



KEY STATISTICS AND TRENDS

in Regional Trade in Africa





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CONTENTS

NOTE	iv
OVERVIEW	v
DATA SOURCES	vi
 PART I	
INTRODUCTION.....	1
 PART II	
HISTORY OF REGIONAL INTEGRATION IN AFRICA AND POTENTIAL BENEFITS FROM STRENGTHENED COOPERATION.....	7
 PART III	
STATISTICAL TRENDS	13
1. Trends in International Trade: The Geography	13
2. Trade Structure: Product Composition	20
3. Services Trade and Investment Flows	36
4. Trade Facilitation	38
5. Tariffs and NTMs	43
6. Exchange Rates and Competitiveness	48

NOTE

Key Statistics and Trends in Regional Trade in Africa is a special edition of the Key Statistics and Trends in International Trade series initiated in 2013. It is a product of the Trade Analysis Branch, Division on International Trade and Commodities (DITC), UNCTAD secretariat. The series is part of a larger effort by UNCTAD to analyse trade-related issues of particular importance for developing countries, as requested by the mandate of UNCTAD XIV.

The study was prepared by Mesut Saygili and Ralf Peters. Christian Knebel, Alessandro Nicita and Rado Razafinombana provided substantial inputs. Valuable comments were received from Samuel Munyaneza, Julia Seiermann, Miho Shirotori, Giovanni Valensisi, Graham Mott and Edward Chisanga. Overall guidance and inputs were provided by Bonapas Onguglo. Desktop publishing was done by Jenifer Tacardon-Mercado.

OVERVIEW

Africa has a big domestic market that possesses significant opportunities. Currently, Africa accounts for 2.9 per cent of the world production and 2.6 per cent of the world trade even though 16.3 per cent of the world population is living on the continent. There are significant economic development gaps both between African and developed countries as well as among African countries. Poverty is still widespread in Africa where 32 out of 48 Least-Developed Countries (LDCs) are located. Intra-African trade has increased in recent years to 15.4 per cent. Nevertheless, Asia and Europe are still the main trade partners of the continent. High dependence on trade in primary goods, high product and market concentration of exports, and weak regional production networks are among the main challenges of African countries. Low performance in trade facilitation indicators is also hampering the development of trade and the economy in the region. For example, many African countries score low in e-commerce, linear shipping connectivity and doing business indicators.

Part of the difficulty in Africa is due to small, fractured and partly isolated markets. Many African countries resorted to development strategies after gaining independence that included the establishment of Regional Economic Communities (RECs). However, several RECs have overlapping memberships and seem to complicate instead of facilitating trade relationships among the African countries. African countries have been taking steps to integrate the continent through creating a continent-wide free trade area. The Continental Free Trade Area (CFTA) framework agreement signed in 2018 by 44 African countries has ambitious long-term goals in deepening integration among African Union member States and building a prosperous and united Africa. Among the main objectives of the CFTA are the facilitation, harmonization and better coordination of trade regimes as well as the elimination of challenges associated with multiple and overlapping trade agreements across the continent. Through this agreement, African economies hope to strengthen the competitiveness of the local industries, realise economies of scale for domestic producers, better allocate resources and attract foreign direct investments.

This report is structured into three parts. The first part presents an overview of Africa in the world economy and of intra-African trade. The second part briefly summarizes the history of RECs in Africa. The last part provides illustrative statistics on Africa's trade in goods and services during the last decade. The section includes various indicators of the trade structure, services trade, investment flows, trade facilitation, tariffs and non-tariff measures as well as exchange rates. While the section presents some of the most commonly used trade indicators at the continent level, some other figures compare the structure and performance of eight main building blocks of the African Union: Arab Maghreb Union (AMU/UMA), Economic Community of West African States (ECOWAS), East African Community (EAC), Intergovernmental Authority on Development (IGAD), Southern African Development Community (SADC), Common Market for Eastern and Southern Africa (COMESA), Economic Community of Central African States (ECCAS), and Community of Sahel-Saharan States (CEN-SAD).

DATA SOURCES

The statistics in this publication were produced by the UNCTAD secretariat by using data from various sources. This report mainly relies on the United Nations Commodity Trade Statistics Database (COMTRADE) (comtrade.un.org) and UNCTADstat (unctadstat.unctad.org) as its data source. For some indicators the World Investment Report 2013¹, World Bank Doing Business Indicators 2017, UNCTAD B2C E-Commerce Index 2017, UNCTAD TRAINS and ILOSTAT database were used. The data has been standardized to ensure cross country comparisons. Data, although comprehensive and comparable across countries, may not perfectly reflect national statistics, and thus some discrepancies with specific national statistics may be present. Unless otherwise specified international trade is defined as trade in goods (merchandise) and services. Countries are categorized by geographic region as defined by the United Nations classification (UNSD M49). Developed and developing countries comprise those commonly categorized as such in United Nations statistics. Product sectors are categorized according to the Broad Economic Categories (BEC) classification and the International Standard Industrial Classification (ISIC) augmented by five broad agricultural sectors based on the Harmonized System (HS) classification, unless specified otherwise. Figures are in current United States of America dollars, except where otherwise specified.

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

¹ UNCTAD (2013). *World Investment Report: Global Value Chains: Investment and Trade for Development* (United Nations Publication. Sales No. E.13.II.D.5. New York and Geneva).

PART I

INTRODUCTION

Africa captures a small share of the world economy

Africa has a large domestic market that possesses both important challenges and opportunities. With a total population of about 1.2 billion and a combined national income of \$2.1 trillion in 2016, it has a significant place and potential in the world economy. Nevertheless, African countries are facing challenges in realizing their full capacity. Economic development gaps both between African and the developed countries and among African countries are immense. While Africa accounts for 16.3 per cent of the world population (chart 1), its share in the world economy amounts to 2.9 per cent (chart 2). In other words, the average \$1,843 per capita income of African countries is about one sixth of the world average (UNCTADstat). Poverty is still an important challenge for many African countries. 32 out of 48 LDCs are located in Africa.

Chart 1: Distribution of world population by region (2016*)

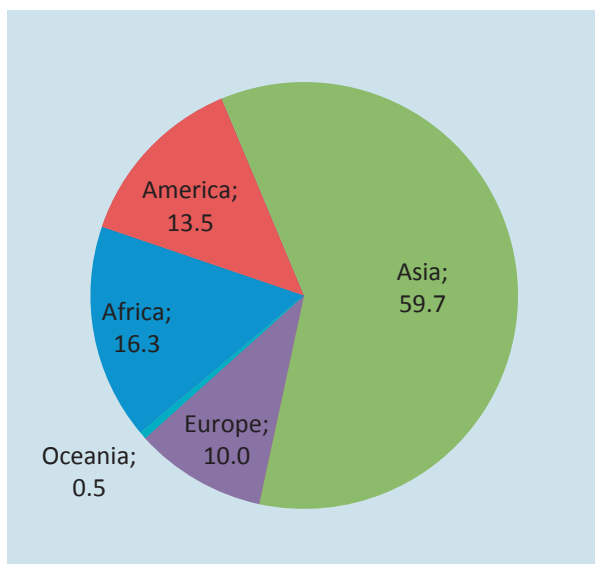
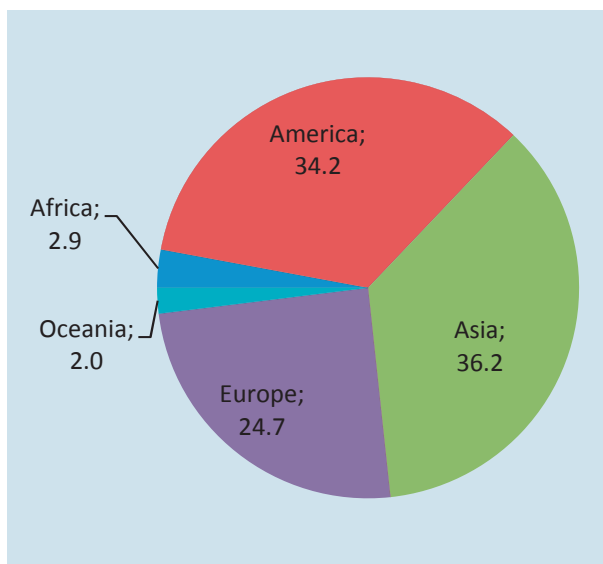


Chart 2: Distribution of world GDP by region (2016)**

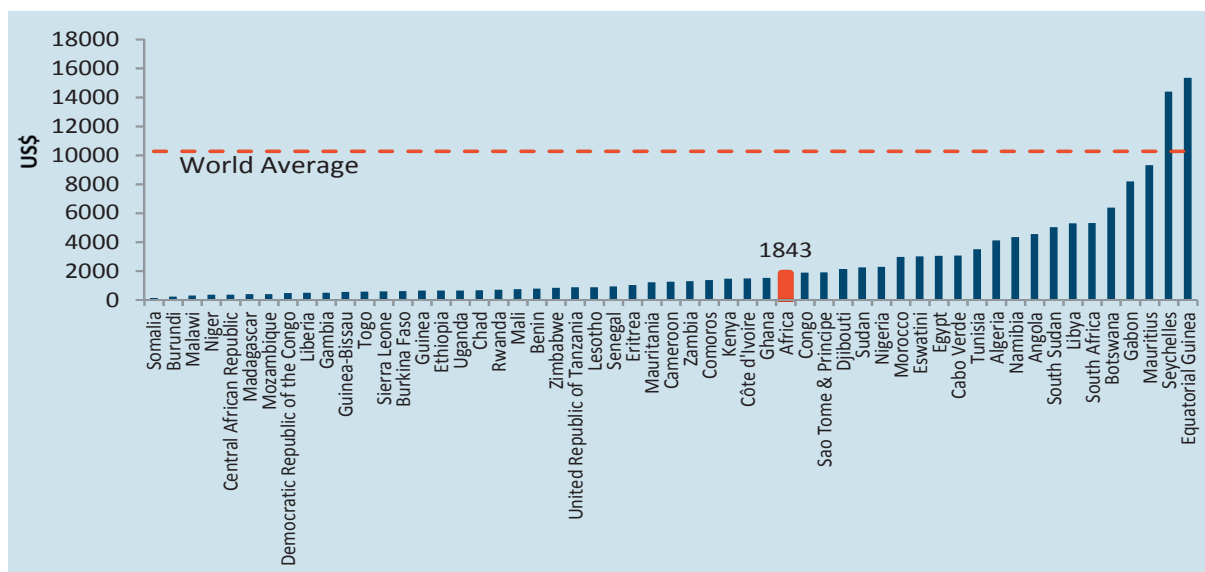


Source: UNCTAD calculations based on UNCTADstat.

*: Projection, **: Estimate.

The uneven income distribution among African countries is also clearly visible. 25 African countries have per capita income of less than \$1,000, while 8 others have more than \$5,000 (chart 3). Positive is, that many African countries achieved high real growth rates during the 2000s. For example, Ethiopia and Chad registered 9.8 and 9.6 per cent average annual growth rates, respectively, during 2000-2016. Similarly, Mali and Rwanda had 8.7 per cent and 7.8 per cent average annual growth rates, respectively, during the same period; much higher than the world average of 2.5 per cent.

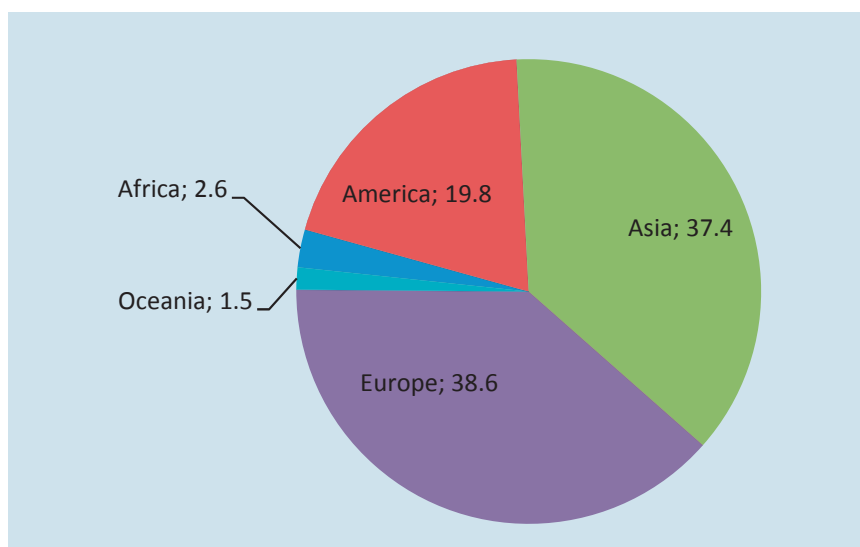
Chart 3: Per capita income of African countries and world average (US\$, 2016)



Source: UNCTADstat.

Note: 2015 figure for Somalia. 2016 figures are estimates.

Chart 4: Distribution of world goods and services trade by continent (2016)



Source: UNCTADstat.

.. as well as in World Trade

Africa as a continent is also lagging in raising its share in world trade (exports plus imports). As of 2016 it captures only 2.6 per cent of the world trade, much smaller than its share of world population (chart 4).

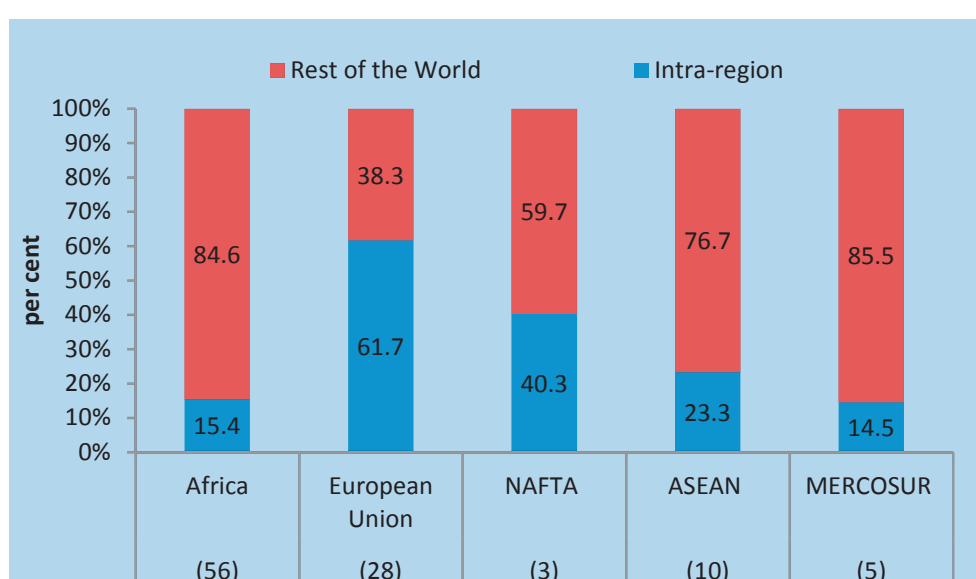
African countries are aware of the great potential and opportunities, as well as the challenges of their economies. There are serious efforts at national and international levels to deal with these challenges and integrate the fractured African market (see Part II).

Intra-African trade is rising fast, but is still at low levels

Merchandise trade accounts for the largest share of Africa's international trade even though trade in services has been increasing fast during the last decades. In 2016 Africa's goods exports was valued at about \$361 billion, while services exports reached almost \$96 billion.

Intra-African trade of \$129 billion accounts for about 15.4 per cent of the Africa's total goods trade (exports plus imports) in 2016. The intra-regional trade share is small when compared with European Union and North American Free Trade Agreement (NAFTA) but still higher than that of some other regional trade agreements such as Southern Common Market (MERCOSUR) (chart 5). Over time, high growth rates of trade within Africa, though partially due to the recent fall in fuel prices, boosted the share of intra-African trade. Nevertheless, Asia and Europe still remain the main trade partners of the continent.

Chart 5: Africa and various RECs: Share of intra-REC trade in total (per cent), 2016



Source: UNCATDStat.

Note: Number of countries in each region and RECs are shown in parenthesis

Across the continent, the intra-REC trade varies considerably, reflecting factors such as differences in the level of economic integration and in the sizes of the regions (Table 1). SADC, EAC and ECOWAS stand out as having the highest share of intra-REC trade. These regions also have the uppermost intra-African trade shares along with COMESA.

Intra-African trade is a crucial indicator for the current state and prospects of Africa's ambition to become an integrated continent by 2063. It is not a coincidence that the Tripartite Free Trade Area negotiations were launched in 2008 among COMESA, EAC and SADC as part of achieving this goal. Some other regions, such as ECCAS and AMU, are lagging in intra-regional trade integration. The different paces of integration across the continent create a fragmented trade structure which could be a challenge for a continent-wide integration.

A low trade complementarity among African countries is one of the main reasons behind the relatively low intra-African trade. Especially some RECs in Africa tend to have a very small trade complementarity index indicating low correspondence (similarity) between export compositions of a member State with import structure of other member States in the same REC. In part, this is due to a high dependence of some countries' exports on primary goods.

