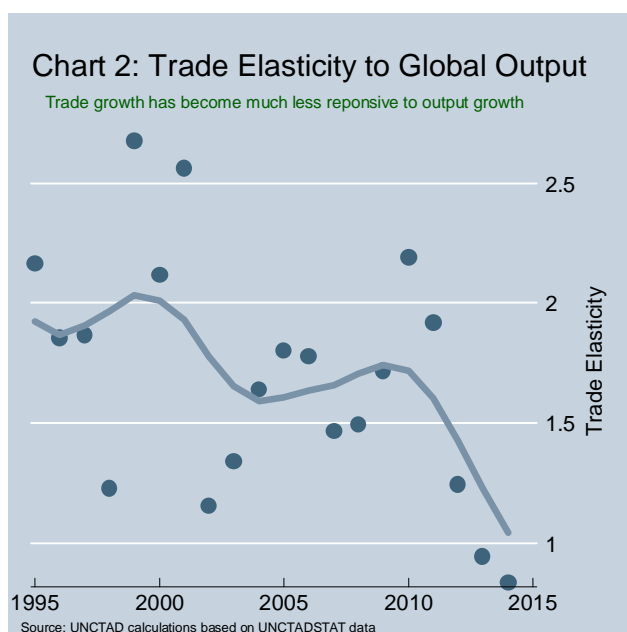
Whether growth in world trade would continue to stagnate or resume its pace depends on the underlining causes of the current slowdown. On one hand, world trade as a percentage of GWP is believed to have reached its peak and any further increase in economic interdependence is unlikely because of inefficiencies, diminished economic interests, and little policy progresses in reducing the remaining trade costs. Declining trade could also be driven by a structural shift in the composition of consumers' demand away from tradable (manufacturing goods) to non-tradable goods (services). On the other hand, these structural factors are one of the causes behind the trade slowdown. International trade is still affected by the remnants of the recession and surely dampened by the ongoing economic and political turmoil in various part of the world. In this regard, at least part of the trade slowdown is expected to be more temporary and to follow a cyclical trend. A return to high trade growth rates is somewhat supported by the last precedent: trade flows continued to outpace GWP the years after the slowdown of 2002 and 2003. Clearly, both structural and cyclical factors are contributing to the trade slowdown; the argument is on their relative importance and their effect on the medium and long term.

To better understand the peculiarity of the last three years, the trade slowdown needs to be put in context of wider macroeconomic trends. In particular, trade performance has to be assessed in relation to the performance of the overall economy. The commonly used indicator for this purpose is the trade elasticity to output (the percentage change in trade over the percentage change in global output, or GDP). The general trend indicates that while world trade elasticities to global output have declined since 2000, they are now well below anything observed in the last 2 decades (Chart 2). While average trade elasticities were about 1.8 in the pre-crisis period, in 2014 world trade elasticity was about 0.9. Such low elasticities and their persisting downward trend could indeed represent the beginning of a de-globalization process. In simpler terms, the slowdown in world trade observed in the last three years has not only been due to a generally lower economic growth but also because trade has been much less responsive to output growth.



### Regional patterns in the trade slowdown

The trade slowdown of the last three years has been widespread across most of the developing and developed countries. Average trade growth rates for all regions are now very low and just a fraction of what they were in the pre-crisis period (Table 1). Among developing countries the trade slowdown reached all regions including the Asian powerhouses as well as more peripheral regions such as Sub-Saharan Africa. Trade growth rates have been generally negative for the Transition Economies and on average close to zero for South Asia and Sub-Saharan Africa. The weak trade performance is reflected in the much lower trade elasticities for all regions. For instance, while trade was growing 60 percent faster than GDP in East Asia before the recession, it grew 40 percent slower than GDP after 2011. Latin America is the only region where trade outpaced GDP growth in the post-crisis period, although at a substantially lower rate.

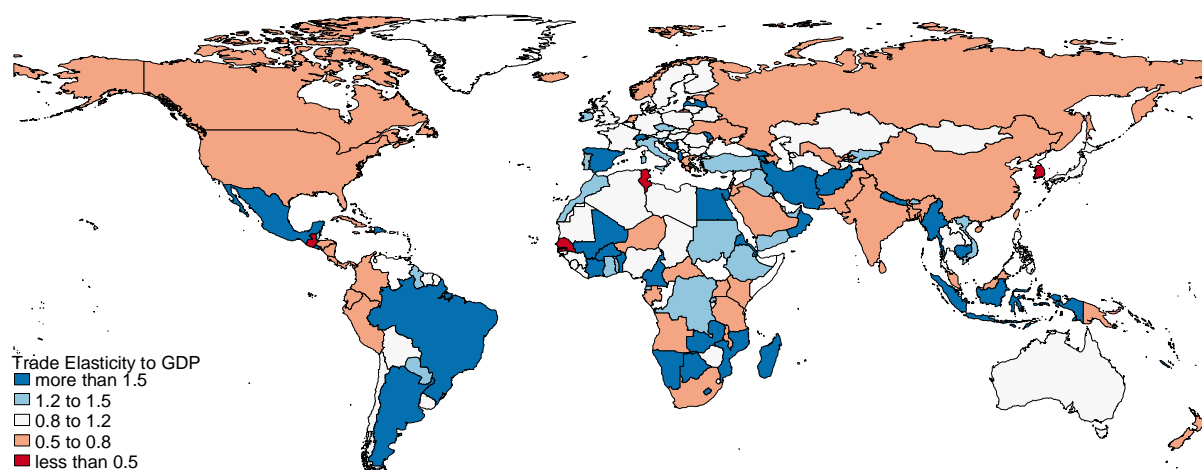


**Table 1: Trade Performance, by Region**

	Annual Growth 2003-2008	Annual Growth 2012-2014	Elasticities 2003-2008	Elasticities 2012-2014
Developed Countries	11.2%	0.7%	1.6	0.9
East Asia	15.4%	3.1%	1.6	0.6
Latin America	14.7%	1.0%	1.7	1.2
South Asia	20.4%	0.5%	1.6	0.7
Sub-Saharan Africa	17.9%	0.1%	1.6	0.8
Transition Economies	21.1%	-0.5%	1.0	0.6
West Asia/North Africa	18.9%	2.8%	1.4	0.8

Source: UNCTAD calculation based on UNCTADSTAT and COMTRADE data.

Although trade elasticities have generally been less than one, it is important to highlight that there are many countries for which trade has continued growing faster than GDP (Chart 3). Those are the countries for which trade continues to represent a key component in growth strategies. These countries include a large number of low income countries in Sub-Saharan Africa and Asia. However, trade elasticities in many of the developed countries as well as in emerging markets are now well below one. This indicates a change in the composition of demand and/or a shift away from export growth development strategies. Clearly, a relatively lower reliance on trade of the large economies has had a cascade effect on trade performance and world trade as a whole.

**Chart 3 - Trade elasticities to GDP (average 2012-2014)**

Source: UNCTAD calculation based on UNCTADSTAT and COMTRADE data.

### Causes behind the trade slowdown

The reasons for the ongoing trade slowdown are to be found in a variety of factors. While some of these factors are likely to have only temporary effects and maybe cyclical in nature, others are likely to be more long lasting and related to structural shifts. The underlining causes of the trade slowdown manifest themselves in their different effects on the various typologies of products. For example, macroeconomic cycles affect the trade of investment goods more directly. Similarly, commodity cycles are greatly reflected in the trade of primary products. Besides, structural changes in the international patterns of production should be reflected more in the trade of intermediate products, while weakness in demand should affect consumers' goods and services relatively more.

**Table 2: Trade Performance, by Product Groups**

	Annual Growth 2003-2008	Annual Growth 2012-2014	Elasticities 2003-2008	Elasticities 2012-2014
Consumers	9.8%	2.8%	1.2	1.6
Intermediates	12.7%	1.3%	1.5	0.8
Primary	20.7%	0.7%	2.5	0.4
Investment	12.2%	1.6%	1.5	0.9
Services	15.7%	4.0%	1.9	2.3

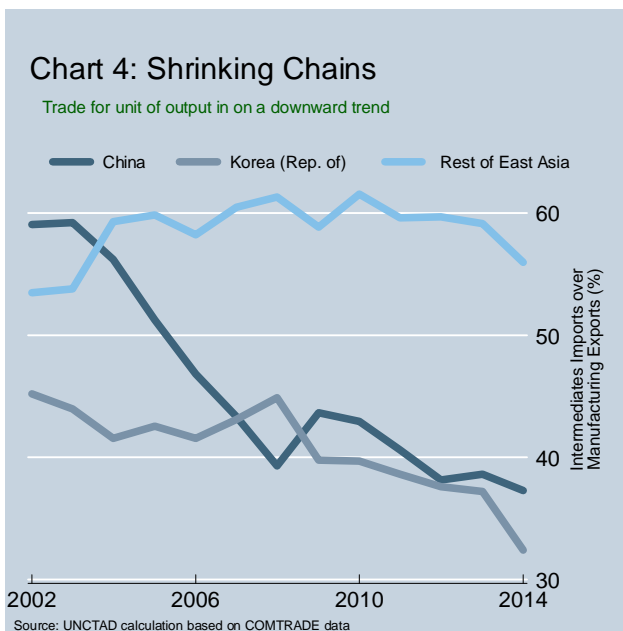
Source: UNCTAD calculation based on UNCTADSTAT and COMTRADE data.

The trade slowdown concerned all product groups, but to different extents. For example, the annual trade growth rates (in current US\$) of primary products was more than 20 percent during the period 2003-2008, but close to zero after 2012. On the other hand, the trade slowdown for consumers' products was more contained, with annual growth rates still close to 3 percent after 2012 (Table 2). Although growth rates may be informative, the trade elasticities provide better insights about some of the causes of the trade slowdown. The contribution of cyclical factors to the trade slowdown is shown by the decline in trade elasticities of primary products and investment goods. The declines in elasticities signify that commodity cycles and investment decisions are being withheld because of overinvestment and uncertainty as to the economic

situation. On the other hand, structural causes are more related to the lower trade elasticity for intermediate products. This pattern suggests a shift in the production and trade patterns of global value chains. We will discuss this more at length below. Most interestingly, trade elasticities for consumer goods and especially services have even increased with respect to pre-crisis levels. This trend may also be structural in nature and driven by increased demand for imported goods and services in developing countries. Although this may be somewhat driven by expansionary policies it may also indicate that final demand may play a relatively greater role than fragmentation in production processes for the future of international trade.

### Weakening global value chains

The exceptional growth of international trade in the last two decades was undoubtedly also a consequence of the vertical specialization brought by global value chains. The production structure of the past where goods, services, people, technology and capital remained within national borders was internationalized so as to take advantage of lower cross-border transaction costs driven by technological innovations and more open trade policies. The consequence of this process was a steady increase in trade, particularly in intermediate products. However, the global value chain production model started to slowly lose steam during the last decade and is thought to have now largely stabilized. The rationale is that the benefits from communication and information technology innovations have been already reaped, while trade liberalization and regulatory harmonization has not progressed fast enough to provide new incentives to further delocalization of production processes. Indeed these reasons are very possibly behind the lower trade elasticities for intermediate products.



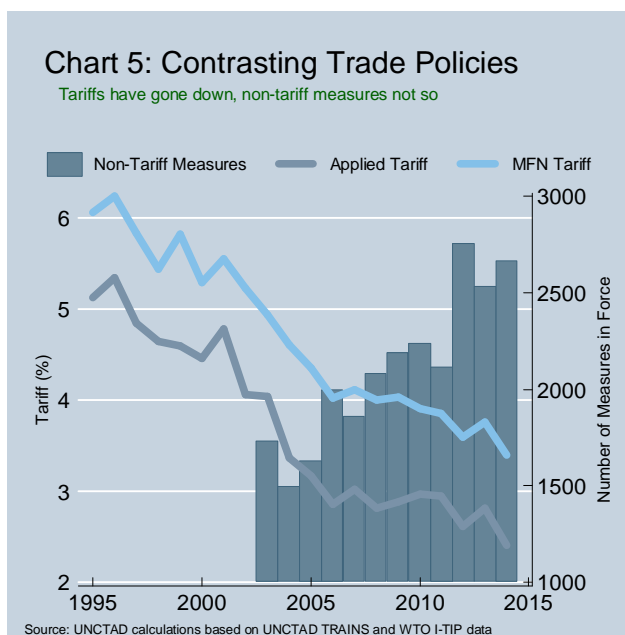
The overall decline in the vertical specialization process is most evident when examining the statistics on the trade of intermediate products, especially in relation to East Asia. In this regard, a revealing trend is the evolution of China's share of intermediates imports over its exports of manufacturing goods. This statistic, measuring the reliance of the manufacturing sector on imported inputs, declined constantly for most of the last decade, going from almost 60 percent in 2002 to less than 40 percent in 2014 (Chart 4). A similar downward trend was also experienced by the Republic of Korea. For the rest of East Asian countries, although still substantially high, vertical specialization has declined in the most recent years. These trends are likely the manifestation of an ongoing re-shoring process of overextended global value chains and of consolidation of over fragmented

production processes into geographical clusters of production. Still, the consequence of these trends is relatively lower levels of trade per unit of output. However, it may be too early to announce the end of the global value chain revolution as it still continues in some industries. As illustrated later in this report, fragmentation (as measured by trade of intermediates over total trade) is somewhat on an increasing trend in the motor vehicles sector and surely increasing in the machineries sector. Given this trend, any increase in final demand in these sectors is likely to have larger effects on international trade.