Table 1
Share of intra-regional trade in total trade of African RECs (2016), per cent

Reporting Economy (# of member states)	Trade Partner		
	Intra-REC	Rest of Africa	Rest of the World
AMU (5)	3.3	2.5	94.1
CEN-SAD (28)	7.5	4.1	88.4
COMESA (19)	7.0	9.3	83.7
EAC (5)	11.5	10.1	78.4
ECCAS (11)	2.8	9.5	87.7
ECOWAS (15)	10.7	5.6	83.7
IGAD (8)	7.3	8.0	84.8
SADC (15)	21.0	2.7	76.2

Source: UNCTADstat.

Note: Share of intra-regional trade is the ratio of export and import flows within a region over that regions total trade (exports plus imports to the world). As, by construction, RECs with more member states would have higher intra-regional trade statistics than smaller ones, the number of member states that are used in computing the statistics are also provided in parenthesis next to each REC.

Dependence on primary goods and high concentration rates are hampering export growth potential

The high concentration of merchandise exports is an important challenge for African countries in achieving the Africa's 2063 Agenda and the United Nations' Sustainable Development Goals (SDGs). Many of these countries are still heavily relying on natural resources as primary source of external income while higher-value added agricultural products, manufacturing or services has yet to capture higher shares in exports. Natural resources account for about 56 per cent of the Africa's exports in 2016.

A different kind of dependency is present in many African countries' import structures as well: Many are net food importers. Similarly, numerous African countries, except some countries of Northern and Central Africa, are net energy importers. Often net food importers (exporters) are net energy exporters (importers) in the continent.

In spite of the high dependence on primary goods, medium and high technology products are gradually gaining greater shares in trade during the last decade. Particularly intra-African trade can help to increase the technology content of the continent's exports as medium and high technology products account for 27 per cent of the total intra-African merchandise trade, more than twice the share for Africa's exports destined to the World.

Africa's trade balance has been deteriorating over the last 15 years partly due to high product concentration, particularly natural resources. The volume of imports quadrupled while exports only doubled during this period. As the terms of trade started to decline after 2012, improving the product composition of exports of African countries becomes more important than ever.

Africa's exports are also highly concentrated in a few markets as more than half of exports are destined to 10 countries. Similarly, intra-African trade is also highly concentrated.

The geographical distribution of Africa's main trade partners has been shifting since 2000. While many African and Asian countries are capturing bigger shares, countries in Europe, North America, Australia and parts of South America generally register declining market shares in trade with Africa.

In services trade, travel services is the main export category of the African countries, followed by transportation services in 2016. Despite their importance in Africa's exports, the continent is not an important supplier of these services in the global market.

There is a significant gap between developed and developing countries in Foreign Direct Investment (FDI) flows. The former are receiving about seven times more in direct investment per capita than the latter group of countries. In many African countries this average is way below the developing countries average. Nevertheless, though in absolute terms they are small, FDIs account for a significant share of national incomes in Africa.

In the contemporary world economy production processes often involve cross-border value chains which may include two or more countries that form regional or global production networks. These networks are called global value chains (GVCs) and may comprise activities across various sectors and industries from extractive industries and manufacturing to services. Trade flows based on GVCs are less apparent in Africa as intermediate goods are not playing a significant role intra-regionally. Regional production networks in Africa are rather weak. Moreover, as many African countries are mostly commodity-exporting countries, their production activities are mainly located at the upstream segment of the GVCs in the sense that their exports are further processed and exported by other countries.

A relatively low performance in trade facilitation indicators is also hampering trade and economic development in the region. Many African countries score low in e-commerce, linear shipping connectivity and doing business indicators.

Average tariff rates vary greatly among regional trade blocks around the world. In general, agricultural products face higher most-favoured nation tariff rates than industrial products. Preference margins are higher for agricultural products than for industrial goods. In general, the African RECs possess preferential access to the African markets. Yet, some RECs such as AMU and ECOWAS do not have any preference in accessing some other African RECs.

Sanitary and Photo-Sanitary (SPS) measures and Technical Barriers to Trade (TBT) are less important barriers to trade in Africa than across the world on average, while it is the other way around in the case of traditional trade policies such as quantity and price measures, often called non-tariff barriers.

Currencies of most African countries depreciated against the United States dollar, some significantly, since 2010 which decreased the dollar price of their export products. Labour productivity in Africa, however, remained well below the world average. Africa's average labour productivity is less than half the world average.

PART II

HISTORY OF REGIONAL INTEGRATION IN AFRICA AND POTENTIAL BENEFITS FROM STRENGTHENED COOPERATION

African countries resorted to different development strategies after gaining independence. While import substitution was chosen by some, regional integration increasingly became an important tool to facilitate economic transformation and progress over time in the continent. As regional trade agreements allow economies to overcome the small, fractured and isolated market constraints, new RECs started to thrive along with existing pre-independence arrangements.

Cross-border agreements did exist even during the colonial period. Today, some of them are still present though adapted to the new conditions of the region and the global economy. For example, the African Financial Community (CFA) is composed of two separate zones, the West African CFA and the Central African CFA. The former ultimately became the West African Economic and Monetary Union (WAEMU/UEMOA) while the latter was set to become the Economic and Monetary Union of Central Africa (CEMAC).

With the establishment of the United Nations Economic Commission for Africa (ECA) a new impetus to establish RECs aiming to eradicate poverty, achieve sustainable development and enhance international cooperation among African countries begun in the 1960s. The Organization of African Unity (OAU), predecessor of the African Union, was established in 1963 by 30 out of 32 independent African nations of that era. The OAU aimed at promoting unity and solidarity among the African states along with organizing and strengthening cooperation for development. To facilitate these objectives and enhance deeper cooperation in investment projects a financial institution, the African Development Bank Group, was founded the same year.

The Lagos Plan of Action is another milestone in the integration of the African continent. With the support of the EAC, OAU adopted the plan of action in 1980. The plan aimed at establishing an African Economic Community in a foreseeable future through strengthening existing RECs and establishing new ones.

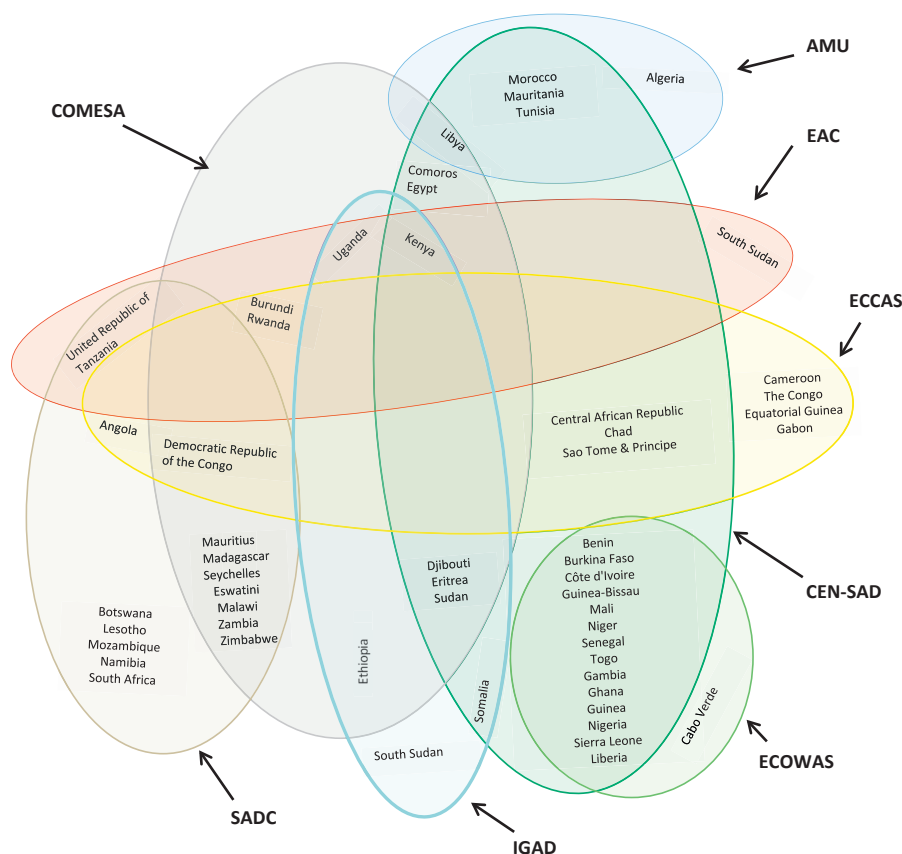
Today there are eight Regional Economic Communities (RECs) that are recognized as the building blocks of the African Economic Communities by the 1991 Abuja Treaty. They are the Arab Maghreb Union (AMU/UMA), Economic Community of West African States (ECOWAS), East African Community (EAC), Intergovernmental Authority on Development (IGAD), Southern African Development Community (SADC), Common Market for Eastern and Southern Africa (COMESA), Economic Community of Central African States (ECCAS), and Community of Sahel-Saharan States (CEN-SAD). Albeit there are overlaps in the country coverage, these RECs geographically cover different regions of the African continent (chart 6).

When the Lagos Plan of Action was approved, ECOWAS (founded in 1975) was already in existence. Similarly, the Southern African Development Coordination Conference was created in 1980s but later gave way to SADC in 1992. COMESA was founded in 1993 based on a Southern and Eastern African preferential trade area. ECCAS was established in 1983 by the members of the already existing Customs and Economic Union of Central Africa. Others, such as IGAD (founded in 1986), AMU/UMA (founded in 1989), CEN-SAD (founded in 1998) and EAC (founded in 1999) were recognized as RECs after the Abuja Treaty.

These eight RECs are considered as the key actors in implementing the continent's transformative programs such as the New Partnership for Africa's Development (NEPAD) and achieving the Agenda 2063 which was adopted in 2015. The latter is particularly important for Africa as it aims to integrate the continent while promoting development and peace through structural transformation and development plans.

Regional Economic Communities and the “Spaghetti Bowl” Effect

Chart 6: RECs in Africa (Member States)



Source: Authors' Compilations

Overlapping coverage of RECs creates a picture similar to what is sometimes called “Spaghetti Bowl” in Africa (chart 6). Multiple and overlapping REC membership structures often complicate trade relationships among the African countries. Thus, unifying the trade regime across the continent can promote the flow of goods and services within the borders of the continent.

African Union and the Continental Free Trade Area

Africa's integration is an ongoing process that gained new momentum with the 1991 Abuja Treaty. The agreement not only covered economic, social and political collaboration, coordination and convergence in Africa but also set a specific time frame until 2023 to establish an integrated African Economic Community. In conformity with the objectives of this treaty, OAU member states called for establishing the African Union in the Sirté Declaration and agreed on the constitutive act of the union in 2000. The African Union was launched in 2002 in Durban, South Africa, and NEPAD then ratified by the Union.

During the 2000s, African Union member States identified the financial and structural impediments on the implementation of the Abuja Treaty and proposed ways to overcome the existing challenges. In 2008, the Tripartite Free Trade Area negotiations among COMESA, EAC and SADC began as a building block for the CFTA.

In January 2012 fifty-four African countries agreed to establish the Continental Free Trade Area (CFTA) during the 18th Ordinary Session of the Assembly of Heads of State and Government of the African Union in Addis Ababa, Ethiopia.² The CFTA Agreement was signed on 21 March 2018 in Kigali by 44 African Union member States, but more time is needed for the full implementation of the agreement.

The agreement has ambitious long-term goals to deepen integration among African Union member States, to promote the African Economic Community as envisaged in the 1991 Abuja Treaty of the Organization of African Unity, and to realize Africa's Agenda 2063 to build a prosperous and united Africa. Among the main objectives of the CFTA are the facilitation, harmonization and better coordination of trade regimes as well as the elimination of challenges associated with multiple and overlapping trade agreements across the continent. It is hoped that integrated African economies can strengthen competitiveness of local industries, realise economies of scale for domestic producers, better allocate resources and attract foreign direct investments. Indeed, CFTA can, if successfully implemented, eliminate problems associated with overlapping RECs and the "Spaghetti Bowl" effect.

The CFTA is widely seen as an important opportunity for African countries in a globalized world (see Box 1). Eliminating tariffs can help African countries boost economic growth, transform their economies and achieve the SDGs. Furthermore, the generally positive impact of the CFTA is expected to be even greater if non-tariff measures are addressed (see Box 2 for SADC case), informal trade is integrated into formal channels and the agreement includes trade in services as well.³

Numerous challenges are ahead for the member States, despite the significant opportunities offered by the agreement for achieving sustainable development. Fear of experiencing significant tariff revenue losses and an uneven distribution of costs and benefits are among the main obstacles to the continent's integration. Countries with larger productive capacities in manufacturing may experience substantial economic growth and welfare gains while smaller economies and LDCs may face considerable fiscal revenue losses and threats to local industries.⁴ Uneven distribution of benefits and costs among member States may prolong the negotiations and hinder its implementation if sufficient flanking measures and flexibilities that allow redistribution of benefits and fair sharing of costs by member States are not put in place. To deal with these challenges, the African Union member States are considering different tariff reduction modalities and other mitigation mechanisms.

² See African Union website for further information (<http://www.au.int/en/ti/cfta/about>).

³ Kituyi M (2016). How to ensure the continued participation of LDCs in the MTS?. UNCTAD Blog article published on 3 February 2016. Available at <https://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=1196>.

⁴ Ibid.

Box 1: Potential benefits of deepened regional integration for African countries

African Union member States are taking steps towards integrating the economies across the African continent. Saygili *et al.* (2017) summarize economic theories as well as empirical studies on the possible effects of regional trade agreements.

As trade liberalization comprises removing barriers on imports such as tariffs and quotas, it lowers import prices and thus consumer prices. Moreover, trade can also allow consumers to access a greater variety of products in domestic markets. Due to these two effects, trade liberalization may lead to welfare gains in the form of consumer surpluses in importing countries. Lower import prices may also reduce costs of imported raw materials and intermediate inputs for downstream producers in the importing countries. The cuts in production costs therefore increase competitiveness for those domestic producers and allow integration into global value chains.

In addition to cost advantages, trade liberalization allows domestic firms to access to bigger markets and to gain from economies of scale. Once the small local market constraints are lifted, trade may not only allow firms to grow faster but also to get better access to finance and technology in the world economy.

On the other hand, trade liberalization also leads to challenges and transition costs. Tariff may revenues fall, increased competition may pose threats to less competitive sectors and firms, labour and other factors may have to move between firms and sectors, and total employment may decrease during an initial transition period. Large firms that are taking advantage of economies of scale may gain dominant positions in markets at the expense of small and medium sized enterprises (SMEs). Market consolidation with corresponding employment losses may occur when SMEs are exposed to stiffer competition during the transition period before jobs are created in the more productive sectors and companies.

Over time, however, increased competition may lead to improved efficiency of domestic firms as it requires firms to better use their resources, implement new technologies and innovate to survive under the new conditions. Especially in the case of south-south trade, trade liberalization may contribute to deep structural transformation with improved resource allocation, higher skill and technology content, and increased product and market diversification of exports. These potential benefits exist for African countries as well. For example, intra-African trade has a higher technology content than extra-African trade: While medium and high technology manufactures account for 27 per cent of intra-African trade, they only account for 16.6 per cent of African countries' exports to developed countries in 2016.⁵ Similarly, according to UNCTAD (2011), intra-African trade has a relatively higher manufactured goods content, i.e. more machineries and other goods or component parts for use or consumption by other industries or firms, than African countries' trade with the rest of the world. Therefore, trade agreements that strengthen intra-African trade can improve productive, technological and local value addition of the African countries.

It has been shown, however, that the benefits from regional liberalisation are not automatic and the distribution of gains and losses is not equal. Complementary policies, such as social protection, and skill and infrastructure development, are necessary.

Source: Saygili M, Peters R and Knebel C (2017). African Continental Free Trade Area: Challenges and Opportunities of Tariff Reductions. UNCTAD Research Paper no: 15. UNCTAD/SER.RP/2017/15 and UNCTAD (2011). *Economic Development in Africa Report 2011: Fostering Industrial Development in Africa in the New Global Environment*. United Nations. (UNCTAD/ALDC/AFRICA/2011).

⁵ UNCTAD calculations based on UNCTADstat. Lall classification is used.

Box 2: Reducing trade distortion effects of non-tariff measures (NTMs) to promote intra-regional trade in SADC

The Southern African Development Community (SADC) comprises 15 countries in Africa with the common objective of regional integration. Many member States have eliminated or reduced their tariff barriers since 2000, but intra-regional trade has not increased as expected. There are still trade obstacles stemming from non-tariff measures among member States. Addressing them can significantly increase trade and contribute to sustainable development in the region.

NTMs are policy measures, other than ordinary customs tariffs, that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both. The most common NTMs in SADC are sanitary and phytosanitary restrictions, certification procedures, quantity control measures, other technical regulations, government procurement, investment restrictions and intellectual property rights.

Many measures are legitimate and important, such as those relating to food safety and the prevention of invasive species. Other measures, for example quantity control measures, may intentionally limit trade to protect domestic producers. In some others, trade restrictiveness may unintentionally exceed what is needed for the measure's non-trade objective.

Although difficult, several approaches attempt to quantify the impact of non-tariff measures. A prerequisite is good data. Data on NTMs for the SADC region is incomplete and a greater effort at data collection is needed. Vanzetti et al. (2016) use average data for Africa and assess the effect of strengthened regulatory cooperation on trade, output, employment and incomes by using a global general equilibrium model. Depending on the way in which NTMs are addressed, e.g. harmonising among member States or maximising the use of international standards towards an open regionalism, the increases in national exports are estimated to be up to 2.2 per cent and in national incomes between 0.7 and 2.4 per cent. National output, employment and incomes will increase in all SADC countries but gains are unequally distributed.

Source: Vanzetti D, Peters R and Knebel C (2016). Sand in the Wheels: Non-Tariff Measures and Regional Integration in SADC. UNCTAD Policy Issues in International Trade and Commodities Research Study Series No.71.

PART III

STATISTICAL TRENDS

1. TRENDS IN INTERNATIONAL TRADE: THE GEOGRAPHY

Value of merchandise exports is falling while services trade remains resilient

Physical goods account for the largest share of international trade even though trade in services has been increasing fast during the last decades. In 2016 world trade in goods was valued at about \$16 trillion, while trade in services accounted for almost \$5 trillion. African countries' total merchandise exports stand at \$361 billion, while services exports reached \$96 billion in 2016. As in the case of world trade, Africa's exports rebounded sharply until 2012 to surpass its pre-crisis levels but this is followed by a decline that was accelerated in 2015. Nevertheless, trade in services showed resilience during the downturn (figures 1a and 1b).

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

Figure 1a: Africa's trade of goods and services (billion US\$), 2005-2016

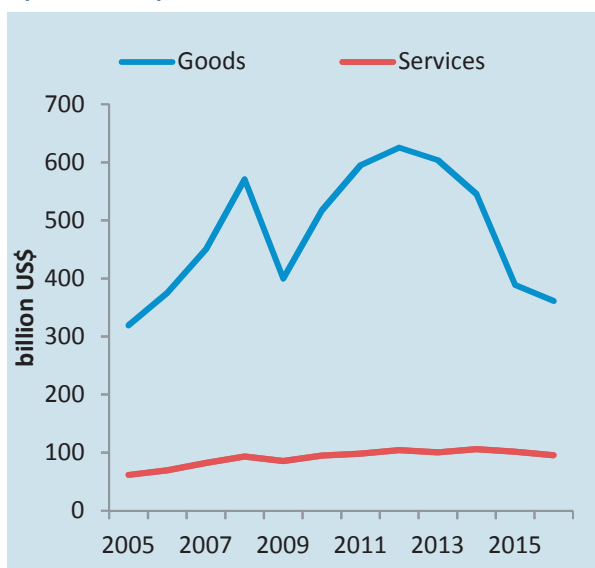


Figure 1b: Export growth rate of goods and services (per cent), 2006-2016



Source: UNCTADstat.

International trade can be broadly classified as trade in goods (merchandise) and services. The bulk of international trade concerns physical goods, while services account for a much smaller share. Africa's goods export increased from \$319 billion in 2005 to \$625 billion in 2012 and then fell to \$361 billion in 2016. Services export increased from \$62 billion in 2005 to \$106 billion in 2014 but later fell to \$96 billion in 2016 (figure 1a). Despite the strong rebound in 2010 and 2011, African countries' exports started falling as early as 2013 and the fall accelerated in 2015 to contract about 29 per cent, similar to falls seen during the 2009 Great Recession (figure 1b). The fall was mainly due to declines in exported commodity prices that lead to terms of trade deteriorations in many African countries.

Imports increase significantly more than exports

The growth rate of the Africa's export volume have been lagging behind imports during the last 15 years partly due to high product concentration of exports, particularly natural resources (figure 2). Over this period, the volume of imports has quadrupled while exports only doubled. As the terms of trade has started to deteriorate after 2012, improving the product composition of the African countries became more important than ever.

Figure 2
Volume of exports and imports, and terms of trade in Africa (2000-2016), 2000=100



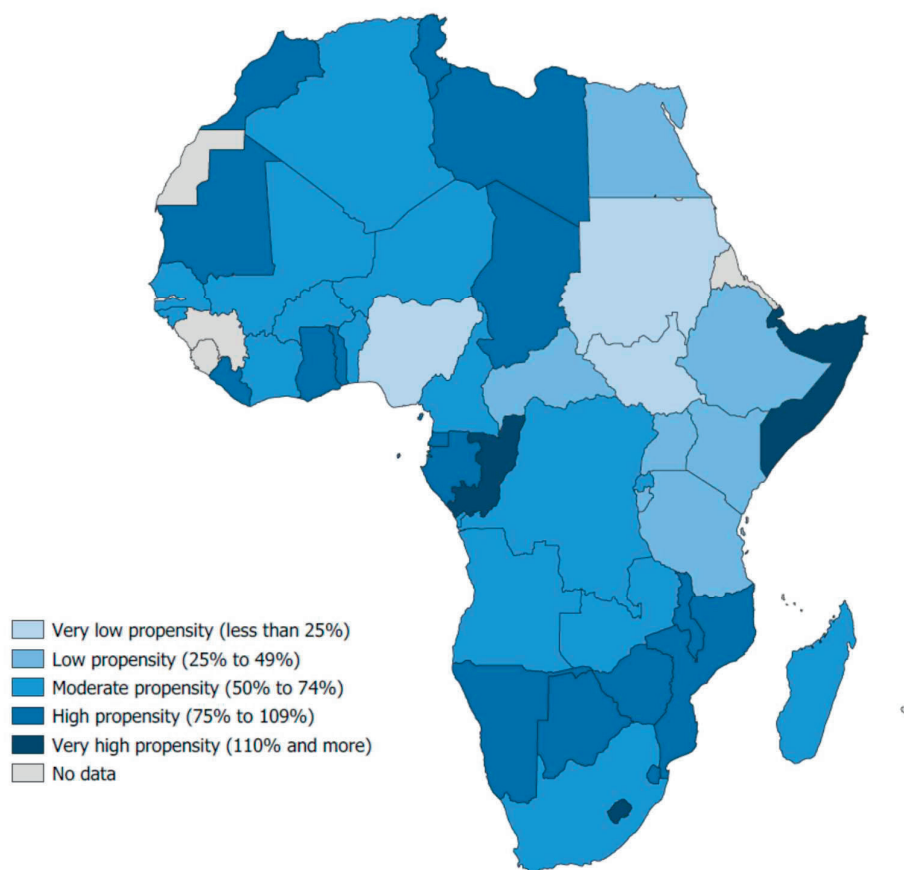
Source: UNCTADstat.

The volume index is the percentage ratio of the export or import value index to the corresponding unit value index. Aggregate volume indices have been revised by switching to a chain-weighted method. The value index is the current value of exports (f.o.b.) or imports (c.i.f.) converted to United States dollars and expressed as a percentage of the base period (2000). The following procedure was used in the calculation of unit value indices: A set of average price indices at SITC Revision 3, 3-digit level, are constructed using UNCTADstat Commodity Price Statistics, international and national sources and UNCTAD secretariat estimates. At the country level, unit value indices are calculated using current year trade values at the SITC Rev. 3, 3-digit level, available at UNCTADstat, as weights. The terms of trade or “net barter” terms of trade is the percentage ratio of the export unit value index to the import unit value index. Therefore, increase in the value of terms of trade indicates a rise in the price of export prices relative to import prices.

African countries are generally open economies

Many African countries are small open economies (map 1). A majority of them achieve high openness rates (exports plus imports over GDP), including due to their small economic sizes. The figure increases up to 200 per cent in Seychelles, Somalia and the Congo while it is well below the world average of 53.4 per cent in some others such as South Sudan, Sudan and Nigeria.

Map 1. Trade openness (2016)



Source: UNCTAD calculations based on UNCTADstat.

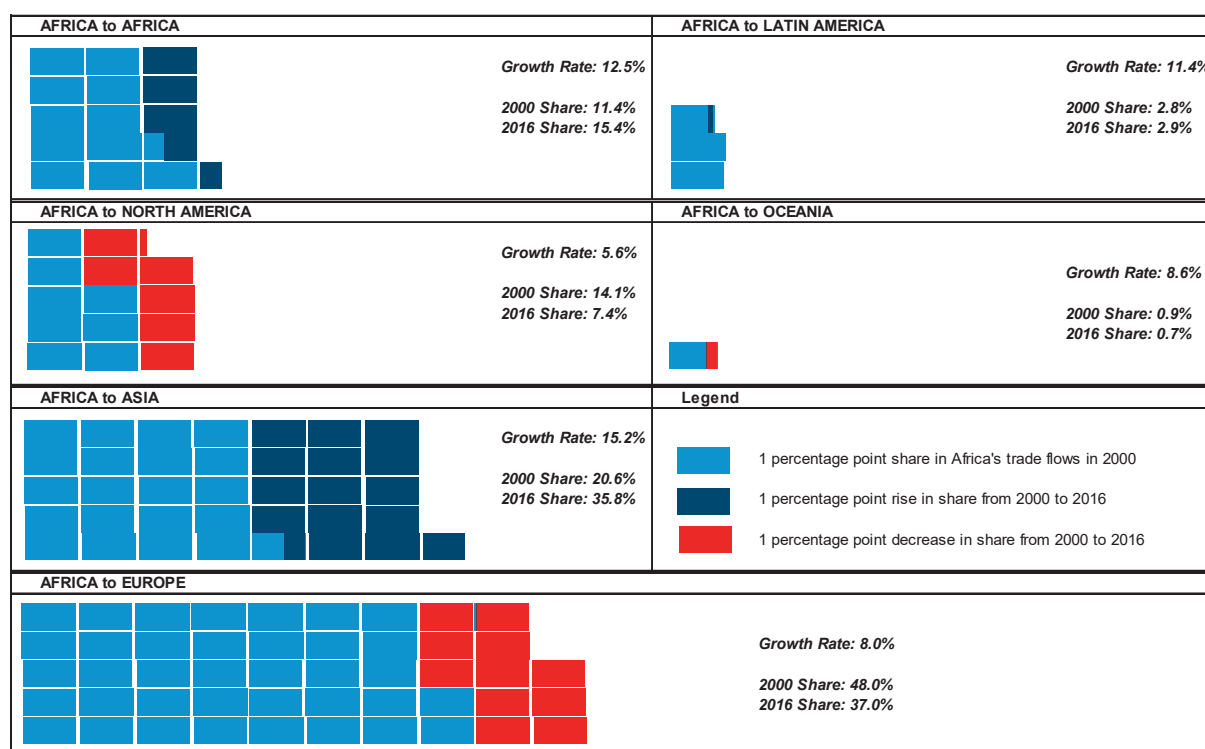
Country group	Average
World	53.4
Developed countries	52.4
Developing countries	54.8
Africa	48.3

Openness of economies is often measured as the share of the sum of exports and imports in the national income of an economy. A high value of trade openness indicates greater dependence of economies on foreign markets. The figure includes 2015 or 2016 statistics depending on the data availability.

Intra-African trade and trade with Asia growing disproportionately

Intra-African trade of \$128 billion accounts for about 15.4 per cent of the Africa's total goods trade in 2016 (figure 3). From 2005 to 2016 it has increased from 11.4 per cent to 15.4 per cent, an average annual growth rate of 12.5 per cent. Nevertheless, Asia and Europe remained the main trading partners of the continent.

Figure 3
Shares and growth rates of intra- and extra-African trade (2016)



Source: UNCTADstat.

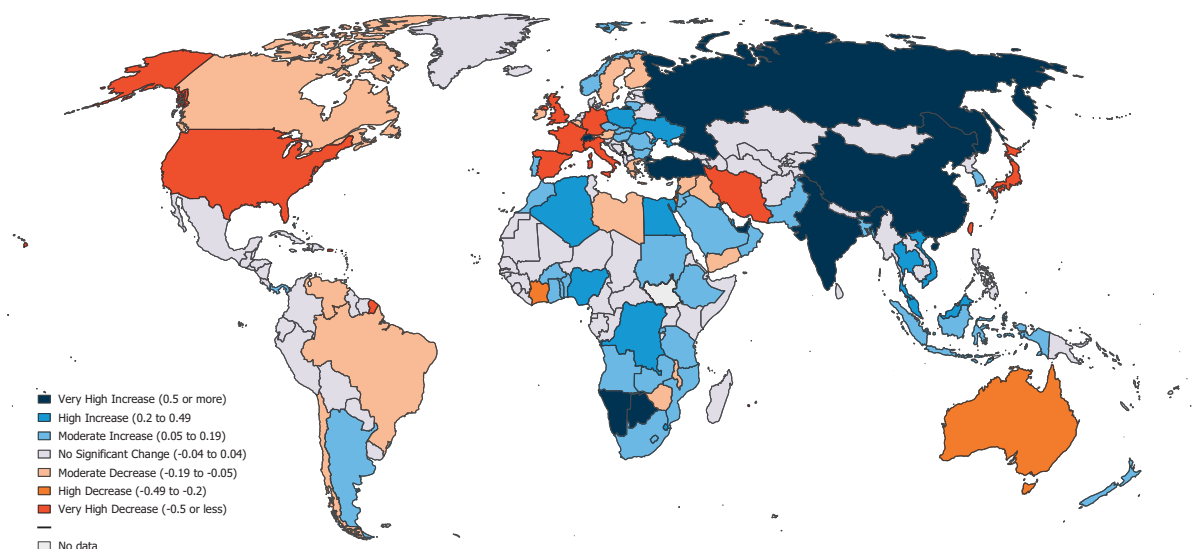
Note: 2005-2016 average growth rates and 2016 trade shares. Reading example: The value of exports from Africa to North America grew by 5.6 per cent per year but since this is slower than the Africa's total export growth, its share in total fell from 14.1 to 7.4 per cent.

Africa's global trade chart (figure 3) illustrates the importance of trade between Africa and other regions, as well as the trade growth rates between 2000 and 2016. Each rectangle represents 1 percentage point share in African countries' total trade. Therefore Asia, the second biggest trading partner of Africa with 35.8 per cent share has 35 full rectangles and 8/10 of a rectangle. Dark blue rectangles show an increase in the share from 2000 to 2016 while red ones are losses in the share over that period. Growth rates are 2000-2016 period averages.

Trade shifts east

The geographical location of Africa's main trading partners has been changing since 2000. While many countries in Africa and Asia are capturing bigger shares, some countries in Europe, North America, Australia and parts of South America experience generally declining shares (map 2).

Map 2. Changing geography of Africa's trade (2000–2016)



Source: UNCTAD calculations based on UNCTADstat.

To compute these statistics, merchandise trade (exports plus imports) figures of African countries with all counties (including intra-African trade) for 2000 and 2016 are used. Shares of each country in Africa's trade in 2016 are compared with their respective figure in 2000. Differences between 2016 and 2000 shares are used to colour the world map. Rises in shares are coloured in blue while falls in red.

High geographical market concentration is slowly declining

Africa's exports are highly concentrated in a few markets (figure 4a). More than half of the exports are destined to 10 countries. The top 20 markets account for about 71.7 per cent of the exports. However, there has been a significant improvement in the market diversification across the continent. Intra-African trade is also highly concentrated: intra-African trade takes place mostly within the RECs or between geographically close countries. Comparing the RECs, the market concentration for trade within Africa varies significantly; IGAD tends to have the highest concentration while CEN-SAD and COMESA the lowest in 2016 (figure 4b).

Figure 4
Market concentration

Figure 4a: Top 10 and top 20 market shares in Africa's exports to the world and intra-African trade (2005, 2010 and 2016), per cent

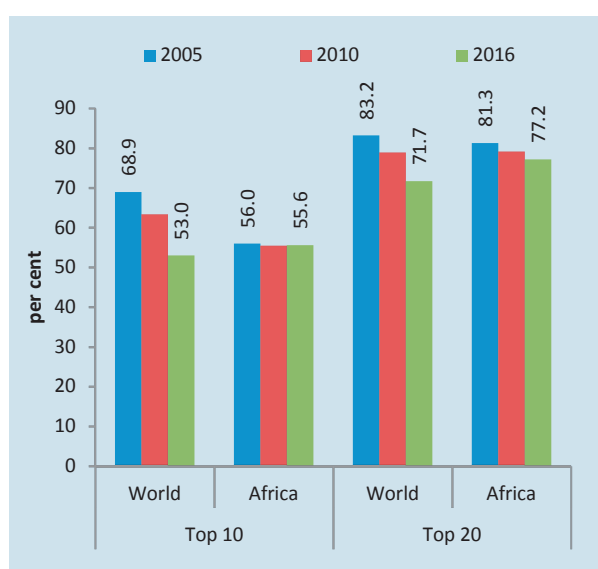
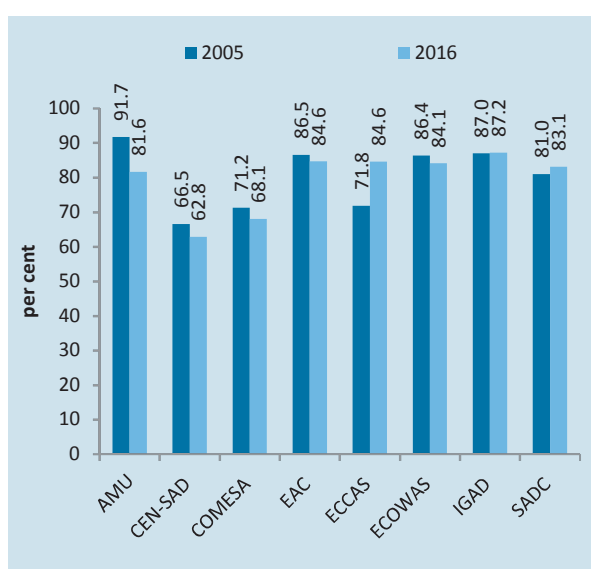


Figure 4b: Top 10 market share in African RECs intra-African exports (2005 and 2016), per cent



Source: UNCTADstat.