## Traditional trade policy and non-tariff measures

Patterns of international trade are clearly dependent on government interventions. Indeed, there were some concerns that protectionist behavior could have emerged during the crisis and post-crisis years, with a dampening effect on international trade. However, the empirical evidence indicates that trade policies have had only a very marginal effect for the ongoing trade slowdown. The use of protectionist policies - at least in their traditional connotation - has been neither substantially different than usual nor widespread enough to contribute substantially to the trade slowdown. At the same time it is also true that there has been little progress in the trade liberalization process in the most recent years. Indeed, tariff liberalization while substantial between 1995 and 2005 has been more marginal since then (Chart 5). More importantly, during the last decade there has been a rapid increase in policies which, although not having trade in their sight,



have strong implications for international trade. For example, subsidies for domestic industries and other measures to limit delocalization of jobs abroad have generally been on the rise in the post-crisis years. The effects of these policies are likely to be negative on trade. More in general, international trade is increasingly regulated by a wide array of non-tariff measures (sanitary and phytosanitary standards, technical barriers to trade, quotas, contingency measures and such). Those measures, although with non-protectionist intents, are likely to have important implications for international trade both in terms of increasing trade costs and of trade diversion effects. Research on the effect of these types of measures is still in its infancy; but it is still very plausible that such increases of regulatory measures (and the difficulty for many countries to comply with them) may have been contributing at least in part to the trade slowdown.

## What implications for developing countries?

Whether the slowdown in trade is going to continue has important implications for many developing countries, especially those export oriented development strategies. Persistently low growth rates in developed and emerging markets would have implications for the ability of many countries to reap the opportunities of international markets, and therefore to replicate (or continue) export oriented development strategies that have been so successful in the past. Although there is no definitive answer to whether the low rates of trade growth of the last few years is a temporary phenomenon or represents a new norm, it is clear that both short-term cyclical causes and long-term structural factors are at play. Still, there are reasons for believing that the trade growth rates of the last few decades will not be repeated anytime soon. Among those, the technological innovations and trade reforms which so much contributed to the trade expansion during the last two decades are unlikely to be replicated in the near future. Dampening effects on trade growth are also related to a structural shift in demand away from manufacturing towards non-tradable goods. In this regard, the general consensus is that trade growth should resume to some degree but at levels more in line with global GDP growth than in the past, at least for the medium term.

As usual, it is very difficult to make predictions, but there are still valid reasons to believe that trade growth in the future will be fueled by different factors than in the past. This implies that developing countries willing to benefit from international trade should adapt their trade strategies by taking into account some of the early signals from the latest trends in international trade. For instance, trade in services may very well represent the engine of trade growth in the coming years. Indeed, technological innovations and the large scope for

increasing competitiveness in the service sector could provide incentives similar to those behind the surge of manufacturing trade in the past. Another important element is that the dominance of large firms in driving international trade may have reached a plateau. If this trend continues, future trade growth could be fueled also by an increased participation of more dynamic small and medium enterprises in international trade. Facilitating trade for such companies and the implementation of technologies easing cross-border transaction costs for smaller players are essential factors for this to happen. Finally, the potential for trade growth will be relatively less about South-North and more about South-South trade. Indeed, the scope for further economic interdependence is still strong in many regions of the world, especially in relation to intra-regional trade. The possibility for increasing trade in South Asia, Latin America and especially Sub-Saharan Africa is still very large. In this regard, supply chain models are still rather underdeveloped in many regions, and there is large room for developing countries' firms to benefit from such models.

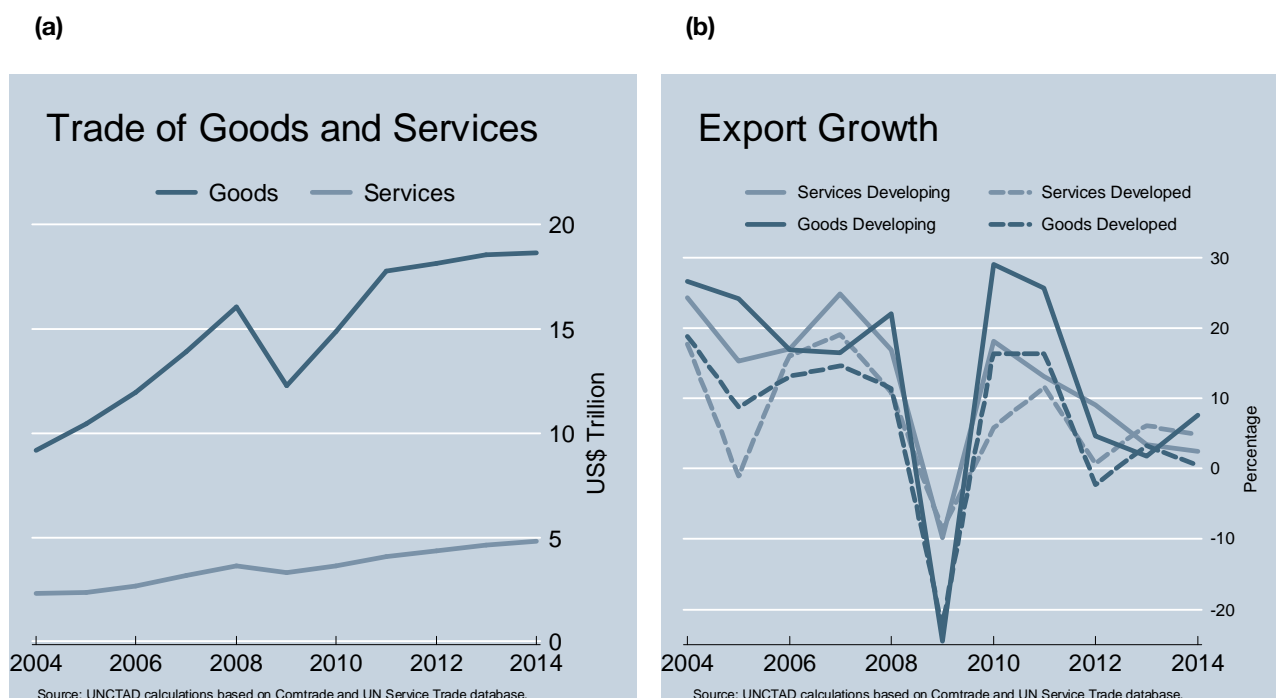
Although there is going to be lot of uncertainty surrounding the evolution of world trade in the coming years, it is most likely that the factors and the policies that helped fuel trade growth in the past have exhausted most of their effect. For trade to resume growing at the rates of the last few decades, governments need to advance a forward-looking trade agenda. Among the issues to address, reaching a balanced outcome on services liberalization, regulatory harmonization and tackling the multiplicity of behind-the-border issues influencing international trade would surely allow both developing and developed countries to benefit from the opportunities brought by international trade.



## 2. TRENDS IN INTERNATIONAL TRADE

International trade largely relates to physical goods. Although increasing, trade in services accounts for a much lower share. As of 2014 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.

**Figure 1**  
Values and growth rates of world trade in goods and services

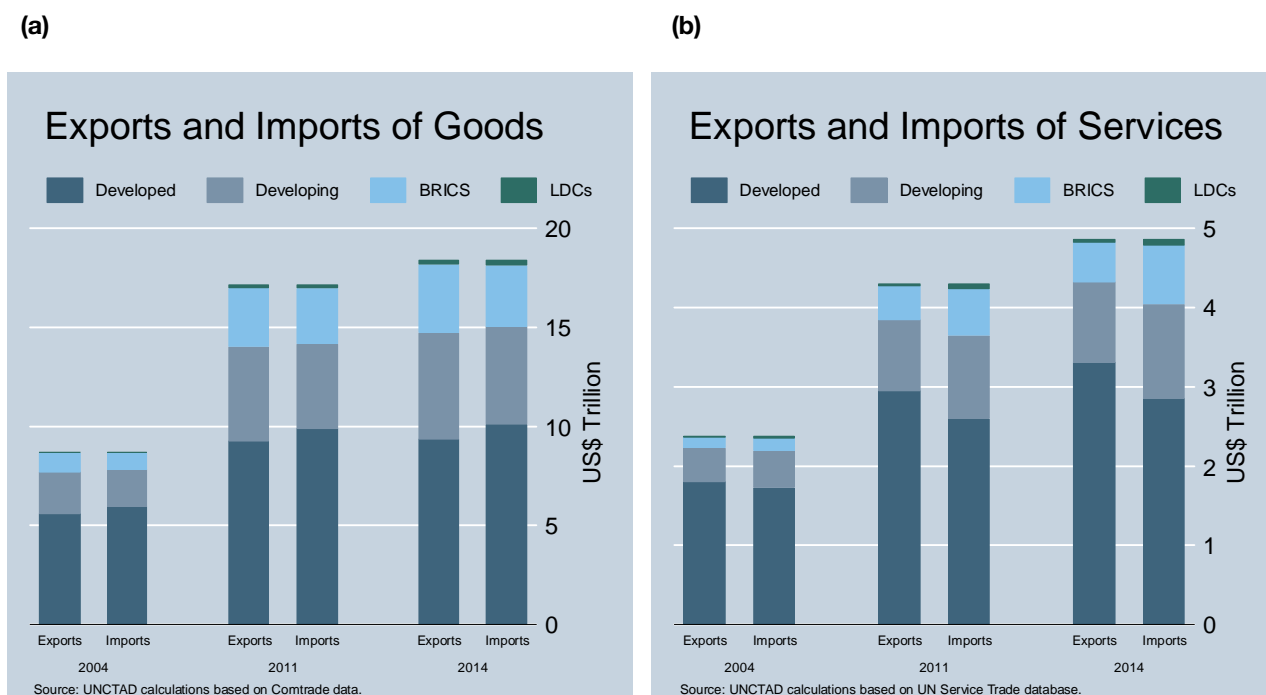


International trade can be broadly distinguished between trade in goods (merchandise) and services. The bulk of international trade concerns physical goods, while services account for a much lower share. World trade in goods has increased dramatically over the last decade, rising from less than US\$ 10 trillion in 2004 to more than US\$ 18.5 trillion in 2014. Trade in services has also greatly increased between 2004 and 2014 (from just above US\$ 2 trillion to almost US\$ 5 trillion). As of 2014, 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 (in current US\$) are now at much lower level than in the pre-crisis period. (Figure 1b). The slowdown has also largely affected developing countries' growth rates which have been below these of developed countries in some of most recent years, especially in relation to services.



Developed countries account for about half the value of global trade in goods and about two-thirds of trade in services. BRICS account for an important share of trade in goods and services, although less than developed and developing countries. LDCs only account for a very small share in overall trade.