Countries with the highest top 10 and 20 market shares in Africa's merchandise exports are used in the computations. It varies from 0 to 100. European Union member States are treated as individual countries. Individual RECs may have a higher concentration index than African continent itself if RECs create some trade diversion effects towards their member States. Even though trade among REC member States is found to be highly concentrated, the continent may have more diversified trade flows.

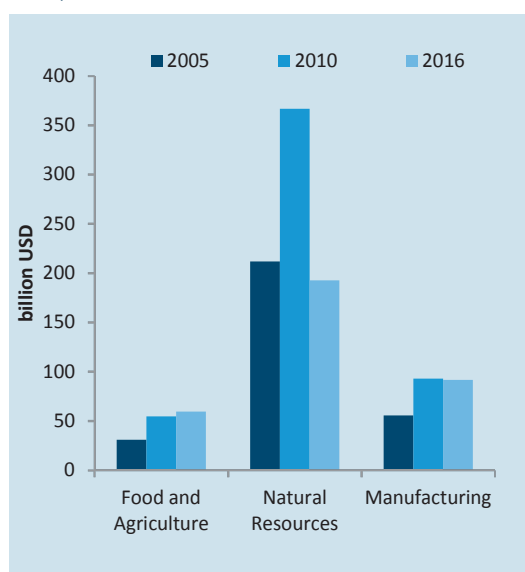
2. TRADE STRUCTURE: PRODUCT COMPOSITION

High dependence on natural resource exports...

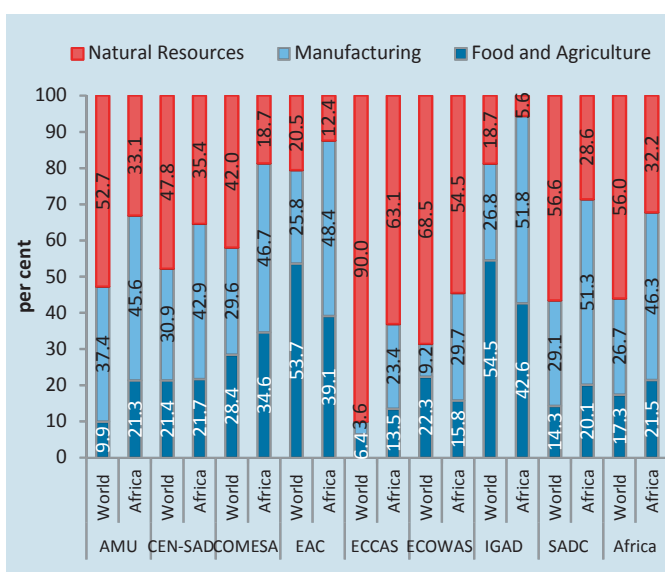
Natural resources, particularly fuel, account for the largest share of Africa's exports (figure 5a). With \$193 billion they accounted for 56 per cent of Africa's total exports in 2016 (figure 5b). The falls in commodity prices after the Great Recession and weak global demand lead to a swift decline in exports of natural resources compared with food and agriculture, and manufactured products since 2010 (figure 5a). Africa's trade in agriculture and manufacturing were more resilient to the recent trade downturn. The large share of natural resource-based products in Africa's merchandise trade deviates from the world trade pattern which is dominated by manufactured products (73.2 per cent of total merchandise trade). Nevertheless, manufacturing content of Africa's exports to Africa is much higher (46.3 per cent) than to the world (26.7 per cent).

Figure 5
Exports of goods by broad category

5a: Africa's exports of goods by broad category (2005, 2010 and 2016), billion US\$



5b: Distribution of exports of goods in Africa and African RECs by broad category (2016), per cent



Source: UNCTAD calculations based on COMTRADE.

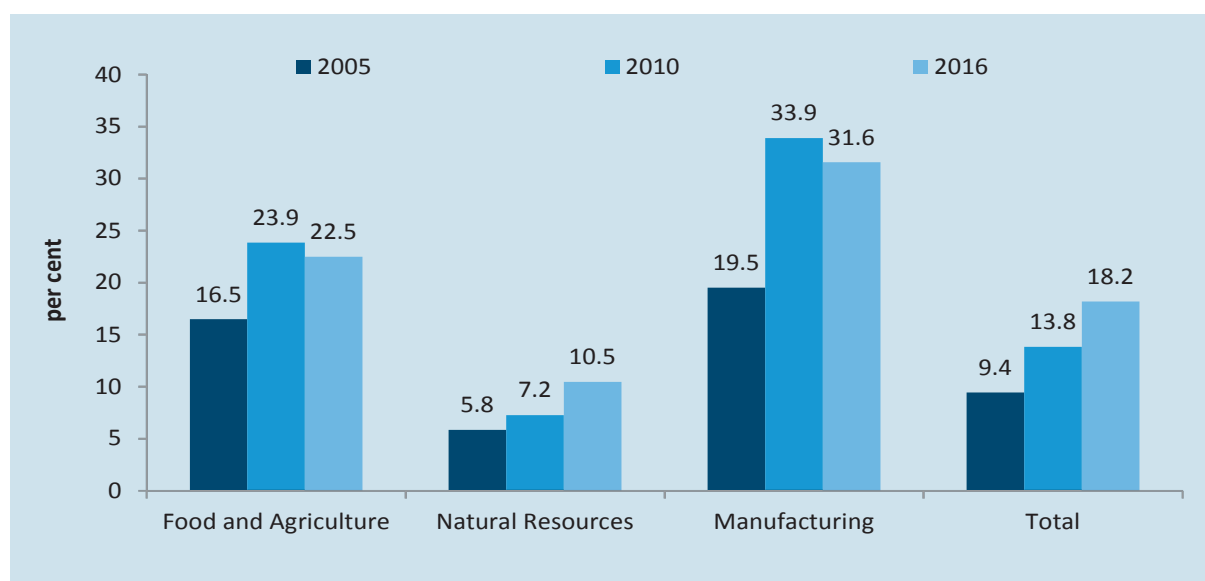
Reading example: In figure 5b, the share of food and agriculture products in AMU's exports to the world is 9.9 per cent and to other African countries 21.3 per cent.

Trade in goods can be classified into three broad categories: natural resources, food and agriculture, and manufacturing. The food and agriculture category includes SITC 0, 1 and 2 (excluding 27 and 28). The natural resources category includes SITC 3, 27, 28, 68, 667 and 971. Manufactured goods category includes SITC 5 to 8 less 667 and 68.

... although not in intra-African trade ...

In general, African markets account for a relatively small share (18.2 per cent) of Africa's total exports (figure 6). The share is the highest in manufactured goods, about 1/3 of those products are destined to African countries. This category is followed by food and agriculture and then natural resources. Declining commodity prices and fall in the value of natural resource exports to developed countries contribute to the rise of the intra-African exports' share in total.

Figure 6
Share of African countries in Africa's exports by product categories, per cent , 2016



Source: UNCTAD calculations based on COMTRADE.

Trade in goods can be classified into three broad categories: natural resources, food and agriculture, and manufacturing. The food and agriculture category includes SITC 0, 1 and 2 (excluding 27 and 28). The natural resources category includes SITC 3, 27, 28, 68, 667 and 971. Manufactured goods category includes SITC 5 to 8 less 667 and 68.

... is making Africa's exports sensitive to commodity price changes

Mineral fuels is the main export item of African countries (\$125 billion in 2016, figure 7a). The high reliance on fuel trade makes Africa's exports sensitive to commodity price changes. In 2015, the value of world international trade shrank in all sectors, but more so in the energy categories (oil, gas, coal and petroleum products) partly due to falling energy prices. Hence, Africa's export revenues from mineral fuels declined by almost 60 per cent from 2010 to 2016. Imports are more diversified. With a value of about \$158 billion, machinery and transport equipment is the largest import category for Africa followed by manufactured goods (figure 7b). From 2010 to 2016 Africa's imports in these main products have increased.

Figure 7
Values of world trade in goods by sectors

Figure 7a: Africa's exports by product category (SITC), (2005, 2010 and 2016), billion US\$

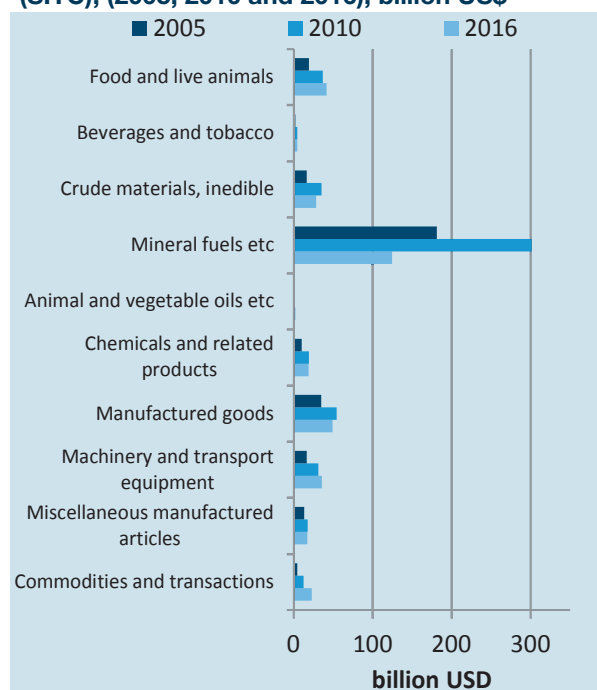
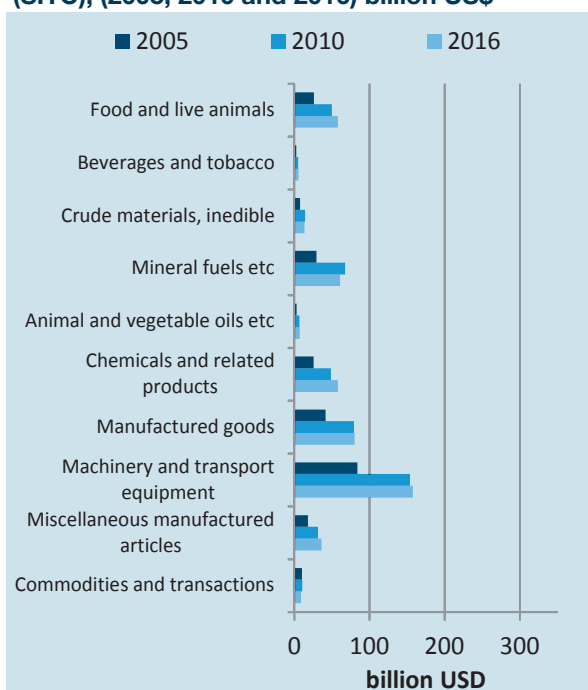


Figure 7b: Africa's imports by product category (SITC), (2005, 2010 and 2016) billion US\$



Source: UNCTADstat.

Figure 7a and 7b display the value of Africa's trade in 10 main SITC categories of goods. In terms of value, large amounts of Africa's trade are related to energy products (oil, gas, coal and petroleum products) and manufactured goods. On the other hand, Africa's imports are more diversified and machinery and transport equipment, and manufactured goods comprised the largest share. The fall in commodity prices and the appreciation of the United States dollar, inter alia, contributed to the fall in world trade. According to the UNCTAD's Key Statistics and Trends in International Trade 2016, 40 per cent of the fall in world trade is due to the fall in trade in energy products.⁶

⁶ UNCTAD (2017). *Key Statistics and Trends in International Trade 2016: A Bad Year for World Trade*. United Nations, Geneva. UNCTAD/DITC/TAB/2016/3.

GVC participation mostly at the beginning of chains

The integration of developing countries into global value chains (GVCs) has been discussed in connection with development opportunities and challenges. One indicator to measure the participation in GVCs is the share of foreign inputs in exports. African countries' exports include on average 14 per cent foreign inputs, about half of the world average (figure 8a).

Another indicator also takes the other countries' use of inputs from Africa into account. With this indicator, Africa's GVC participation rate is similar to the world average (figure 8b). However, as many African countries are commodity-exporting countries, their production activities are mostly located at the upstream segment of GVCs. Their exports are further processed and exported by other countries.

Figure 8
Share of African countries in Africa's exports by product categories, per cent, 2016

Figure 8a: Share of foreign value added in exports by region, 2010



Figure 8b: Global value chain participation rate, 2010



Source: Reproduced from World Investment Report 2013.

The global value chain participation rate is calculated as the foreign value added used in a country's exports (upstream) plus the value added supplied to other countries' exports (downstream), divided by total exports.

Weak regional value chains in Africa

Regional value chains are very weak in Africa. Only about 6 per cent of trade flows within Africa are linked to value chains (figure 8c). Among the top 25 developing countries with the highest GVC participation rate, there are only four African countries: South Africa, Tunisia, Egypt and Morocco (figure 8d).

Figure 8c: Share of intra-regional GVC flows in total GVC participation, selected regions, 2010, per cent

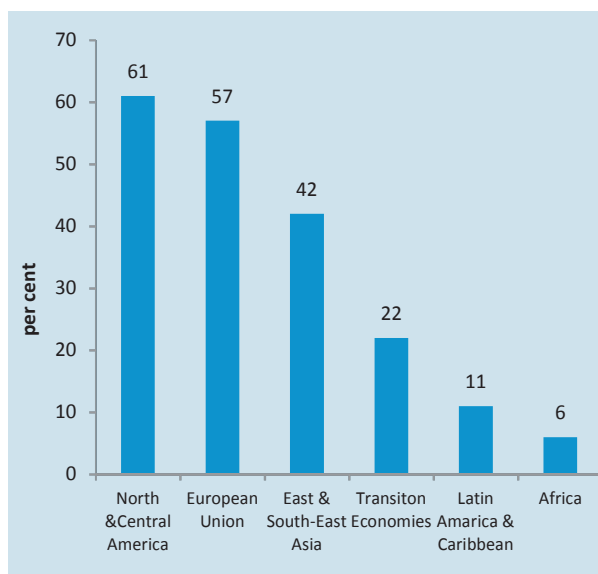
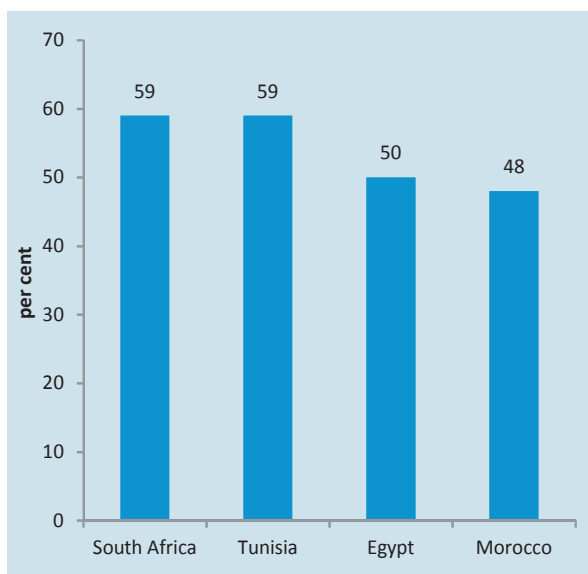


Figure 8d: GVC participation rate, top countries in Africa, 2010



Source: Reproduced from World Investment Report 2013.

Note: Figure 8d excludes predominantly oil-exporting countries.

The share of imported inputs (raw and semi-processed) in domestic production and exports is used to measure a country's participation rate in GVCs. GVC participation rate indicates the share of a country's exports that is part of a multi-stage trade process; it is the foreign value added used in a country's exports (upstream perspective) plus the value added supplied to other countries' exports (downstream perspective), divided by total exports.

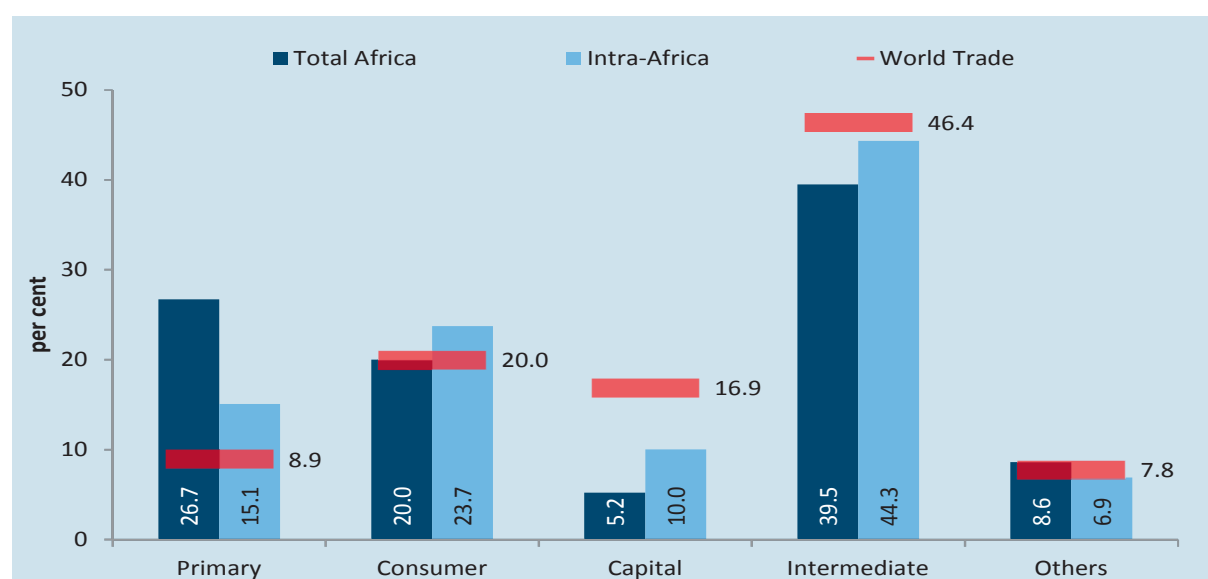
The UNCTAD-EORA GVC Database is part of UNCTAD's FDI-TNCs-GVC Information System and, among other things, focuses on the distribution of value added, on income and employment resulting from trade, and on how global investment drives patterns of value-added trade. The database covers 187 countries, including nearly all developing economies. It provides statistics on a broad range of industries of relevance to developing countries.

More intermediate, consumer and capital goods in intra-African trade

Intermediate goods account for the biggest share in Africa's exports (39.5 per cent), followed by primary goods (figure 9). Intra-African exports include less primary but more consumer, capital and intermediate goods when compared with the total exports of the continent.

Africa's exports are concentrated on primary goods relative to the world average. The capital goods share is only about one third of the world average, and in intermediate goods, the share is 7 percentage points less than the world average.

Figure 9
Distribution of total Africa and intra-African exports by processing, per cent , 2016



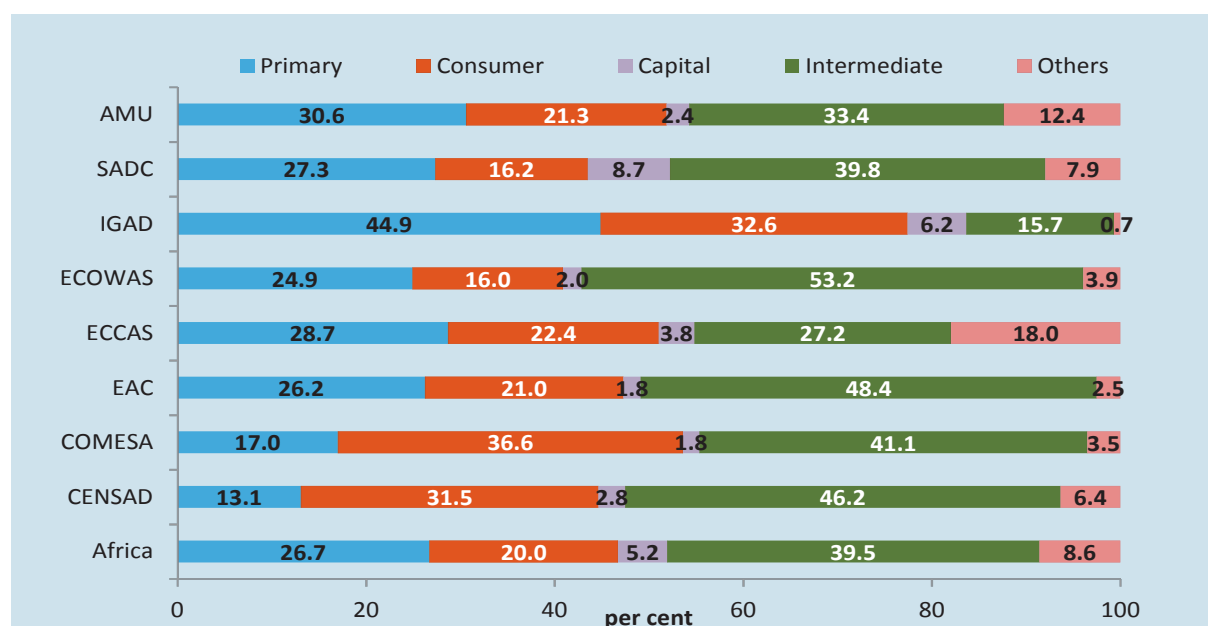
Source: UNCTAD calculations based on COMTRADE.

International trade in goods can be differentiated by stage of processing, according to the intended use along the production chain. Goods are therefore classified as primary, intermediate, consumer and capital (the latter comprising machinery used for the production of other goods). Non-classified goods are placed under the "others" category. The distribution of world trade by product processing stage is the average of gross export and import figures.

Diverse export structures across the African regions

The African RECs are quite diverse in their export structures (figure 10). Primary goods account for major shares, particularly in AMU, which mainly includes North African oil exporting countries, and IGAD. Intermediate goods account for significant shares in ECOWAS and EAC exports. On the other hand, consumer goods account for larger shares in COMESA and IGAD exports. Capital goods account for smaller shares in all regions compared to the world average of about 17 per cent.

Figure 10
Distribution of exports of African RECs by processing, per cent, 2016



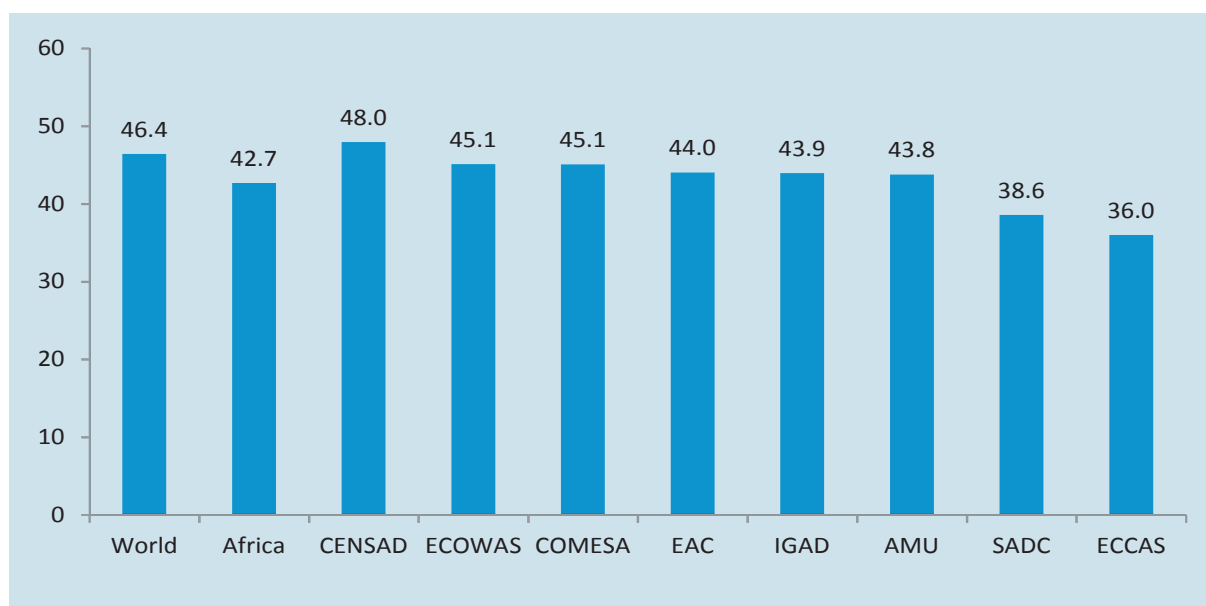
Source: UNCTAD calculations based on COMTRADE.

- Intermediate goods: Goods that are manufactured to be further processed by other producers
- Consumer goods: Final goods that are purchased by consumers
- Capital goods: Machinery and equipment that are used for producing products

International trade in goods can be differentiated by the stage of processing, according to the intended use along the production chain. Goods are therefore classified as primary, intermediate, consumer and capital. Non-classified goods are placed under the “others” category.

A country's degree of integration into global production networks can be measured in various ways including the share of intermediate goods in trade flows. In Africa, intermediate goods account for about 43 per cent of the total trade (exports plus imports) which is slightly lower than the world average. Some RECs score lower in this indicator, in particular SADC and ECCAS (figure 11).

Figure 11
Share of intermediate goods in total trade by African RECs, per cent, 2016



Source: UNCTAD calculations based on COMTRADE.

Trade in intermediate goods is only one of several ways to measure a country's integration into global/regional production networks. Primary goods can also be used in these production processes. This form of integration, however, is often seen as creating less domestic value addition and fewer jobs.

International trade in goods can be differentiated by the stage of processing, according to the intended use along the production chain. Goods are therefore classified as primary, intermediate, consumer and capital. Non-classified goods are placed under the "others" category. World trade in intermediate goods is the average of gross export and import figures.

Intra-African trade has higher technology content than extra-African exports

Using a classification that distinguishes the degree of technological content, goods that have the least technology content, primary goods (Lall definition), account for a significant share of Africa's merchandise exports: about half of the total (figure 12a). On the other end of the spectrum, however, medium and high technology products are capturing only 13.5 per cent and 2.6 per cent, respectively. Africa's exports destined to Africa have a higher technology content than the ones shipped outside the continent. For example, while medium and high technology goods together account for 16.6 per cent of Africa's exports to developed countries in 2016, this figure is 27 per cent in intra-African trade (figure 12b).

Figure 12
Exports by technology content

Figure 12a: Africa's exports by technology content (2016), per cent

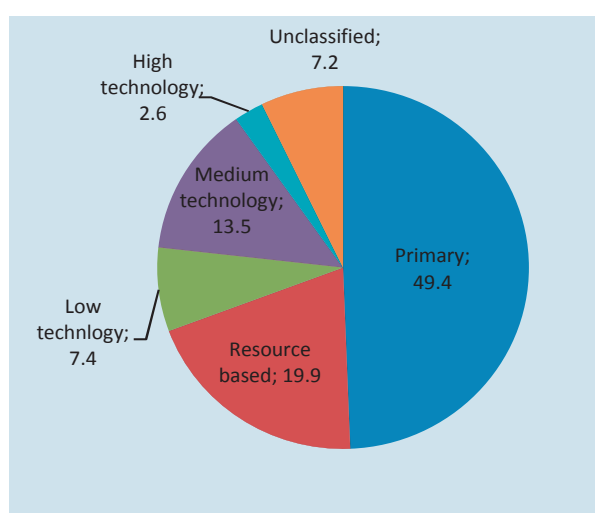
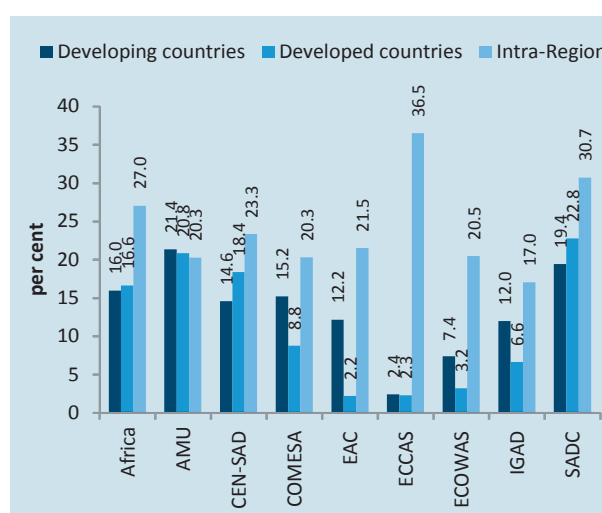


Figure 12b: Share of medium and high technology goods in exports of Africa and African RECs by destination (2016), per cent



Source: UNCTADstat.

Note: Lall classification is used.

Merchandise exports can be classified as primary products, resource-based manufactures, low technology manufactures, medium technology manufactures and high technology manufactures following research conducted by Lall S (2000). The Technological Structure and Performance of Developing Country Manufactured Exports, 1985-1998. QEH Working Paper Series – QEHWPS44.

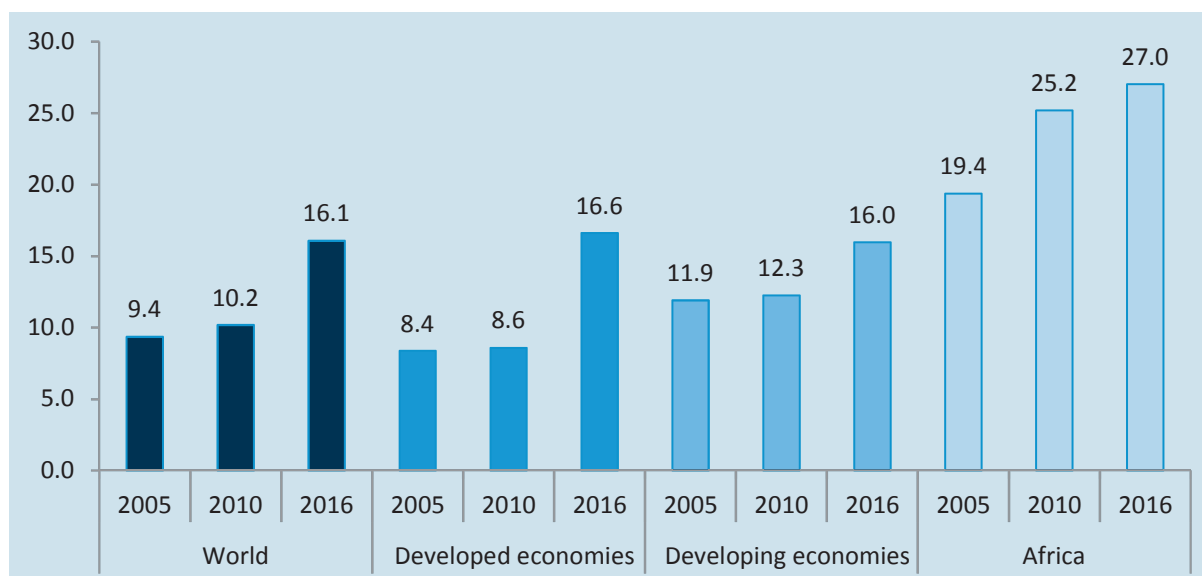
Over the period of 2005-2016, the share of primary goods declined more than 15 percentage points while medium technology products increased by 6 percentage points. During the same period, high technology products remained low (increase from 1.6 per cent to 2.6 per cent).

Primary goods account for 27 per cent of Africa's exports in figure 10 while 49 per cent in figure 12. The figures differ due to differences in product classifications. Figure 10 uses augmented BEC classification while figure 12 Lall definition.

Technology content is improving

During the last decade, Africa's export composition improved in favour of medium and high technology products from 9.4 to 16.1 per cent (figure 13). Intra-African trade was the main driver of this trend at the first half of this period while exports to developed countries also contributed to this trend during the second half.

Figure 13
Share of medium and high technology goods in Africa's exports by destination
(2005-2016), per cent



Source: UNCTADstat.

Note: Lall classification is used.

Reading example: In 2016, 16.6 per cent of Africa's exports to developed countries were medium to high technology products.

Trade within Africa is more diversified

The African export product basket is highly concentrated, although over the last decade the concentration has declined significantly. The concentration shows variation depending on the destination of the merchandise goods. Intra-Africa trade tends to be more diversified than the extra-African exports (figure 14a). While the top 10 products (out of 255) account for 52.7 per cent of Africa's total exports, this figure is 32.8 per cent for intra-African trade. In general, the same pattern emerges for African RECs as in all eight RECs exports to Africa has a lower product concentration than total exports (figure 14b). Across the RECs COMESA, EAC, IGAD and SADC have the lowest concentration while export revenues of ECCAS and ECOWAS are highly dependent on very few products such as fuel and other natural resources.

Figure 14
Product concentration of exports

Figure 14a: Share of top 10 and top 20 products in Africa's exports to Africa and world (2016)

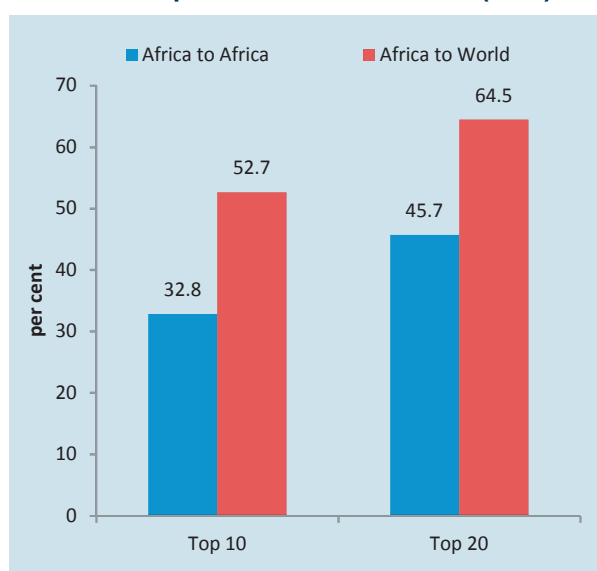
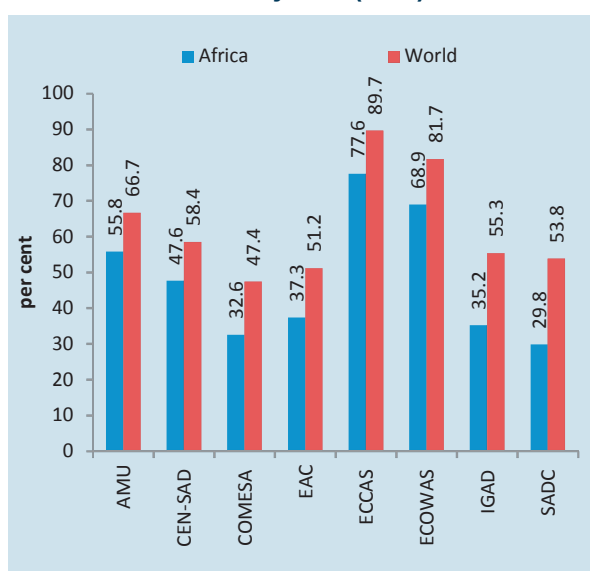


Figure 14b: Share of top 10 products in exports to Africa and world by REC (2016)



Source: UNCTAD calculations based on UNCTADstat.