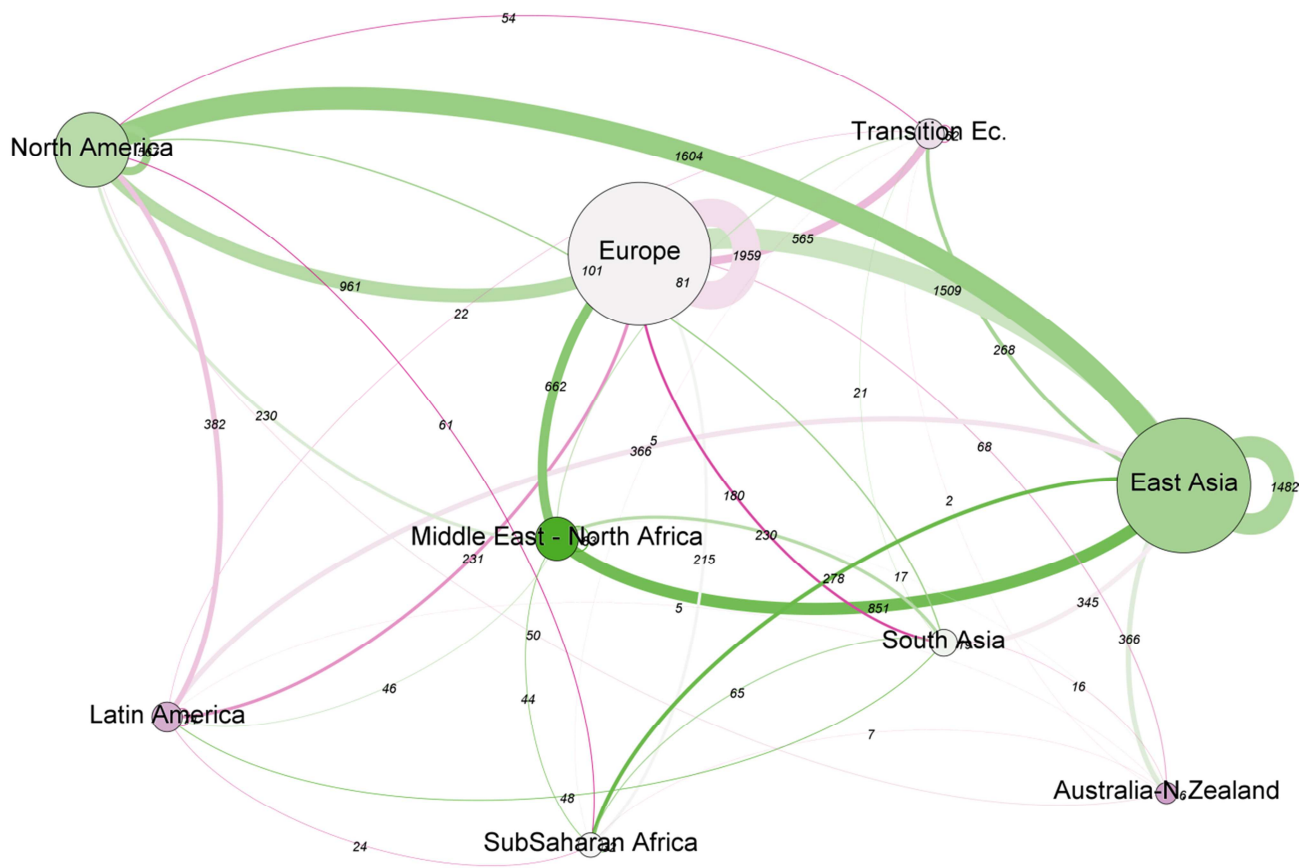
**Figure 2**  
Values of trade in goods and services by region



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 2014 developed countries' exports and imports of goods reached about US\$ 10 trillion (Figure 2a), while that of services added up to around US\$ 3 trillion (Figure 2b). The share of world trade of goods and services attributed to BRICS has grown over time, remaining however below the share of developed and developing countries. In 2014 BRICS traded more than US\$ 3 trillion in goods and imported over US\$ 700 billion in services whilst exporting around US\$ 500 billion. In LDCs trade has been much lower although increases in exports and imports of these countries have been recorded over the past decade, albeit from much lower starting points.

A very large part of world trade is clustered around three regions: North America, Europe and East Asia. Other regions' contribution to world trade is much lower. In addition, recent trends indicate that such a pattern has strengthened. On one hand, trade flows have generally grown for the core regions since 2011, especially those relating to East Asia. On the other hand, the value of trade flows has often shrunk in the periphery, especially for Latin America.

**Figure 3**  
Trade flows across regions



Source: UNCTAD calculations based on Comtrade data

The trade network map illustrates the importance of trade between and within regions as well as trade growth between 2011 and 2014. The numbers illustrate two-way trade between regions in billions of USD, the width of the corresponding lines also reflecting the magnitude of trade whereas the size of the nodes reflects total exports in each of the regions. The colors of both the lines and the nodes reflect growth rates between 2011 and 2014, with green for increases and red for decreases. Darker colors are associated with higher positive or negative growth rates. World trade is largely concentrated in three main regions: North America, East Asia and Europe. For the latter two the value of intra-regional trade is quite substantial. Since 2011, trade has grown most for East Asia, North America and for the Middle East and North African region. For the other regions the value of international trade has remained constant or has shrunk. In regard to trade flows, trade in main networks has generally grown further since 2011 (e.g. trade between North America and East Asia, between East Asia and Europe, and between North America and Europe) while smaller trade flows have generally shrunk further. Trade relating to East Asia has generally grown, while trade relating to Europe has often shrunk. A negative growth of trade was also observed within Europe.

**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 trade flows in goods, by importing and exporting regions

Values in 2014														
Imp \ Exp	Developed		East Asia		Transition Economies		Latin America		West Asia and North Africa		South Asia		Sub-Saharan Africa	
Developed	6031	602	2054	83	387	14	670	117	561	17	174	15	165	24
	658	4612	91	1855	275	92	148	388	362	178	20	139	91	49
East Asia	1562	121	2198	86	112	5	188	53	421	2	107	11	138	6
	144	1226	226	1873	81	27	77	58	361	57	43	53	74	31
Transition Economies	273	27	117	6	125	19	12	10	23	4	7	2	2	1
	12	225	1	110	40	63	0	1	1	18	0	5	1	0
Latin America	575	49	261	4	13	0	190	37	21	0	18	0	17	0
	85	430	2	250	3	7	42	110	11	9	4	13	15	1
West Asia and North Africa	526	52	249	10	58	12	31	19	167	23	85	11	13	4
	37	425	3	236	11	23	3	7	40	96	20	46	1	8
South Asia	146	9	209	15	14	4	38	7	145	1	40	8	37	2
	11	123	21	171	3	6	28	3	110	34	13	18	28	8
Sub-Saharan Africa	144	17	115	10	3	1	10	4	32	2	28	4	66	11
	22	96	7	92	0	2	1	4	17	12	9	14	25	30

Values in 2011														
Imp \ Exp	Developed		East Asia		Transition Economies		Latin America		West Asia and North Africa		South Asia		Sub-Saharan Africa	
Developed	5994	570	1934	83	435	11	685	115	595	16	188	13	218	24
	691	4590	100	1725	322	96	195	361	406	170	47	126	138	55
East Asia	1533	94	1848	70	103	3	180	41	372	1	129	7	110	4
	150	1259	232	1534	67	32	80	59	316	55	71	51	64	25
Transition Economies	266	29	103	5	164	14	15	11	21	4	8	2	3	2
	11	224	1	97	64	62	1	2	1	16	0	6	1	1
Latin America	539	44	242	4	14	0	216	37	19	0	14	0	21	1
	74	415	4	231	3	9	48	131	11	7	4	10	17	2
West Asia and North Africa	404	44	141	8	55	8	30	19	89	14	46	8	8	2
	28	327	1	131	11	21	4	6	23	51	5	22	1	5
South Asia	181	9	181	15	11	1	20	4	168	5	38	6	34	2
	13	150	20	138	3	7	13	3	107	55	16	16	22	9
Sub-Saharan Africa	148	22	86	9	3	1	20	13	26	2	24	3	50	8
	16	104	4	72	0	2	1	5	13	10	9	12	17	25

Values in 2004														
Imp \ Exp	Developed		East Asia		Transition Economies		Latin America		West Asia and North Africa		South Asia		Sub-Saharan Africa	
Developed	4126	337	1051	42	157	5	373	61	283	10	84	6	101	14
	281	3369	44	951	90	59	80	222	169	102	18	60	45	39
East Asia	730	35	804	26	29	1	40	12	97	0	35	3	23	1
	23	668	62	713	8	20	10	19	81	15	17	15	14	8
Transition Economies	97	11	15	1	57	6	4	3	5	1	2	1	1	0
	2	83	0	14	18	26	0	1	0	4	0	1	0	0
Latin America	273	20	65	1	6	0	83	13	7	0	3	0	6	0
	13	238	1	60	3	3	18	51	4	2	0	2	5	1
West Asia and North Africa	209	17	40	3	20	1	9	5	32	4	11	2	4	1
	6	182	0	36	6	11	1	2	10	17	2	7	1	2
South Asia	65	3	38	4	5	0	3	2	22	1	9	2	4	1
	2	58	3	31	1	4	1	1	7	14	2	5	0	3
Sub-Saharan Africa	64	7	22	2	1	0	4	2	8	0	6	1	17	3
	3	50	0	19	0	1	0	2	5	2	3	3	6	9

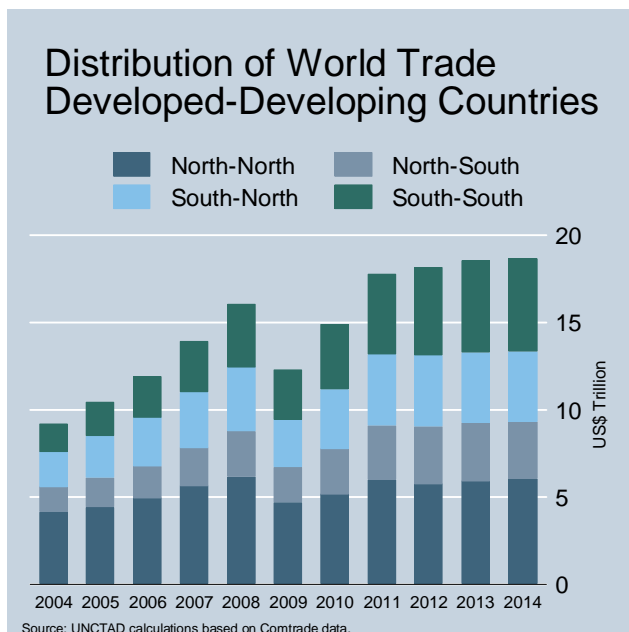
The three tables present the value of world trade in goods in 2014, 2011 and 2004 across geographical regions. The number given in the top left of each cell shows the overall traded value in US\$ billions. The upper right figure in each cell depicts the overall traded value in agriculture, the bottom left is natural resources and bottom right manufactures.

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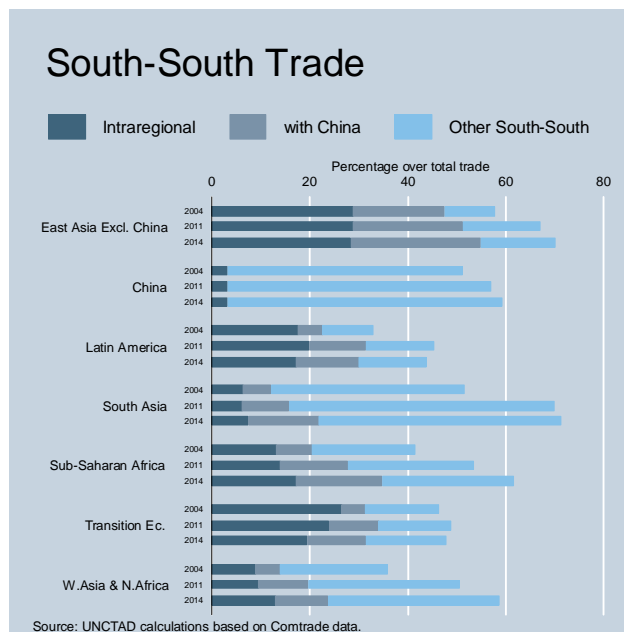
International trade in goods is increasingly linked to imports and exports of developing countries. South-South trade has promptly rebounded from pre-crisis levels, and reached almost US\$ 5 trillion in 2014. South-South trade flows have mainly increased over the last decade, which is in part due to the increase of trade with China.