Note: In computing the statistics three-digit SITC is used.

The share of the 10 (or another fixed number) main products in an export basket of a country is a method often used to measure the degree of concentration and dependence of countries' exports on few products. The three-digit level SITC Revision 3 commodity classification is used here to compute the statistics. There are 255 product items in this classification.

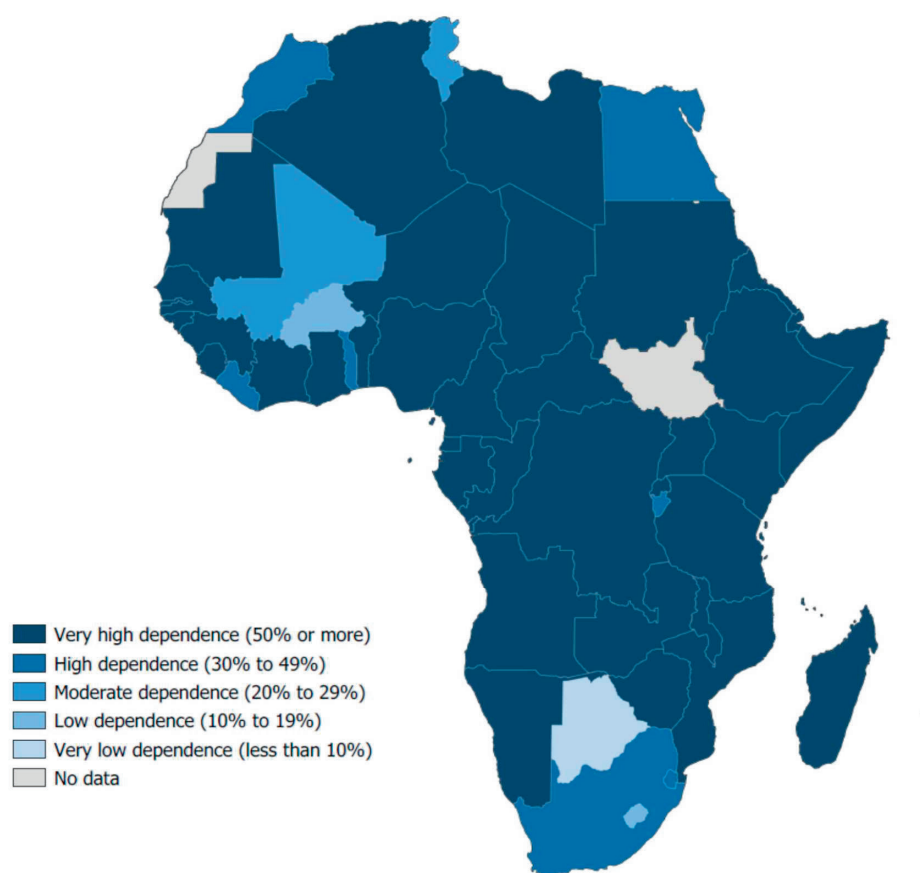
Africa's top 10 export products are mainly natural resource-based goods. The list includes petroleum products, gold and other commodities, cocoa, fruits and nuts as well as motor vehicles for transport of persons. Intra-African trade also includes ships and boats and electric current. The list of top exports to the world also includes apparel and textile products in AMU and CEN-SAD, coffee and tea in COMESA, EAC and IGAD, and cotton in ECOWAS. The top intra-African exports from SADC includes civil engineering equipment and from ECCAS parts and accessories of vehicles.

Africa is highly dependent on trade in agriculture and natural resources

African countries are among the highest commodity export dependent economies in the world. The dependence is quite evident in raw material exporting countries of Africa along with major energy rich economies of North Africa (Map 3a). The dependence index has fallen recently in some countries, however, mainly due to the fall in commodity prices. The development does not necessarily indicate a real improvement in export diversification (Map 3b).

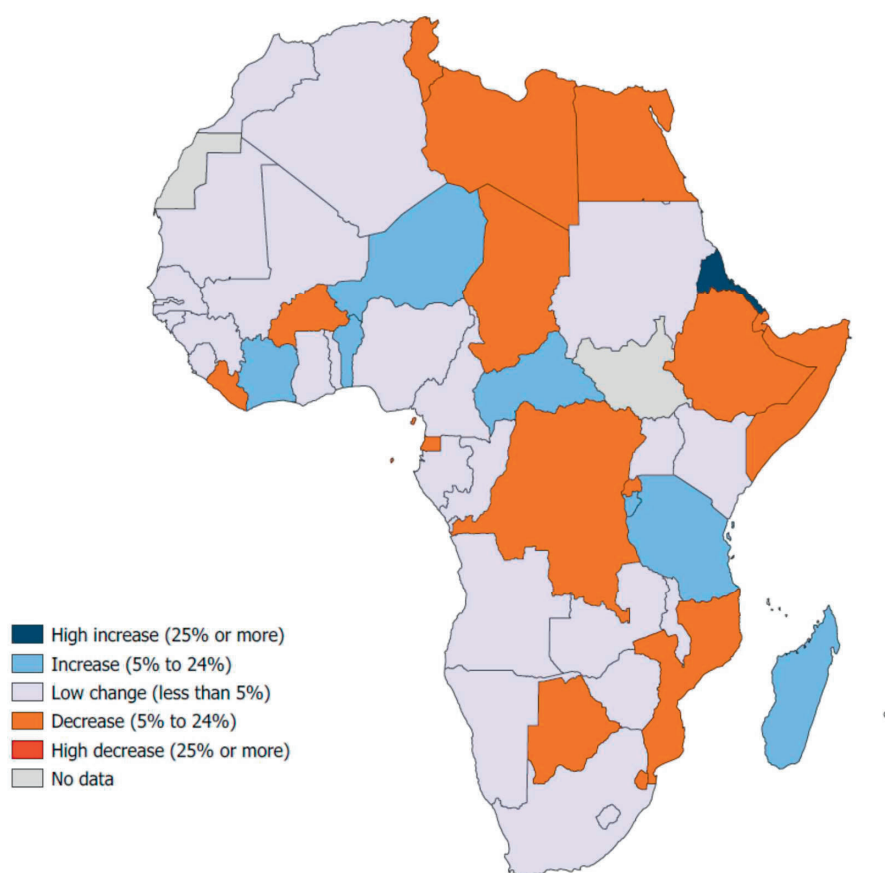
Map 3: Commodity export dependence I

a) Agricultural and natural resources dependence index, 2016



Source: UNCTAD calculations based on UNCTADstat.

b) Change in agricultural and natural resources dependence index, 2013–2016



Source: UNCTAD calculations based on UNCTADstat.

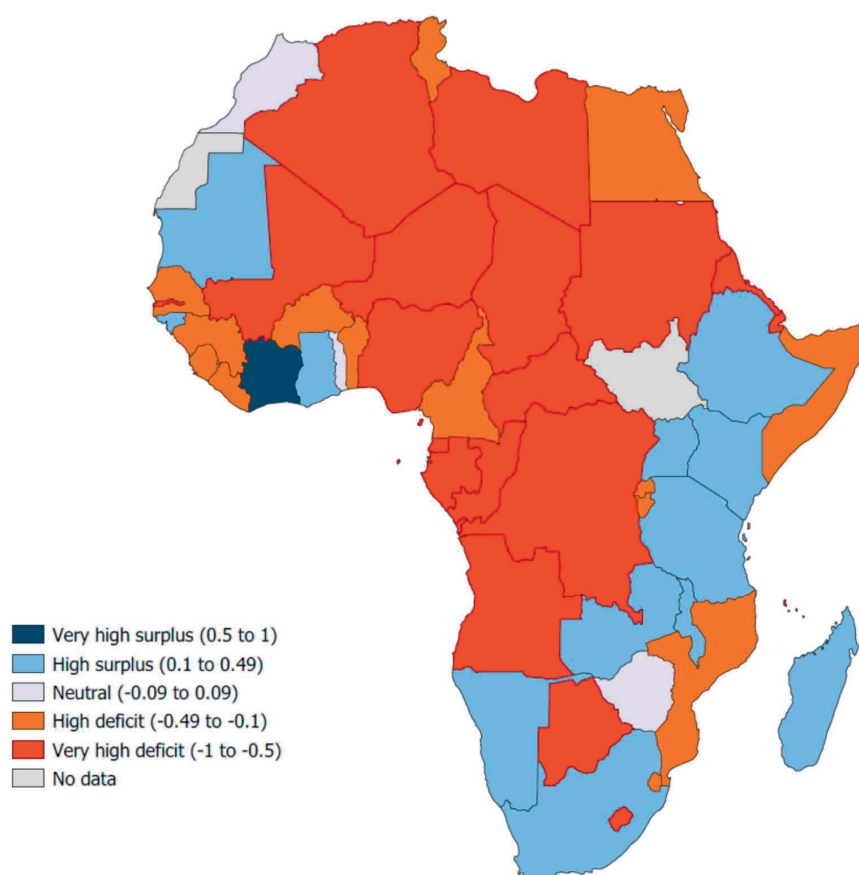
The commodity dependence index is computed as the share of the value of exports in primary products consisting of agricultural goods and natural resources over the total value of exports. It varies from 0 to 100. High dependence implies more exposure to shocks in the prices of natural resources and agricultural commodities. Primary goods include SITC 0, 1, 2, 3, 4 and 68.

Food trade deficit is prevalent in the African continent

Most African countries are net food importers with few exceptions in East, West and South Africa (Map 4a). Similarly, many African countries, except some countries in Northern and Central Africa, are net energy importers (Map 4b). Interestingly, while many net food exporters are net energy importers, a significant number of net food importers are net energy exporters. Few African countries have a dependence in both product groups.

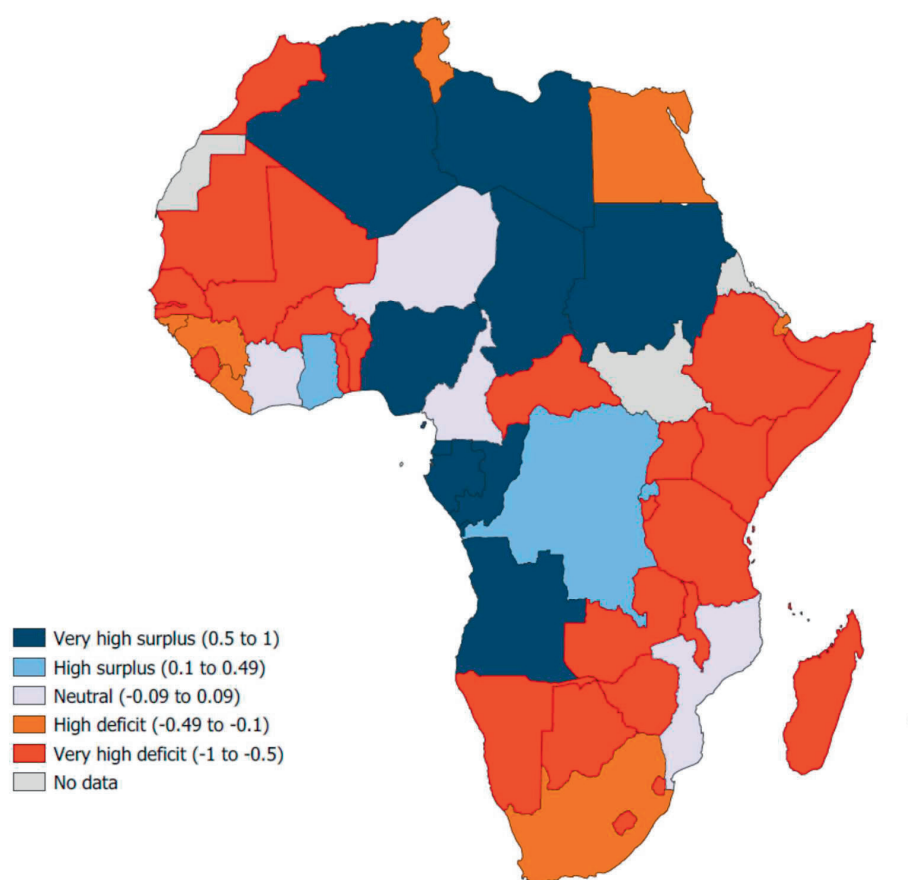
Map 4: Commodity export dependence II

a) Food dependence index, 2016



Source: UNCTAD calculations based on UNCTADstat.

b) Energy dependence index, 2016



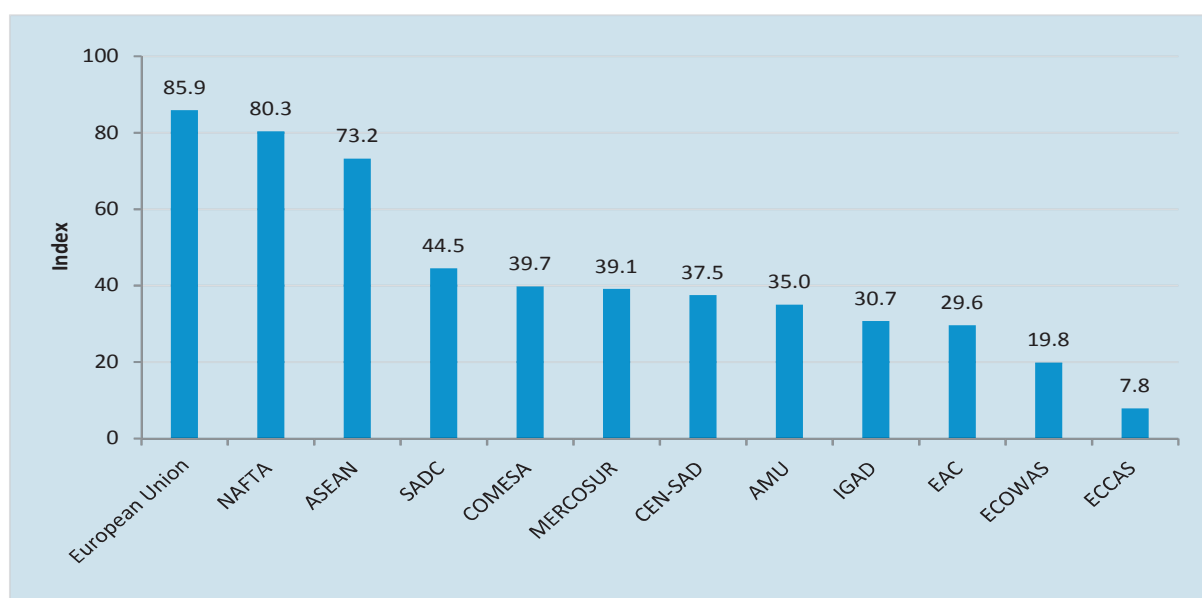
Source: UNCTAD calculations based on UNCTADstat.

Food dependence is computed by subtracting a country's total food product exports from its food product imports. This is then divided by the countries' total food trade (imports plus exports). The index varies between -1 and 1, with positive values meaning that the country exports more food products than it imports. The main component of the energy dependence index is computed by subtracting a country's fuel exports from imports. This is then normalized by dividing by its trade in fuel 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. Food products include SITC 0, 1, 22 and 4 categories. Fuel products include SITC 3 category.

***African countries do not often import what other African countries export:
Immediate potential to increase intra-African trade is limited***

The trade complementarity index assesses the trade potential among a group of countries. Low figures indicate a low correspondence or match between the export supply and import demand among the REC members. RECs in Africa tend to have very small trade complementarity indexes indicating low correspondence (similarity) between the export compositions of a member state with the import structure of other member states in the same REC (figure 15). The figures are particularly low for ECOWAS and ECCAS. A low complementarity may indicate a weak potential effect of trade policies such as reducing tariffs and transportation costs in boosting regional trade in the short to medium run. In other regions, such as Association of South East Asian Nations (ASEAN), the European Union and NAFTA the index is higher. These regions, however, also have high intra-industry trade shares and often similar endowments. Thus, intra-regional trade can develop over time.

Figure 15
Trade complementarity index among REC member states, 2016



Source: UNCTADstat.

The merchandise trade complementarity index measures the degree how the export profile of country (or country group) *j* matches the import profile of country (or country group) *k*, the trade partner of country *j*. The index value ranges from 0 to 100 with 0 indicating that there is no correspondence between country *j*'s export structure and country *k*'s import structure and 100 indicating a perfect match in their export/import pattern. Two countries with a high index may gain from trade expansion following a preferential trade agreement. However, a high complementarity index may not indicate ideal trading partners if the two countries are at distant locations or with high transportation and transaction costs. A high complementarity index may also be misleading if the size difference of two economies is large (i.e., a match in percentage terms does not imply a match in levels). In computing the complementarity indices in figure 15, export and import structures of RECs for 2016 are used.

3. SERVICES TRADE AND INVESTMENT FLOWS

Services exports increase and are more resilient to shocks

Travel services is the main services export of African countries (\$35.3 billion), followed by transportation services (\$26.4 billion) (figure 16a). Africa's services exports remained mostly relatively resilient to the 2016 world trade downturn. Despite their importance in Africa's exports, both transport and travel services account for less than 3.5 per cent of world services trade in those categories (figure 16b). Africa only has in government goods and services a sizable market share (7.6 per cent) in the world. However, this item is not considered commercial services.

Figure 16
Market shares of Africa's services exports by sector

Figure 16a: Africa's services exports by category (2005, 2010 and 2016) (billion US\$)

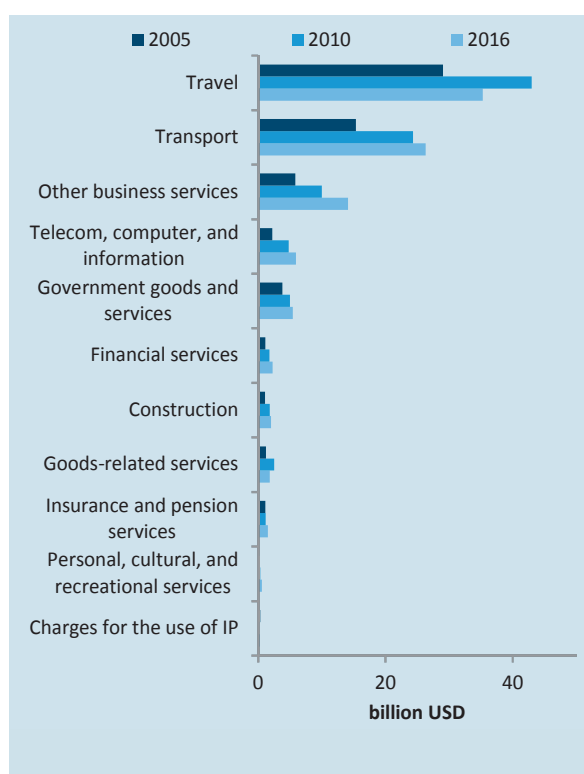
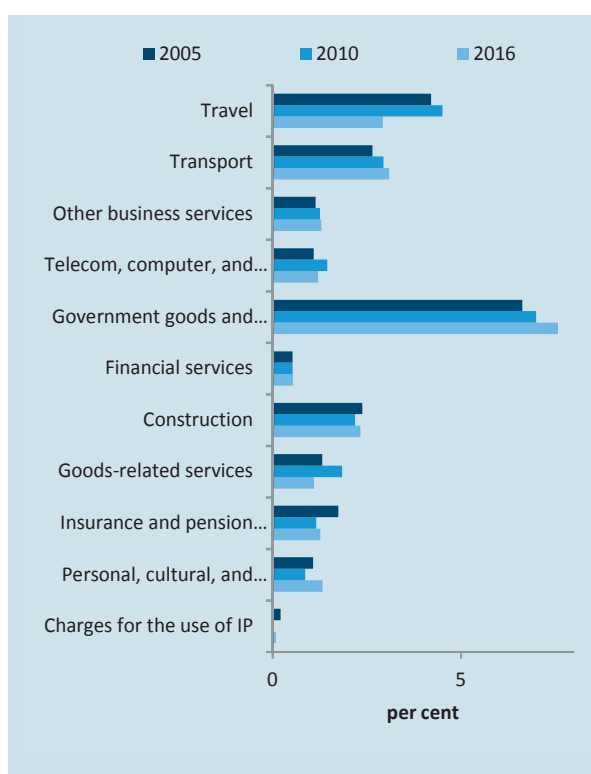


Figure 16b: Market share of Africa's services exports in world total by category (2005, 2010 and 2016) per cent



Source: UNCTADstat.

Travel and transport are the largest categories in Africa's services exports (figure 16a). These two are followed by other business and government goods and services n.i.e. Africa's export of services has increased gradually from 2005 to 2016 in almost all sectors and the sector has in general shown resilience to the recent global downfall in world trade. Figure 16b shows the share of Africa's services exports in world trade from 2005 to 2016 by category. The continent captures about 2 per cent of the world total and this share has been declining during the last decade. Africa has the biggest world share in government goods and services which mainly includes goods and services supplied or received by enclaves such as embassies and military bases and it is not part of commercial services.

FDI flows are important for African economies despite their small absolute value

Inward Foreign Direct Investments (FDI) can play a crucial role in building local productive capacities. In contrast to world trade, global FDI flows rose by 34 per cent, to \$1.8 trillion in 2015, the highest level since the beginning of the global economic and financial crisis in 2008. Even though the flows contracted by 1.6 per cent in 2016, they are expected to recover in 2017 by 5 percent.⁷ In 2016 countries in the world received \$236 dollar per capita in the form of FDI (figure 17a). There is an investment gap between developed and developing countries. The former is receiving about 10 times more in direct investment per capita than the latter. African countries are receiving \$49 per capita. Particularly IGAD and EAC are facing challenges in attracting FDIs. Though in absolute terms they are small, FDIs account for a significant share of national incomes in Africa (figure 17b). The figure is as high as 7.9 per cent for ECCAS.

Figure 17
FDI flows

Figure 17a: FDI inflows per capita, by region, in US\$ (2016)

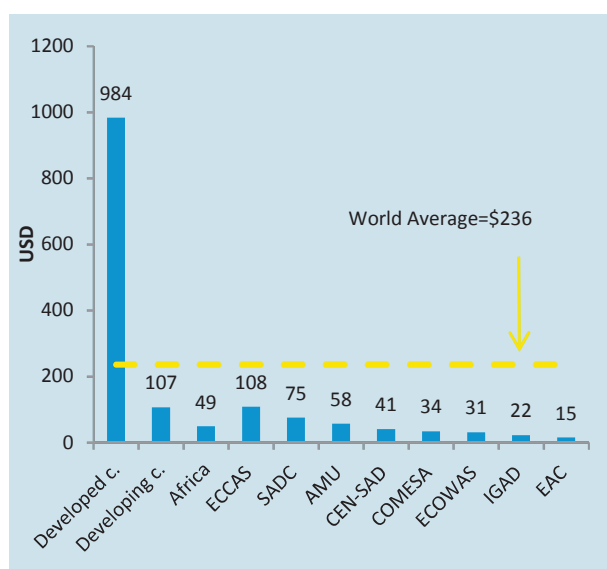
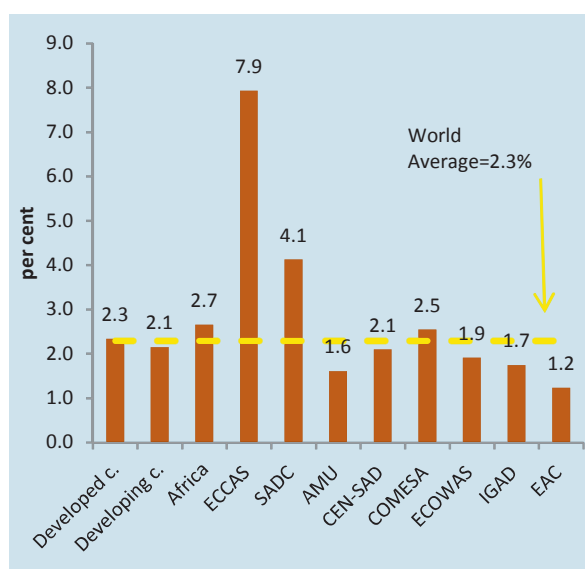


Figure 17b: Share of FDI inflows in GDP, by region (2016)



Source: UNCTADstat.

FDI refers to an investment made to acquire lasting interest in enterprises operating outside of the economy of the investor. The investor's purpose is to gain an effective voice in the management of the enterprise. The forms of investment by the direct investor which are classified as FDI are equity capital, the reinvestment of earnings and the provision of long-term and short-term intra-company loans (between parent and affiliate enterprises).⁸

⁷ UNCTAD (2017). *World Investment Report: Investment and the Digital Economy* (United Nations Publication. Sales No. E.17.II.D.3. New York and Geneva).

⁸ [http://unctad.org/en/Pages/DIAE/Foreign-Direct-Investment-\(FDI\).aspx](http://unctad.org/en/Pages/DIAE/Foreign-Direct-Investment-(FDI).aspx)

4. TRADE FACILITATION

Some regions in Africa not ready for e-commerce

UNCTAD's Business to Consumer (B2C) E-commerce Index measures the readiness of countries to engage in online commerce. The developed countries' index average is about twice the figure for developing countries (figure 18a). In Africa, the index is 32.2, much smaller than the developing country average. The index varies considerably among the RECs (figure 18b). AMU and SADC score better than others while ECCAS achieves the lowest index.

Figure 18
UNCTAD E-Commerce index

Figure 18a: Weighted E-Commerce Index by region (2017)

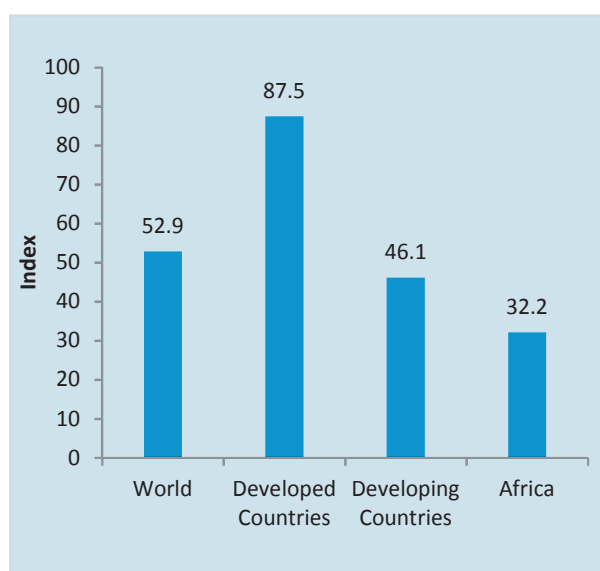
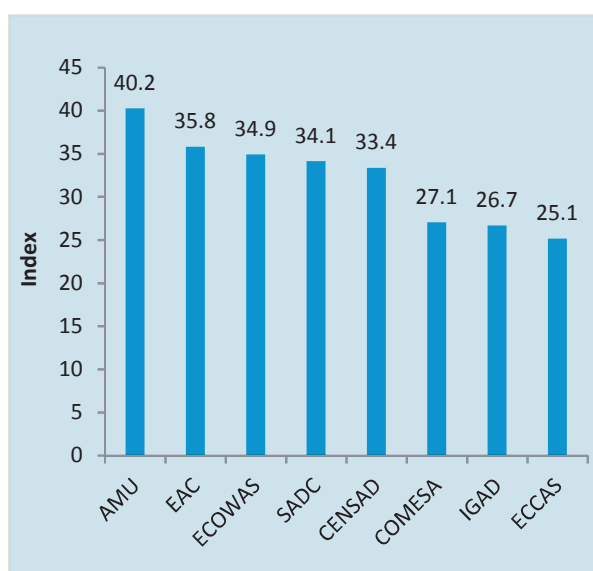


Figure 18b: Weighted E-Commerce Index by African RECs (2017)



Source: UNCTAD (2016) "UNCTAD B2C E-Commerce Index 2017", UNCTAD Technical Notes on ICT for Development, No:9 for index values. UNCTADstat for population figures. UNCTAD calculations.

UNCTAD's B2C E-commerce Index is a composite indicator including four indicators: Internet use penetration, secure servers per 1 million inhabitants, credit card penetration and a postal reliability score. In 2017, seven out of the 10 economies with the highest score are European countries and three are from the Asia-Pacific region. Population figures are used to calculate weights. Due to data limitations the sample includes 147 countries of which 40 are African, 37 are developed countries and 97 are developing countries. For calculating the REC averages, index values for 12 SADC, 5 EAC, 12 ECOWAS, 15 COMESA, 6 ECCAS, 4 AMU, 5 IGAD, and 20 CEN-SAD member States were used.

Africa not well connected to world markets – but catching up fast

Countries' access to world markets depends largely on their transport connectivity, especially their shipping services for the import and export of manufactured goods. African countries' connectivity index is much smaller compared to the world average (figure 19a). From 2004 to 2017 the index increased by 102 per cent in Africa, much higher than the increase of the world average (68 per cent). The connectivity score varied considerably across the RECs (figure 19b). AMU achieved the fastest improvement while EAC's relative position has deteriorated during this period.

Figure 19
Liner shipping connectivity index, 2004, 2010 and 2017

Figure 19a: Liner Shipping Connectivity Index, Africa and world average, (2004, 2010 and 2017), index

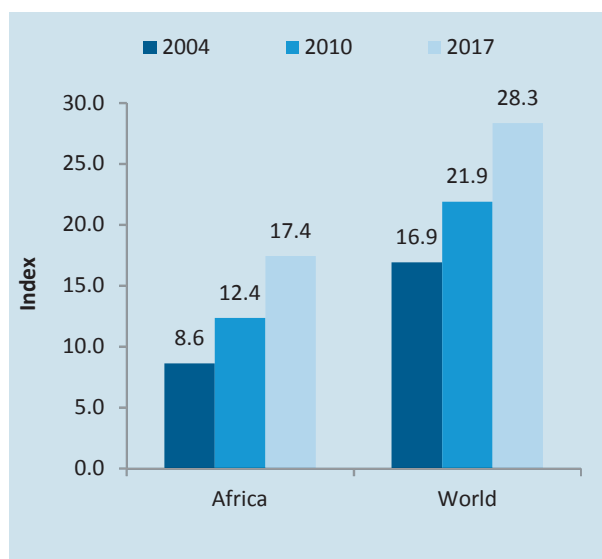
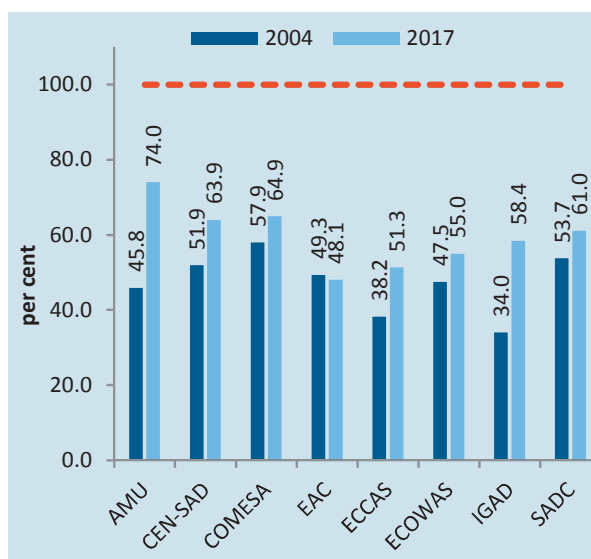


Figure 19b: Liner Shipping Connectivity Index of African RECs relative to the world average, (2004 and 2017), per cent



Source: UNCTAD calculations based on UNCTADstat.

The liner shipping connectivity index measures a country's integration level into global liner shipping networks. The current version is generated from five components: (a) the number of ships; (b) the total container-carrying capacity of those ships; (c) the maximum vessel size; (d) the number of services; and (e) the number of companies that deploy container ships on services from and to a country's ports.

The index is computed as follows: for each of the five components, a country's value is divided by the maximum value of that component in 2004, and for each country, the average of the five components is calculated. This average is then divided by the maximum average for 2004 and multiplied by 100. In this way, the index generates the value 100 for the country with the highest average index of the five components in 2004. China's 2004 value equals 100. To compute the world and the Africa average statistics, 156 and 38 countries are used, respectively. Simple averages are used.

Starting a business is easy but trading across borders difficult

Africa's performance in business environment varies considerably across different indicators. Even though starting a business is relatively easy in Africa, there are challenges in other key determinants of investment such as resolving insolvency and trading across borders (figure 20a). African RECs' performances across the indicators also vary considerably. Overall EAC tend to perform better while ECCAS and IGAD perform worse than others (figure 20b).