**Figure 4**  
Trade in goods between/within developed and developing countries

(a)



(b)

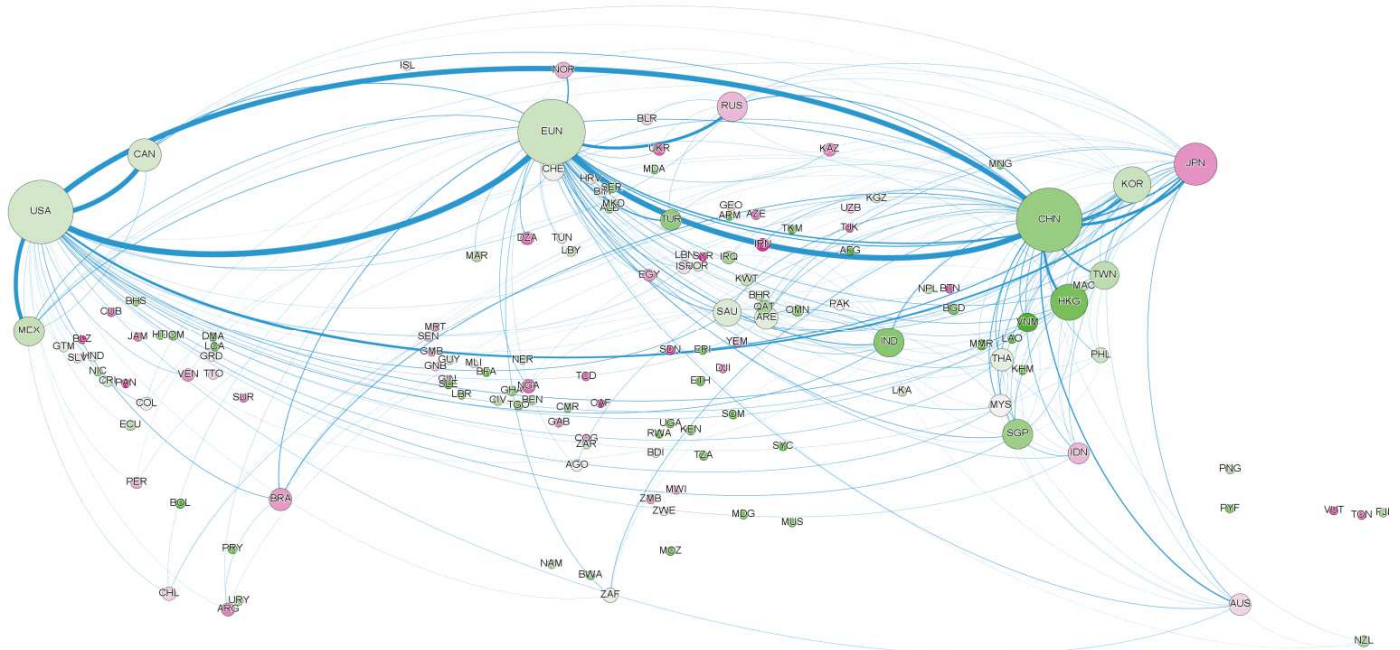


The increase in world trade between 2004 and 2014 has largely been driven by the rise of trade between developing countries (South–South) (Figure 4a). By 2014 the value of South–South trade had reached almost US\$ 5.5 trillion, a magnitude close to that of trade between developed countries (North–North). Of note is that in 2014 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 2014. Figure 4b denotes the contribution of South–South trade over total trade and further decomposes it amongst intraregional flows related to China and other South–South trade. The significance of South–South trade flows for developing countries is evident when considering that in 2014, they represented more than half the trade of developing country regions (imports and exports) (Figure 4b). This share varies by region, ranging from 40 to 50 per cent in Latin America and transition economies, to around 70 per cent in South Asia and East Asia. Although a certain proportion of South–South trade encompasses intraregional flows, an important part involves trade with China. Since 2004 China has become an increasingly important partner for all other developing country regions.



World trade occurs largely within the three main hubs: the EU, the USA and China. Although China represents the major hub for the Asian region, East Asian trade is also well integrated with the USA and the European economic area. Other countries remain marginalized and, at best, connected only to one hub. While trade has generally increased for the larger economies, it has often shrunk for a large number of smaller countries.

Figure 5  
Trade flows across countries

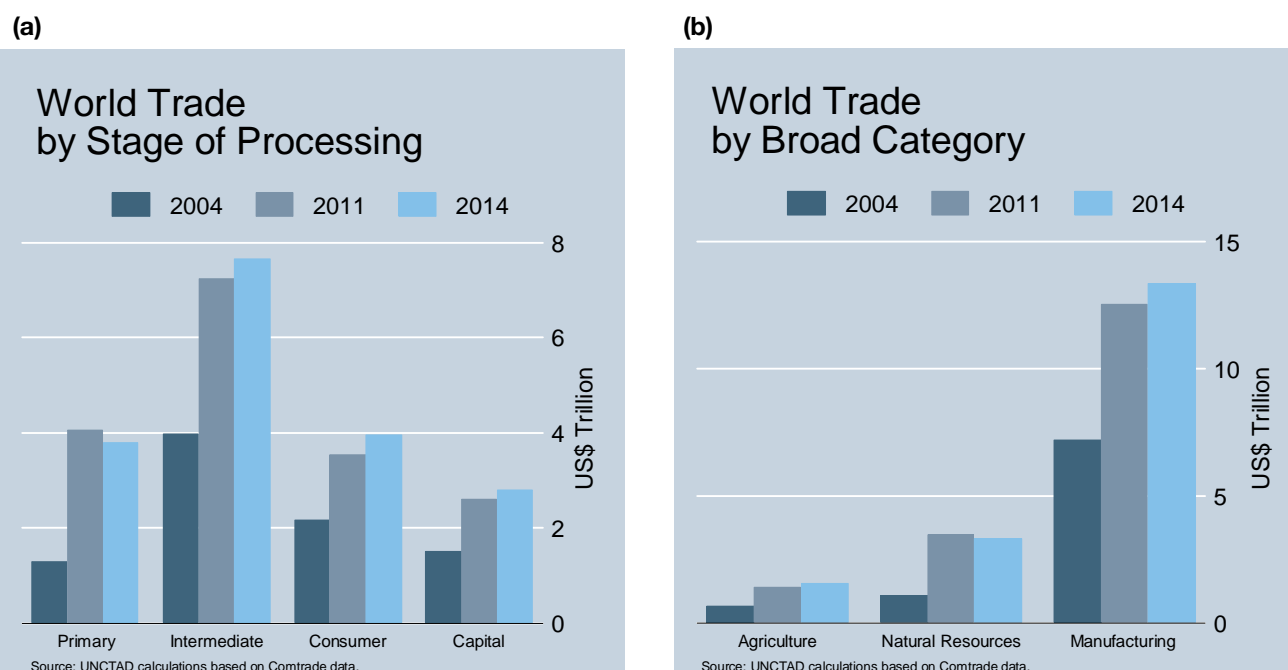


Source: UNCTAD calculations based on Comtrade data.

This map illustrates countries' exports and bilateral trade for 2014. The width of the lines reflects the value of two-way trade between countries (only trade above 5 million USD is illustrated). The size of the nodes reflects the total value of exports and their color reflects positive (green) or negative (red) growth rates between 2011 and

Intermediate products represent the largest flow of world trade (almost US\$ 8 trillion in 2014). Trade in primary products, slightly declining between 2011 and 2014, has just dropped below consumer products (about US\$ 4 trillion). Differentiating by broad category, world trade in goods largely comprises of manufacturing products (above US\$ 13 trillion), while the value of agricultural trade is appreciably lower (less than US\$ 2 trillion).

**Figure 6**  
Values of world trade in goods by stage of processing and broad category

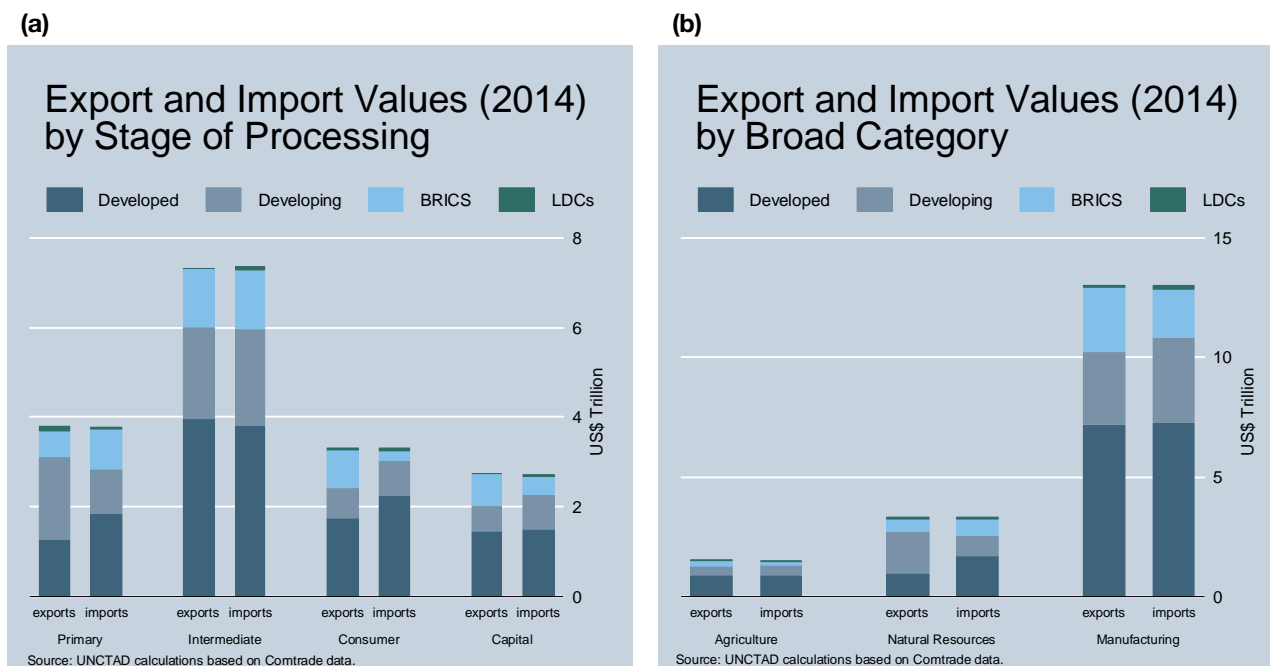


International trade in goods can be differentiated by stage of processing depending on their intended use along the production chain. Goods are therefore classified as primary, intermediates, consumer and capital (the latter comprising machinery used for the production of other goods). Goods can also 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 just under US\$ 4 trillion in 2004 to about US\$ 7.5 trillion in 2014 (Figure 6a). Trade in consumer and capital products has also increased, but to a lesser extent, and trade in primary products slightly fell between 2011 and 2014. With a value of over US\$ 13 trillion in 2014, trade in manufacturing goods holds a dominant position over trade in natural resources and agricultural products, both in terms of magnitude and growth (Figure 6b). Since 2011, the value of international trade has increased in all categories, with the exception of in primary products and natural resources, largely stemming from a downward trend in prices of many commodities.



*Participation in international trade varies significantly among developing regions. BRICS countries account for an important 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.*

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



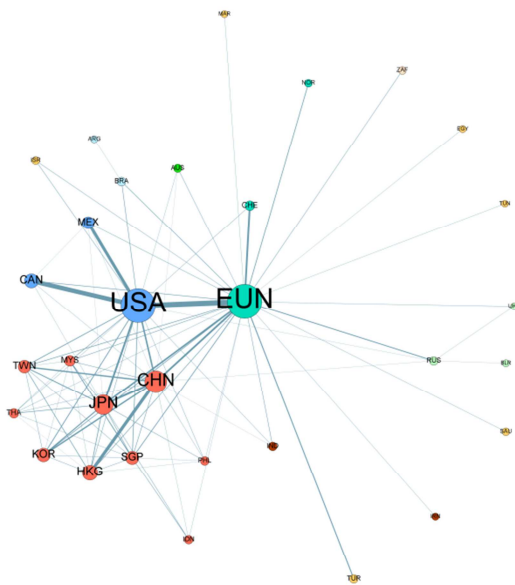
Developed countries account for the bulk of world trade, both in terms of goods differentiated by stage of processing and broad category (Figures 7a-7b). Besides other developing country regions, a significant amount of trade is linked to BRICS, especially in relation to the trade of intermediates and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



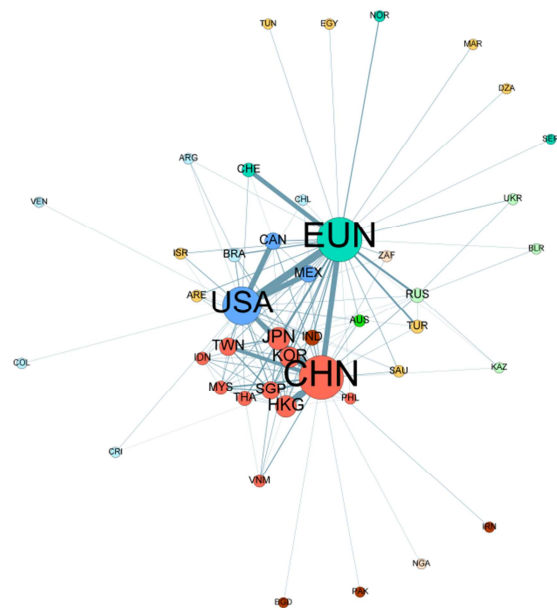
Trade networks relating to global value chains have evolved during the last 10 years. In 2004, the East Asian production network was still in its infancy. Most trade flows of parts and components concerned the USA and the European Union, with a number of other countries loosely connected with these two main hubs. As of 2014 trade of parts and components was much more developed. The current state is characterized not only by the prominent role of China, but also by a much more tightly integrated network with a much larger number of countries many of which have multiple connections to different hubs.

**Figure 8**  
Evolution of trade networks in parts and components

(a) 2004



(b) 2014



Source: UNCTAD calculations based on Comtrade data

Figure 8 illustrates trade networks of parts and components (intermediates in manufacturing sectors) in 2004 (Figure a) and 2014 (Figure b). The two figures allow us to illustrate the participation in production sharing and how it has evolved over time. The size of the nodes reflect the market share and the width of the lines the importance of bilateral trade (only trade above US\$ 5 million is considered). Both figures illustrate the relative importance of networks. Many Asian countries, and in particular China, have increased their share in the trade of intermediate goods to become important actors along the value chain. Trade of intermediates has increased between Europe and the USA, but what is striking is the increase of these two countries' trade with China.



With around 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. Over the past decade developing countries have increased the exported share in all sectors.

**Figure 9**  
Values of world trade in goods by sectors

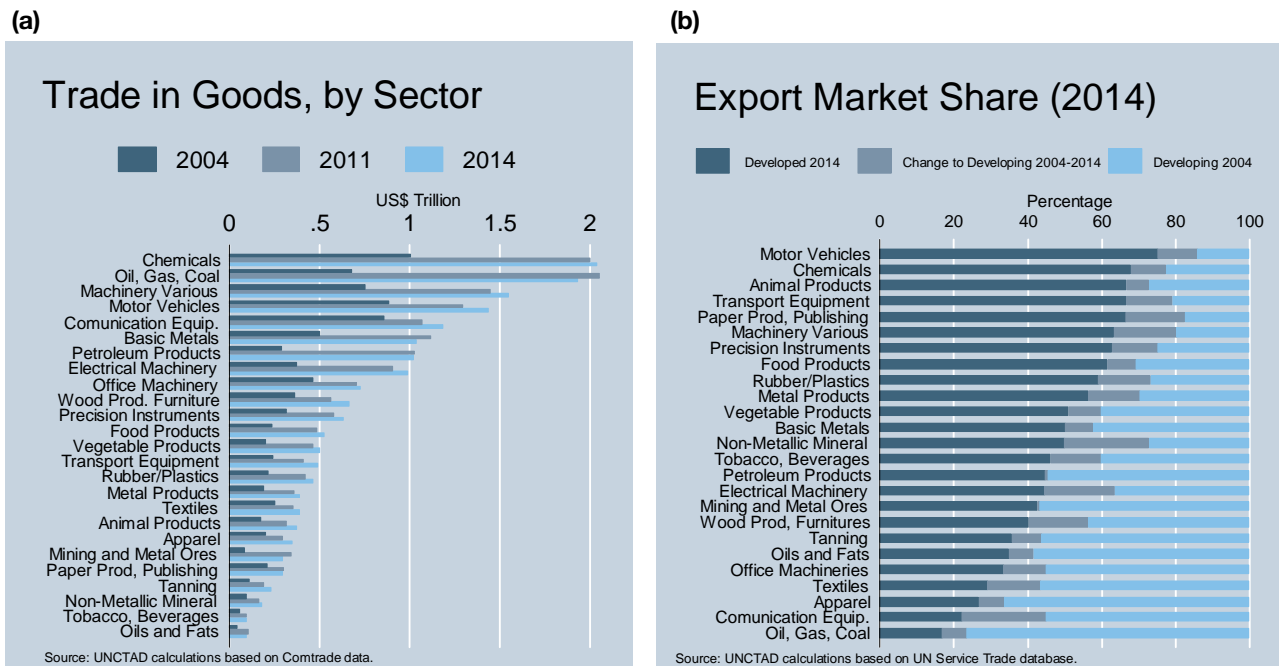
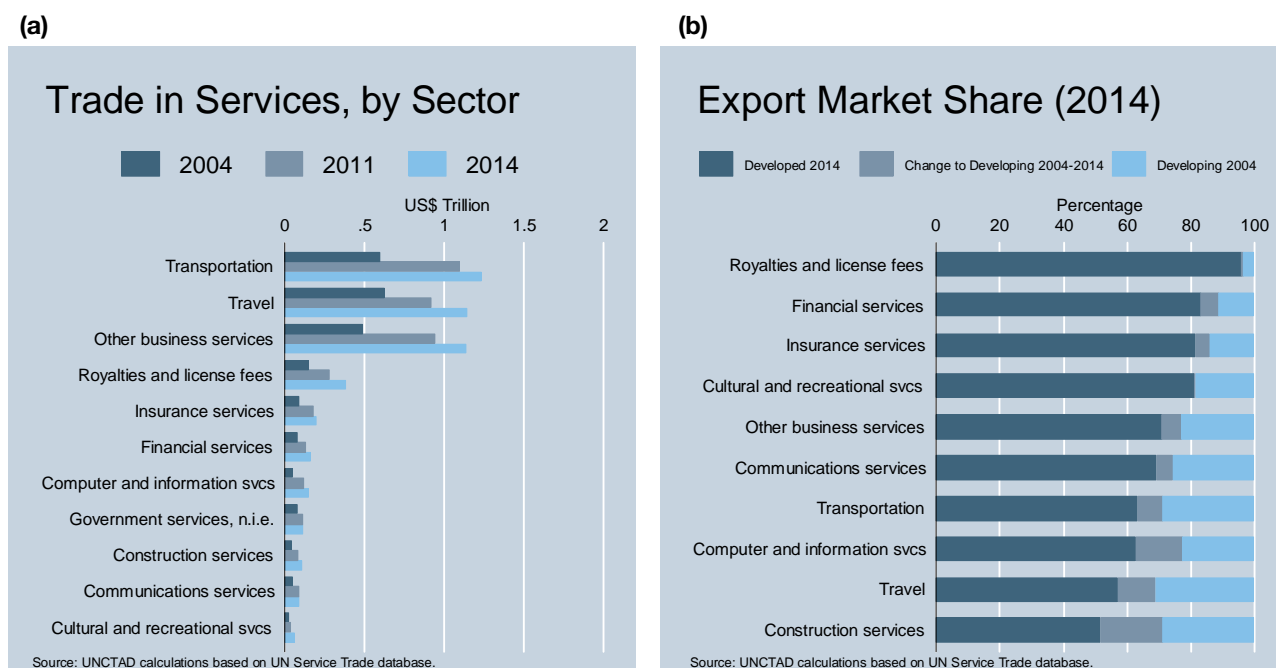


Figure 9a displays the value of world trade in 25 categories of goods. In terms of value, a large amount of world trade relates to energy products (oil, gas, coal and petroleum products). The value of trade is also substantial for chemicals, machineries, communication equipment and motor vehicles. The value of trade flows in energy products has typically increased between 2004 and 2011 before slightly decreasing in 2014, with oil, gas and coal representing a value of just under US\$ 2 trillion in 2014, with an additional US\$ 1 trillion in petroleum products. Trade in chemical products represented just over 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 over US\$ 1.5 trillion of trade flows, or less than 10 per cent of international trade. The export market share has increased in developing countries in all sectors (Figure 9b), and in particular in machinery, non-metallic minerals and communication equipment.

World exports of services are mainly dominated by transportation, travel and other business services and have strongly increased over the last decade. Developing countries have increased their share of trade in services in all sectors. Developed countries remain the exporters in all sectors but developing countries are becoming large suppliers to international markets with regard to construction services, travel and transportation as well as computer and information services.

**Figure 10**  
Market shares of trade in services of developing and developed countries by sector



With regard to services, transportation, travel and other business services represent the largest sectors, amounting to more than US\$ 1 trillion each in 2014. Other important sectors include royalties and license fees, and finance related services. Since 2004 the value of trade has increased fairly steadily in all sectors, although some have slightly retracted since 2011. Figure 10b depicts the share of global exports of different service categories pertaining to developed and developing countries, and their change between 2004 and 2014. International supply across categories of services tends to be associated with a nation’s level of development. The share exported by developing countries increased in all sectors between 2004 and 2014, although only very slightly in royalties and licence fees and cultural and recreational services. In terms of the export market shares, international markets are largely supplied by developed countries (the only exception is construction services where the market share is more or less equally divided). For instance, developed countries supply more than 95 percent of the world’s trade of royalties and licence fees, and around 80 percent of financial and insurance services.



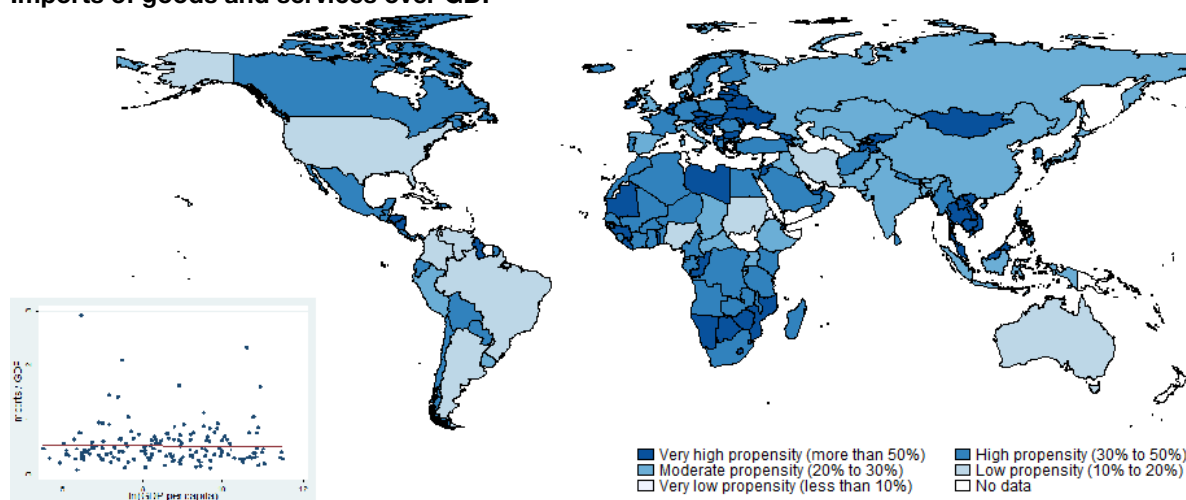
### 3. TRADE INDICATORS

The following section presents a series of trade indicators where the magnitude of the indicator is represented by the shading of the country on the world map. Data for goods comes from Unctad Stat and Comtrade whereas data on services comes from the UN Service trade database. The maps are accompanied by a scatter with a fitted line illustrating the relationship between the indicator (on the y axis) and the logarithm of GDP per capita (on the x axis).

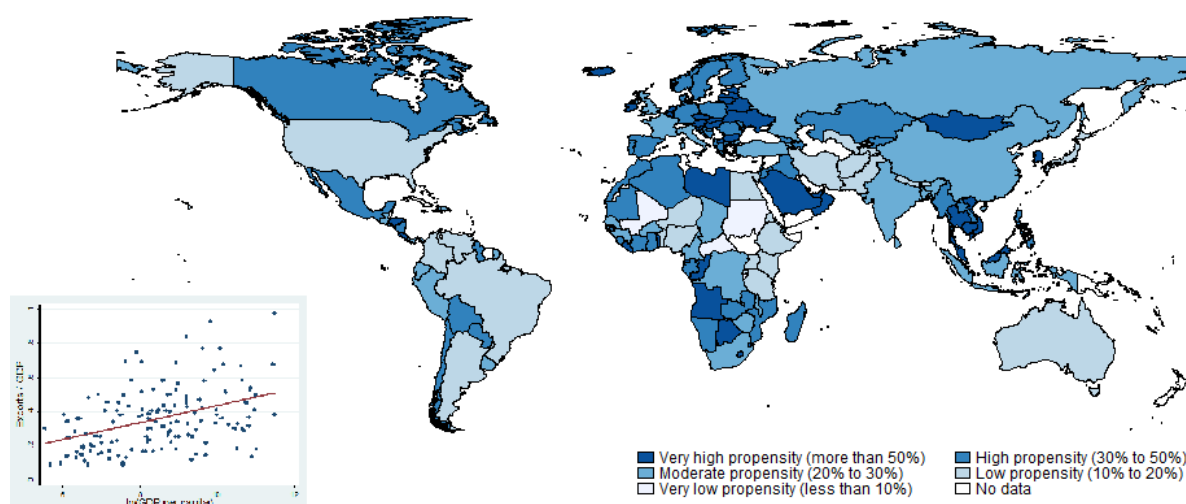
For a substantial number of developing countries, gross domestic product (GDP) is closely dependent on the exports of goods and services to foreign markets. This is particularly true for many East Asian economies, Eastern European countries and for a number of African countries as well as Canada and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

#### Index 1 - Import and export propensity

##### Imports of goods and services over GDP



##### Exports of goods and services over GDP

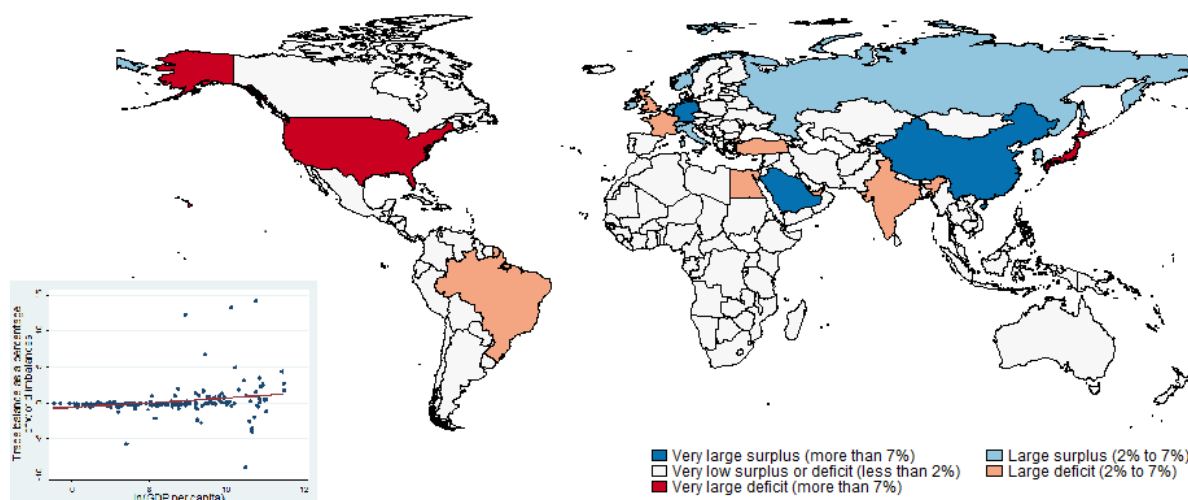


The import and export propensity are computed as the value of imports or exports divided by the current gross domestic product (GDP). The import propensity expresses the total income spent on imports. The export propensity shows the overall degree of reliance of domestic producers on foreign markets. Higher values imply greater dependence on foreign markets.

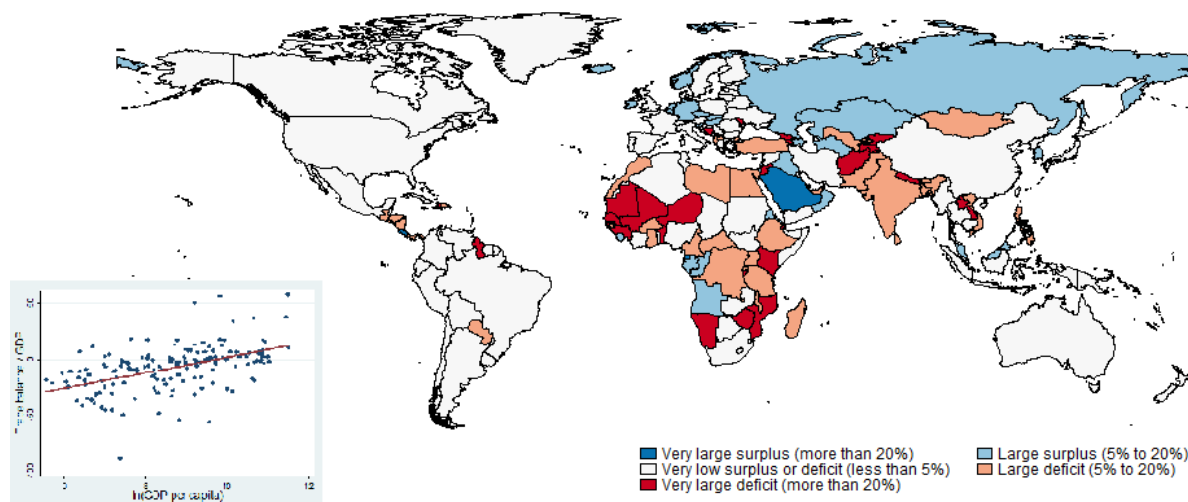
World trade is largely unbalanced. China, Germany and energy exporting countries maintain large surplus positions. Primarily the USA, but also a number of developing and developed countries maintain large deficit positions. Even though these imbalances are sometimes large in levels, they often tend to be low relative to gross domestic product (GDP). In contrast, many African countries' trade imbalances tend to be quite large relative to their GDP.

**Index 2 – Trade balances**

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



Trade balances of goods and services as percentage of GDP



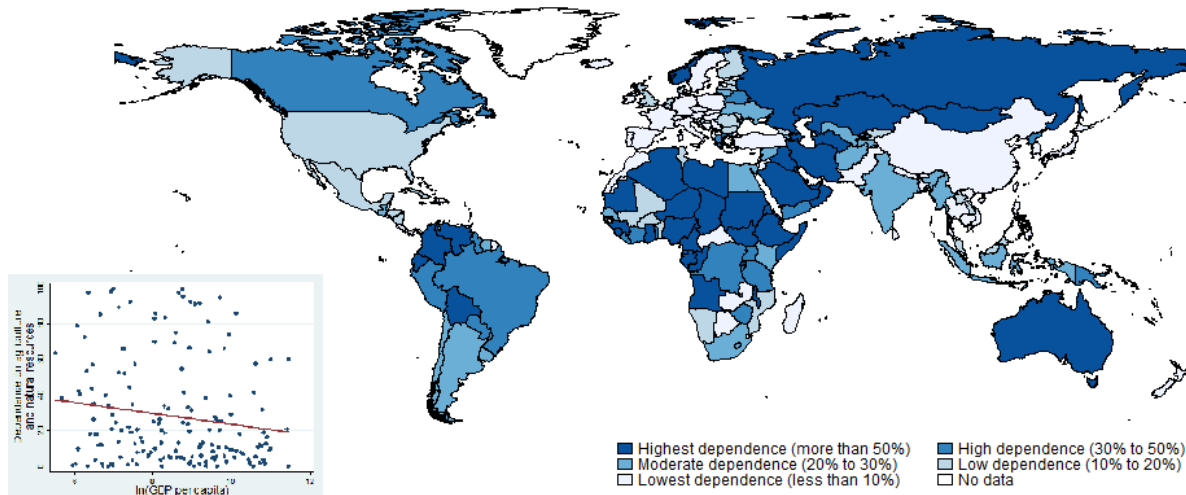
Foreign trade balances (exports minus imports of goods and services) as a percentage of total world imbalances are computed as each country's share of world total imbalances. Negative values denote countries in deficit, while positive values denote countries with a surplus. It indicates how world imbalances are distributed across countries. The foreign trade balance-to-GDP ratio is the ratio of the foreign trade balance to GDP. It indicates how large trade imbalances are relative to the size of the economy. It is negative if a country imports more than it exports, and more so if GDP is relatively small. It is around 0 if the exported value is about the same as the imported value. It is positive if exports are larger than imports.



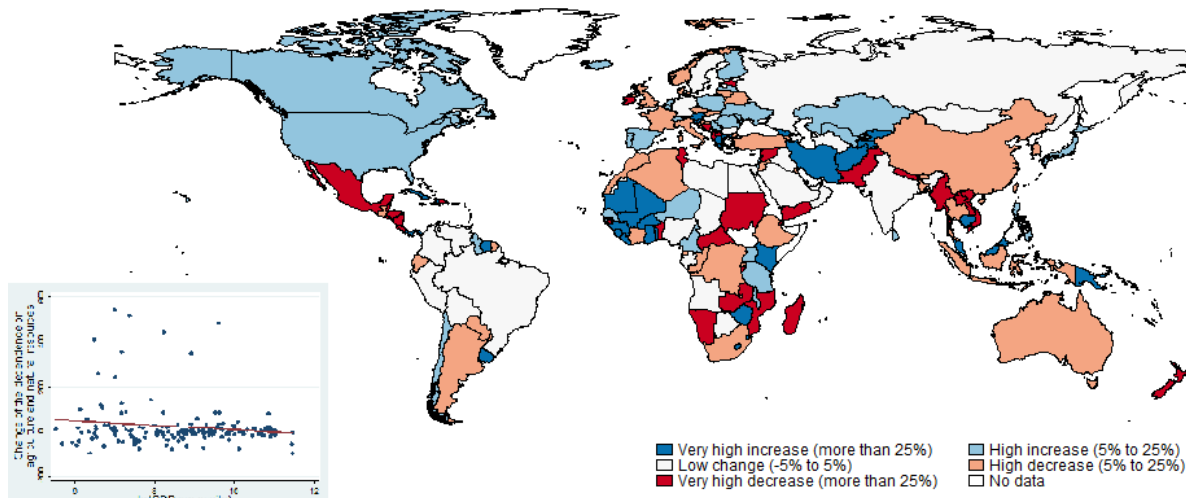
Although many countries are striving to diversify their exports, agriculture and natural resources still represent a large share of export baskets of many developing countries. Commodity dependence is more evident for energy exporting countries in the Middle East, raw material suppliers in Africa as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

### Index 3 – Commodity export dependence

#### Agricultural and natural resources dependence index



#### Change of the export commodity dependence (2011-2014)

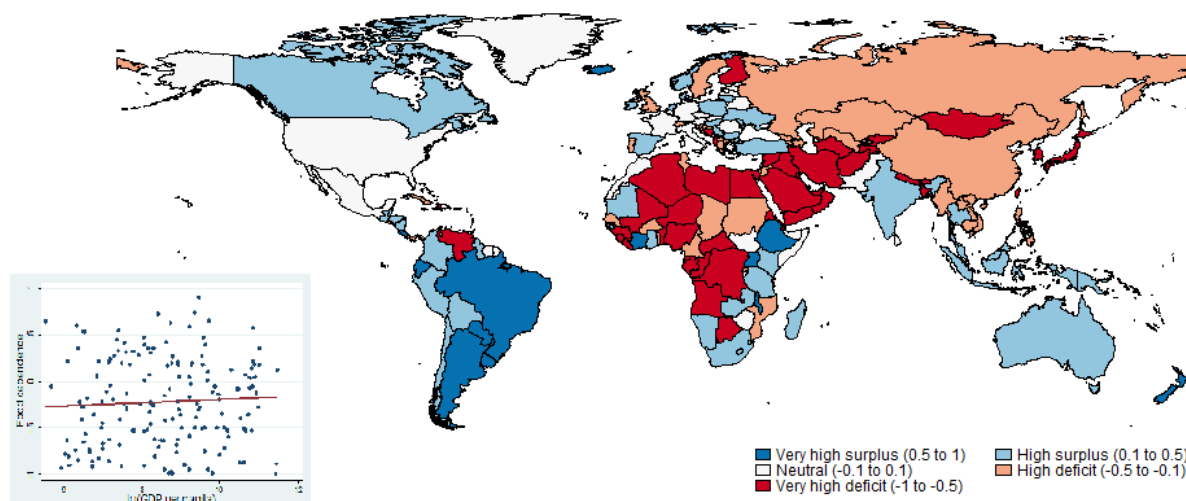


The commodity dependence index is computed as the share of the value of exports in primary products consisting of agricultural goods and natural resources over the total value of exports. It varies from 0 to 100. High dependence implies more exposure to shocks in the prices of natural resources and agricultural commodities.

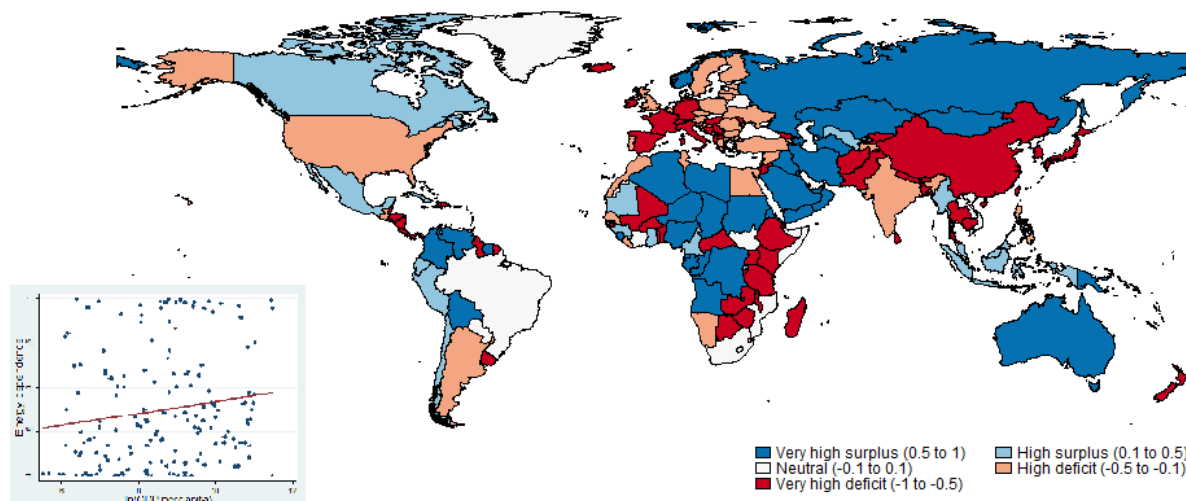
Geography, demographics and policy choices result in deficit or surplus positions in terms of agricultural trade. In general, countries in Latin America, East Africa and South Asia are net food exporters, while most of the rest of Asia and Africa remain net food importers. Most developed countries as well as many developing countries (East and South Asia and East Africa) are dependent on imported energy. In contrast, West and Central Asia as well as most of Africa and Latin America are net energy exporters.

#### Index 4 - Food and energy dependence index

##### Food dependence index



##### Energy dependence index



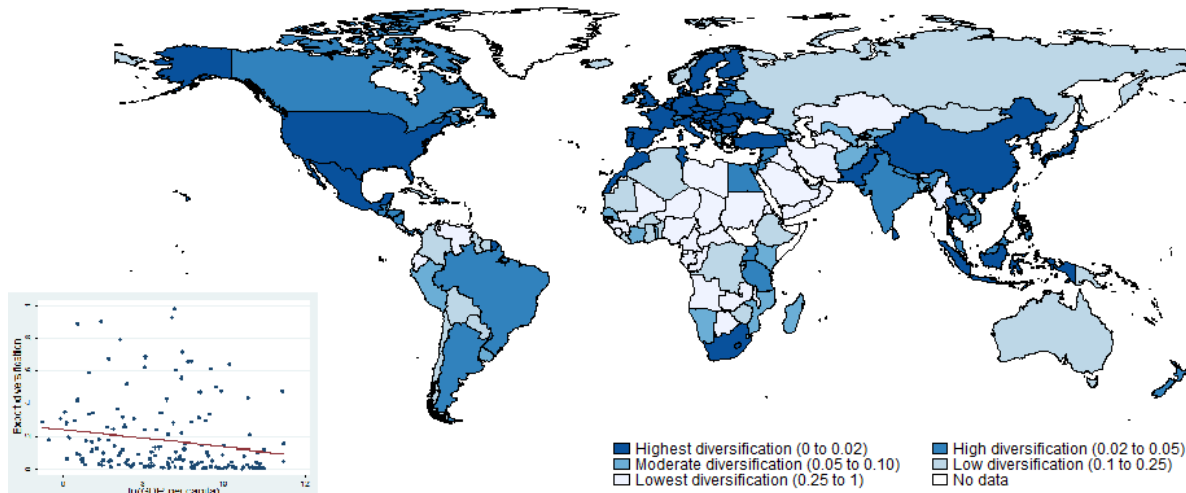
Food dependence is computed as a country's exports of agricultural products minus its imports of agricultural products. This is then normalized by dividing it by its agricultural trade (imports plus exports). The index varies between -1 and 1, with positive values meaning that the country exports more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



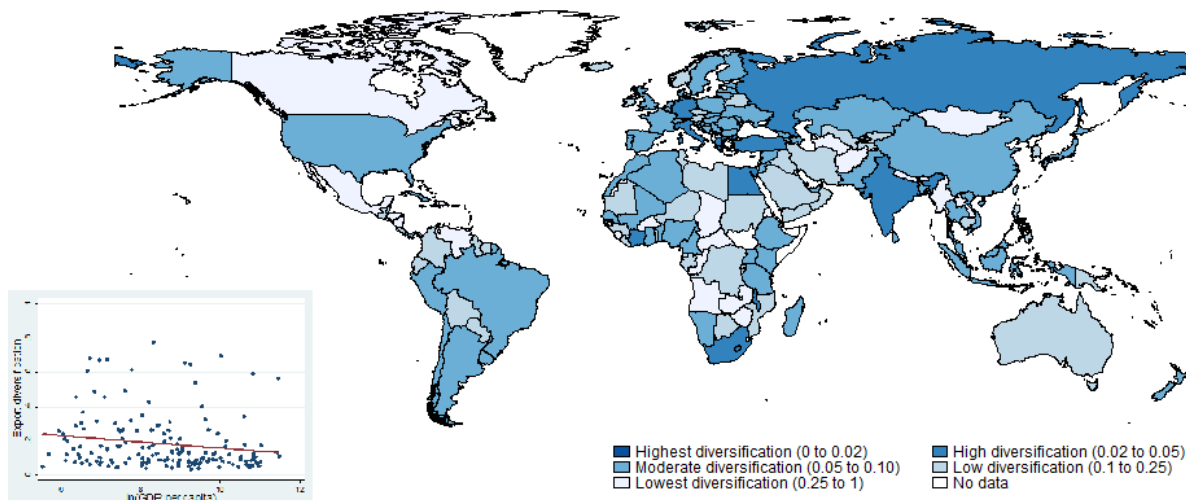
Although many developing countries seek to diversify their exports, many do not succeed. Amongst developing countries only a few emerging economies have reached levels of diversification similar to those of developed countries. African countries remain quite vulnerable to external shocks as their exports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

**Index 5 – Export diversification**

**Export diversification index, by product**



**Export diversification index, by destination**

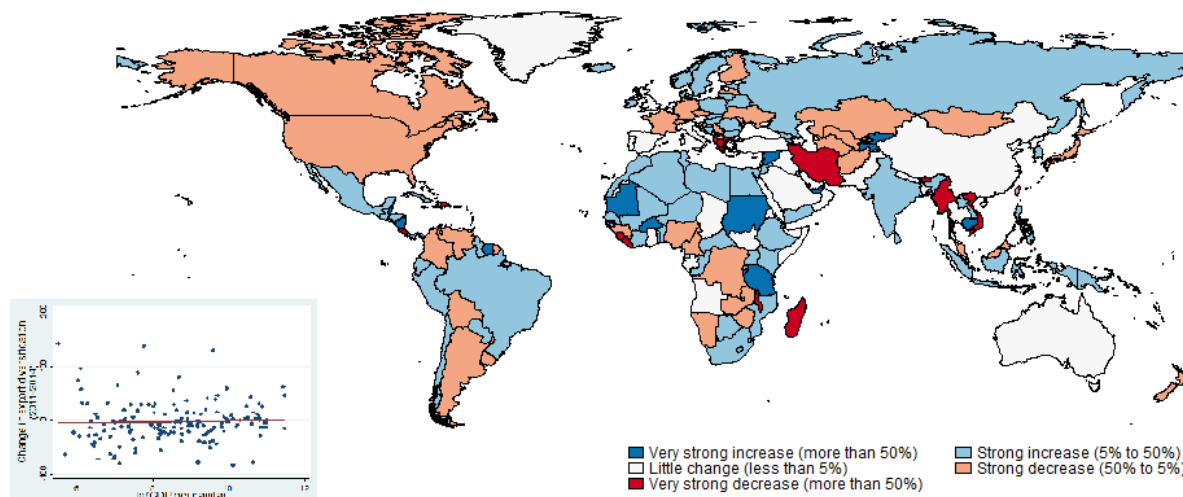


The Hirschmann-Herfindahl index is a measure of the diversification of exports with lower values reflecting higher diversification. It indicates the degree to which a country’s exports are dispersed across different destinations or different goods (at the HS 6 digit level). Low diversification is interpreted as an indication of vulnerability since the exporter is more exposed to economic shocks as they are limited to a small number of export markets or goods.

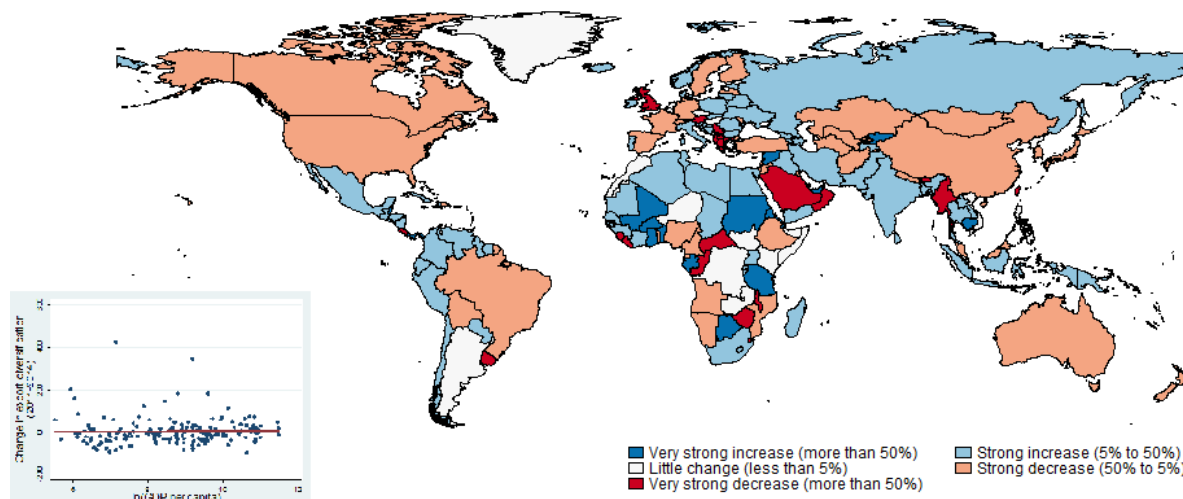
Many developing countries have been seeking to diversify their exports over the past years. Although some are still not very diversified, there is a tendency in many countries to diversify products and destinations more, in particular in many African countries. Some developed countries have seen a decline in terms of product and destination diversification.

**Index 6 – Export diversification change (2011-2014)**

**Export diversification change (2011-2014): by product**



**Export diversification change (2011-2014): by product and destination**



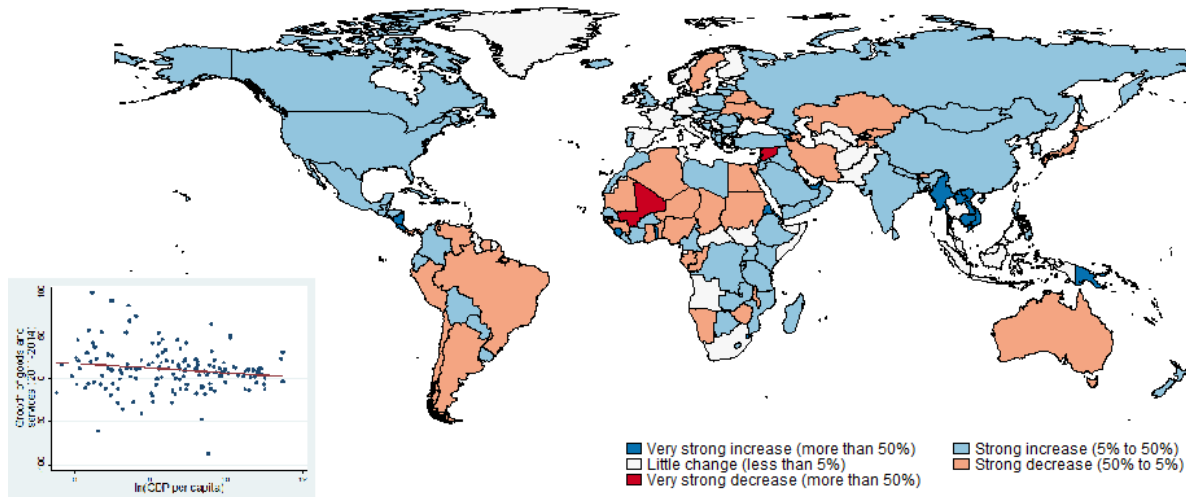
The export diversification change reflects whether countries are becoming more or less diversified. Many African countries were more diversified in 2014 than in 2011, whether only considering products or both products and destinations. In North America and Europe the trend went in the opposite way.



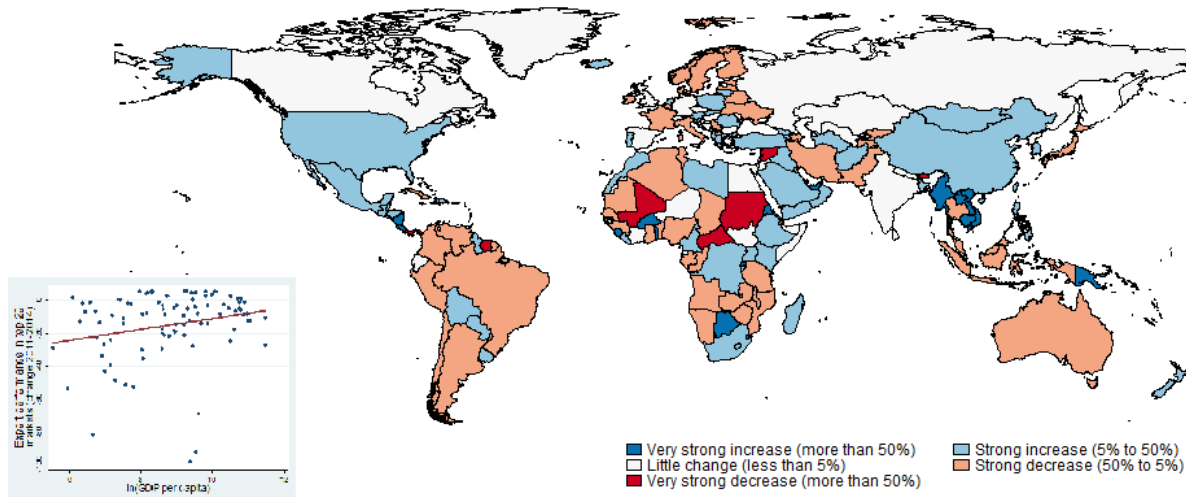
During the period 2011-2014 the exports of goods and services have increased for many countries, both developed and developing. Exports have increased relatively more for countries in East Asia, Southern Africa and North America. Export competitiveness is largely a matter of gains or losses in market shares in key export markets. During the period from 2011 to 2014, many Asian countries have increased their competitiveness with their key trading partners.

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

**Export growth in goods and services from 2011 to 2014**



**Change of the export competitiveness in the top 20 markets (2011-2014)**

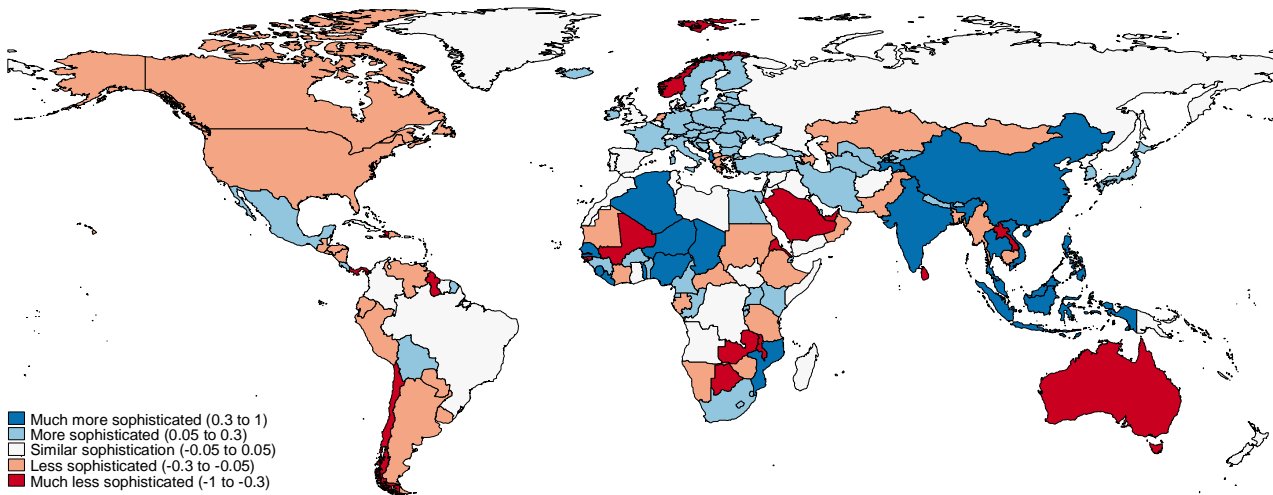


The growth rate of exports is calculated as the percentage change of the value of exports between two periods. It indicates the progress of an economy in expanding economic activity into international markets. Negative values indicate a contraction in the value of exports, while positive values indicate an increase in export earnings. Export competitiveness reflects the development of a country’s exports relative to its top 20 trading partners. Export competitiveness is measured as the ratio of a country’s market share in the reference group in 2014 over that in 2011. Positive values indicate that the country is becoming more competitive with respect to its partners.

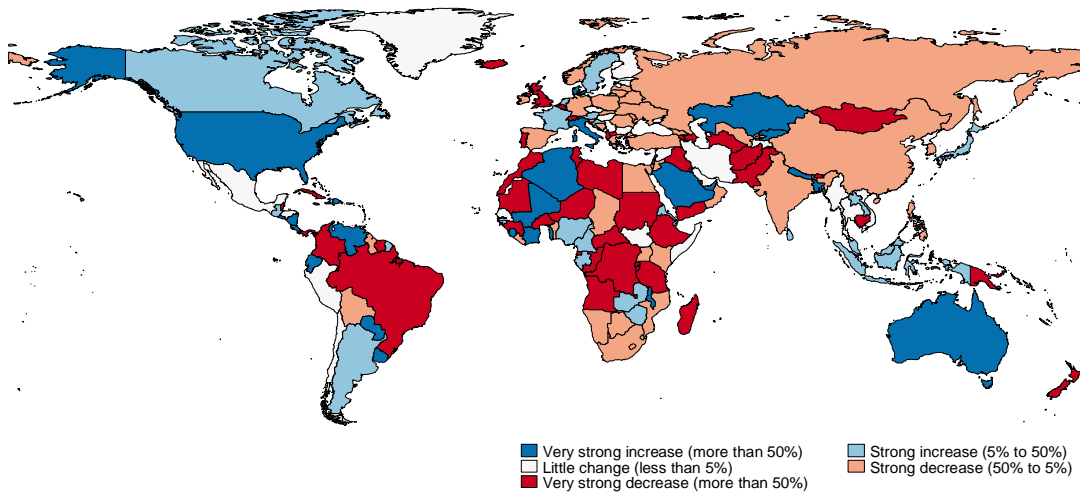
In comparison to countries with similar levels of GDP per capita, Australia as well as North and South American countries and some African countries tend to export goods that are less sophisticated. Europe and Asia tend to export more sophisticated products whereas the situation is more heterogeneous for African countries. In terms of change, many countries have become less sophisticated over the past years. However, several countries such as Australia and the USA have diminished their negative gap in terms of sophistication.

**Index 8 – Export sophistication and export sophistication gap**

**Export sophistication gap**



**Change of the export sophistication gap (2011-2014)**



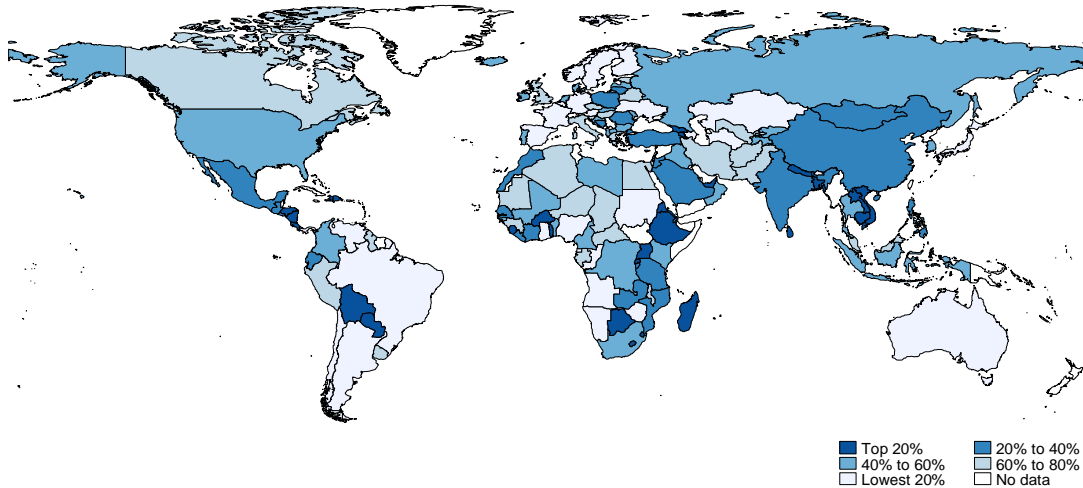
Export sophistication is measured by the EXPY index. The EXPY can be summarized as the per capita GDP as predicted by the composition of the export basket. Countries with a higher EXPY are those that export goods that are more sophisticated (i.e. generally exported by countries with high GDP per capita). Since the EXPY and GDP per capita are positively correlated by construction what is of interest is also how a country's EXPY compares to that of countries at similar levels of GDP per capita. This is summarized in the export sophistication gap which is computed econometrically by weighted regression. A positive gap implies an export structure that is more sophisticated than the country's GDP per capita would predict. Conversely, a negative gap implies an export structure that is more typical of that of countries at a lower level of development. This index takes into account only goods.



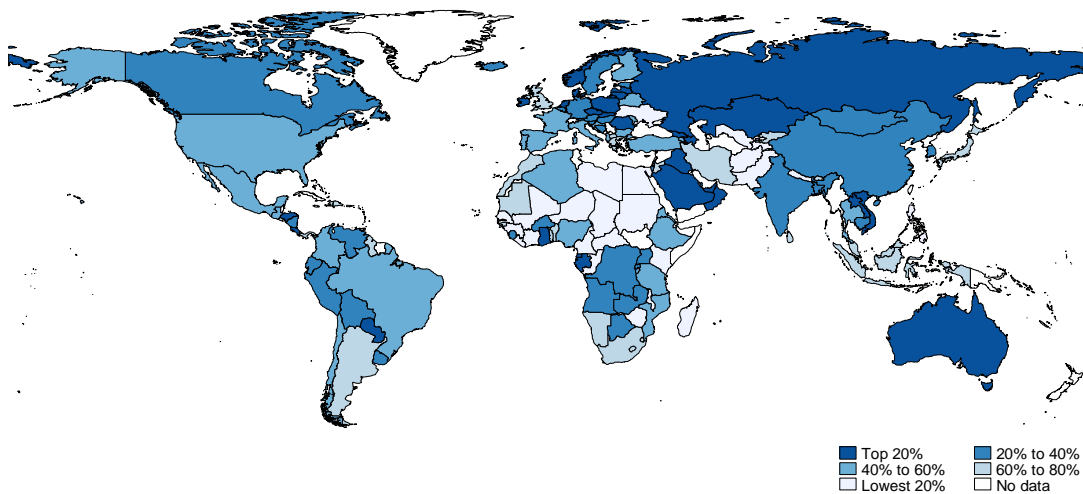
Many Asian countries have seen a strong improvement of its export performance over the past years. Various African countries and North America have also experienced an improvement in their performance relative to that of other countries. Over the last few years, most of South America, Australia and some African countries have seen their relative export performance grow slower.

### Index 9 – Overall export performance

#### Change of the export performance index (2011-2014)



#### Change of the export performance index (2004-2014)



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