Figure 20
Doing business indicators

Figure 20a: Africa and World Average by Various Categories, 2017

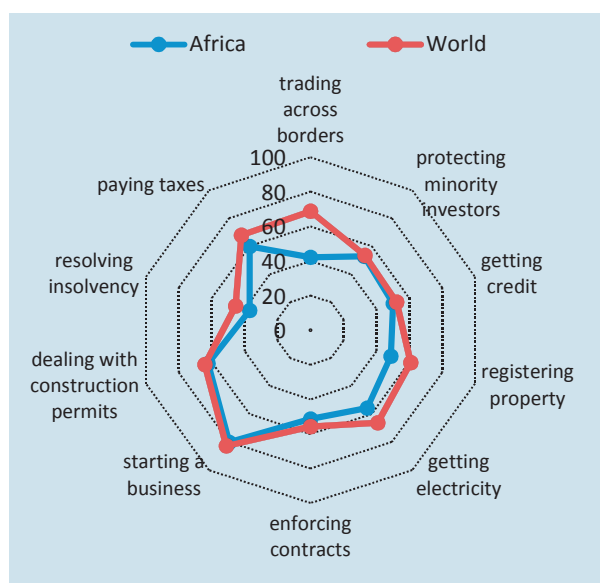
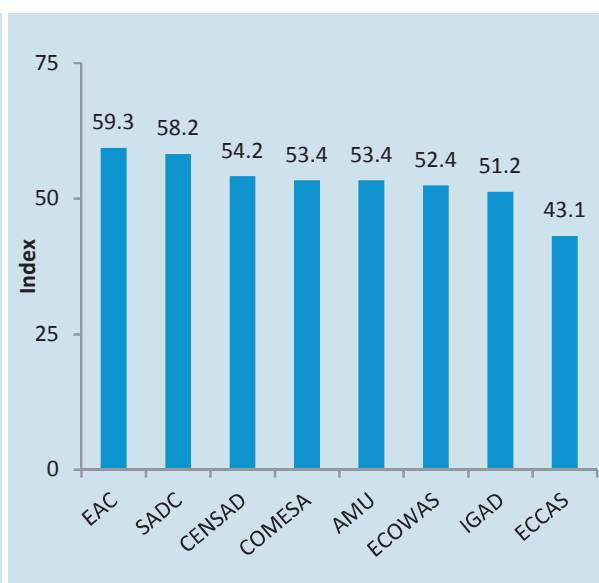


Figure 20b: African RECs Average of 10 Broad Categories, 2017



Source: UNCTAD calculations based on World Bank Doing Business Indicators 2017.

The Doing Business project is conducted by World Bank and provides measures of business regulations and their enforcement across 190 economies and selected cities at the subnational and regional level. The 2016 report covers 10 indicator sets and 190 economies. To compute the African and RECs' averages, 2016 GDP figures are used as weights. Each indicator measures the performance of a country compared with the best performing country (set to 100). Indicator vary between 0 and 100 where higher figures indicate better performance.

African countries better connected to European Union, China and the United States than to Africa

The bilateral connectivity index measures connectivity between country pairs. These indexes can be used to compute the average connectivity of African countries with other economies. On average African countries are better connected to the European Union, China and the United States than with the other African countries (figure 21a). None of the African RECs is an exception to this finding: Intra-African connectivity is the weakest compared to these three benchmark cases (figure 21b). China seems to have the strongest connectivity with the continent, followed by the United States.

Figure 21
Liner shipping connectivity index among regions

Figure 21a: Bilateral Liner Shipping Connectivity Within Africa and Between Africa and Selected Economies, (2016), index

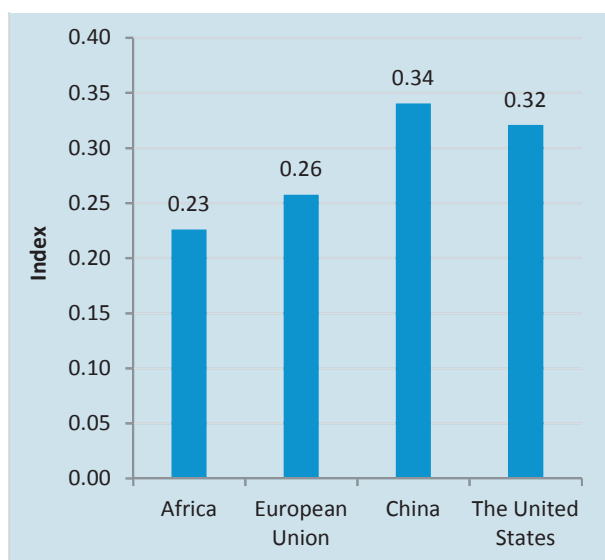
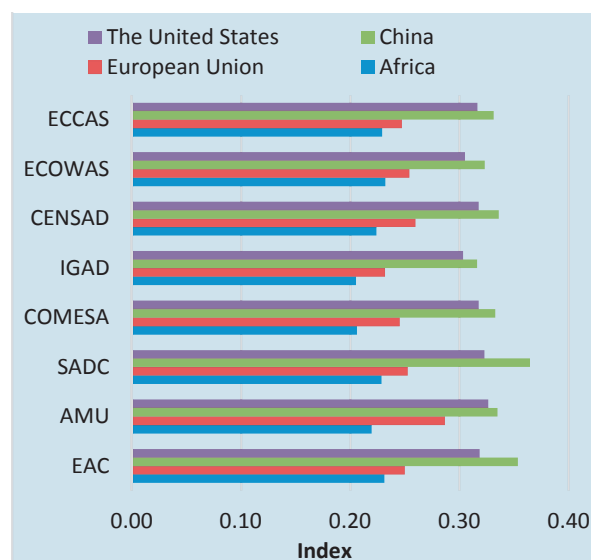


Figure 21b: Bilateral Liner Shipping Connectivity Between African RECs and Africa, European Union, China and the United States, (2016), index



Source: UNCTAD calculations based on UNCTADstat.

The liner shipping bilateral connectivity index is an extension of UNCTAD's country-level Liner Shipping Connectivity Index and based on a proper bilateral transformation. The index is meant to reflect specifically the liner shipping connectivity between pairs of countries. It includes five components which include (a) the number of trans-shipments required to get between countries; (b) the number of direct connections common to both countries; (c) the geometric means of the number of direct connections between the countries; (d) the level of competition on services that connects countries; (e) the size of the largest ships on the weakest route connecting the countries. The data are derived from Containerisation International Online and Lloyd's List Intelligence. All components are normalized and the index is computed by taking the simple average of the five normalized components. The index can only take values between 0 (minimum) and 1 (maximum) and higher values indicate stronger connectivity. Statistics for 38, 2, 5, 9, 11, 5, 23, 12, 7 and 23 countries from Africa, EAC, AMU, SADC, COMESA, IGAD, CEN-SAD, ECOWAS, ECCAS and European Union countries were used respectively. Figures are simple averages of individual country statistics.

EAC and ECOWAS better regionally integrated than other African regions

The Africa Regional Integration Index (RII) tracks progress in regional integration in Africa. African countries achieve the highest integration score in movement of goods while they register weaker performance in productive integration, and financial integration and macroeconomic policy convergence areas (figure 22a). EAC and ECOWAS score higher in these indexes while CEN-SAD and COMESA lag behind others (figure 22b).

Figure 22
Africa Regional Integration Index (RII)

Figure 22a: Africa RII by sub-indexes, 2016

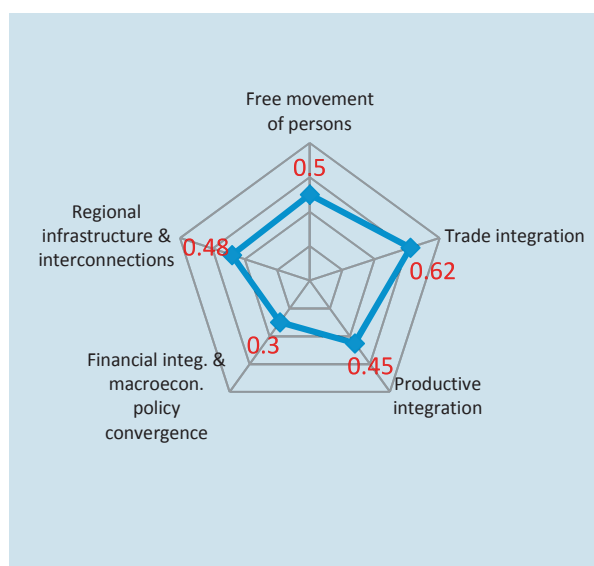
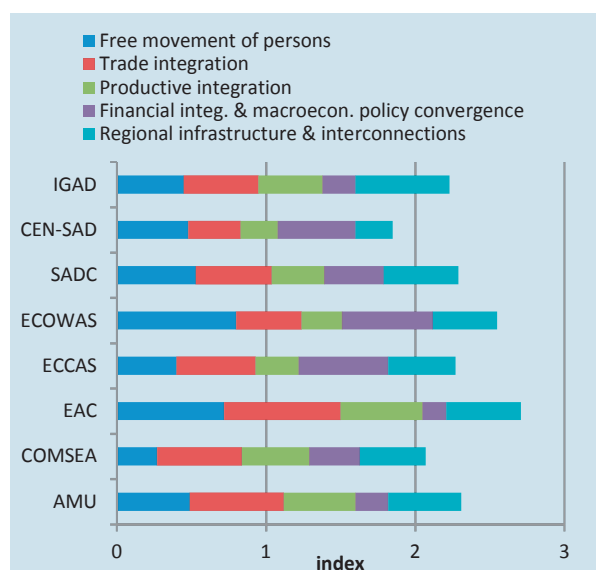


Figure 22b: RII by RECs, 2016



Source: Africa Regional Integration Index website <https://www.integrate-africa.org>.

The Africa Regional Integration Index has been developed and produced by African Union, African Development Bank and United Nations Economic Commission for Africa. The index aims to monitor and evaluate regional integration in Africa by using a comprehensive set of indicators in the areas of transportation, energy, telecommunications, finance, etc. to measure the ease of movement of goods, capital and people across borders as well as policy coordination among member States.

The Index has five main sub-indexes: Free movement of persons, trade integration, productive integration, financial integration and macroeconomic policy coordination, and regional infrastructure and interconnectedness. Based on data availability 16 indicators are used to compute these five sub-indexes, which are then used to construct the overall index.

The RII 2016 report covers the member States of the eight RECs that are recognized by the African Union as building blocks. The indicators and sub-indexes chosen for the index are based on the Abuja Treaty and its operational framework. The data covers the 2010-2014 period (where most data is available) or an average of the years in this period. The Index uses the standard MinMax method of scaling results from 0-1 (best), therefore higher values indicate better integration.

5. TARIFFS AND NTMs

African producers face lower tariffs than those from the world or the European Union but room for tariff reductions in intra-African and intra-RECs' trade exist

Average tariff rates vary greatly among RECs (table 2). Intra-REC trade is mostly subject to lower tariff rates than trade between RECs, and intra-African trade faces lower tariffs than imports from outside of Africa. Agricultural products tend to face higher tariff rates than industrial products.

Table 2
Sample average tariff rates by product group, 2016 (per cent)

All Products				Exporter							
Importer	World	European Union	Africa	AMU	CEN-SAD	COMESA	EAC	ECCAS	ECOWAS	IGAD	SADC
Africa	9.7	8.9	5.6	12.3	8.0	5.0	2.9	8.1	6.9	5.1	4.0
AMU	8.7	9.8	8.9	6.3	6.8	8.9	16.0	14.4	14.0	12.8	16.6
CEN-SAD	10.8	8.3	9.4	12.5	7.4	11.4	8.6	12.2	4.9	14.9	12.8
COMESA	8.6	12.9	3.7	6.9	5.4	2.5	1.1	5.5	15.2	2.2	3.3
EAC	11.8	13.3	5.2	15.1	4.1	1.7	0.1	5.4	18.1	0.9	6.9
ECCAS	12.7	13.0	9.4	17.6	9.5	3.4	0.6	9.1	15.7	0.9	12.1
ECOWAS	12.5	12.5	9.3	14.4	7.3	14.8	15.1	14.0	4.6	15.4	13.3
IGAD	11.9	7.1	7.4	15.7	3.1	1.0	0.2	3.5	17.8	1.2	10.3
SADC	7.9	5.6	3.1	14.2	10.9	4.3	4.5	5.6	12.1	7.4	1.5

Agriculture				Exporter							
Importer	World	European Union	Africa	AMU	CEN-SAD	COMESA	EAC	ECCAS	ECOWAS	IGAD	SADC
Africa	15.1	18.3	6.9	17.4	8.6	5.5	2.3	9.3	6.8	4.2	5.9
AMU	18.7	17.7	15.8	16.6	14.8	15.4	16.9	18.4	13.3	14.7	20.0
CEN-SAD	20.0	23.2	11.6	18.6	9.0	13.8	6.8	9.3	5.3	14.0	18.1
COMESA	14.7	20.8	5.0	7.9	3.5	2.6	0.7	6.8	14.8	1.6	5.8
EAC	18.3	23.3	6.9	41.9	2.3	2.1	0.1	6.7	20.9	0.5	11.8
ECCAS	21.2	23.5	14.5	22.1	10.4	5.7	0.4	12.5	22.8	0.8	22.0
ECOWAS	16.9	19.3	10.7	19.6	8.4	18.6	19.4	13.5	5.0	19.9	17.9
IGAD	19.0	22.6	10.2	44.3	1.3	0.9	0.4	3.1	19.4	1.3	16.3
SADC	10.2	11.5	3.9	13.2	9.5	4.5	4.2	9.4	11.5	6.4	2.7

Industry				Exporter							
Importer	World	European Union	Africa	AMU	CEN-SAD	COMESA	EAC	ECCAS	ECOWAS	IGAD	SADC
Africa	9.2	8.0	5.4	11.8	7.9	4.9	2.9	7.9	6.9	5.2	3.8
AMU	8.0	4.9	8.1	5.5	5.8	8.1	15.2	14.0	14.4	11.3	16.3
CEN-SAD	9.9	8.5	9.1	11.7	7.2	11.1	8.8	12.4	4.9	15.0	12.2
COMESA	8.0	7.1	3.5	6.8	5.7	2.5	1.2	5.2	15.3	2.3	3.0
EAC	11.3	12.0	4.9	13.6	4.4	1.7	0.0	5.1	18.0	0.9	6.2
ECCAS	11.8	12.1	8.7	17.3	9.4	3.0	0.6	8.3	15.2	0.9	10.6
ECOWAS	12.1	12.3	9.1	13.6	7.1	14.5	14.9	14.1	4.5	15.2	12.8
IGAD	11.3	11.7	7.1	14.1	3.3	1.0	0.1	3.6	17.8	1.2	9.5
SADC	7.7	6.7	3.0	14.3	11.1	4.3	4.5	5.3	12.2	7.6	1.3

Source: UNCTAD secretariat calculations based on UNCTAD TRAINS.

Reading example: On average, exporters from EAC face a tariff of 2.9 per cent when exporting to Africa and 0.1 per cent when exporting to other EAC countries. Exporters from the European Union face 8.9 and 13.3 per cent in these regions.

Table 2 shows simple average tariffs imposed on trade flows between regions and imports from the world and the European Union in 2016. Differences in the rates arise from different effective tariff rates (e.g. MFN vs preferential) and varying product compositions. The effect of regional trade agreements is reflected in the relatively lower degree of restrictiveness on intra-regional compared with inter-regional trade. Figures include Ad Valorem Equivalents (AVEs) of specific tariffs. Based on the availability of data in TRAINS.

Most African RECs have preferential access in African market (positive figures in table 3). However, AMU and ECOWAS countries do not have preference in many other African RECs. Preferential access to African markets for the RECs is more pronounced in agricultural products than industrial goods.

Table 3
Trade preference matrix, 2016 (per cent)

All Products		Exporter								
Importer	European Union	Africa	AMU	CEN-SAD	COMESA	EAC	ECCAS	ECOWAS	IGAD	SADC
Africa	2.9	6.2	-0.5	3.8	6.8	8.9	3.7	4.9	6.7	7.8
AMU	4.2	5.0	7.7	7.2	5.0	-2.0	-0.5	-0.1	1.1	-2.6
CEN-SAD	4.7	3.7	0.6	5.6	1.7	4.5	0.9	8.2	-1.8	0.3
COMESA	-1.8	7.4	4.2	5.7	8.6	10.0	5.6	-4.1	8.9	7.7
EAC	-0.5	7.7	-2.3	8.7	11.1	12.8	7.4	-5.2	12.0	5.9
ECCAS	1.3	4.9	-3.2	4.8	10.9	13.8	5.2	-1.4	13.4	2.2
ECOWAS	-0.3	2.9	-2.3	4.9	-2.7	-3.0	-1.9	7.6	-3.3	-1.2
IGAD	5.8	5.4	-2.8	9.8	11.9	12.7	9.4	-5.0	11.7	2.6
SADC	3.5	6.0	-5.0	-1.7	4.9	4.7	3.6	-2.9	1.8	7.7

Agriculture		Exporter								
Importer	European Union	Africa	AMU	CEN-SAD	COMESA	EAC	ECCAS	ECOWAS	IGAD	SADC
Africa	-0.5	10.9	0.4	9.2	12.3	15.5	8.5	11.0	13.6	11.9
AMU	9.6	11.5	10.7	12.4	11.9	10.4	8.9	14.0	12.6	7.2
CEN-SAD	-2.2	9.5	2.4	12.0	7.3	14.2	11.7	15.7	7.0	2.9
COMESA	-1.5	14.3	11.4	15.8	16.7	18.6	12.5	4.5	17.8	13.5
EAC	-3.3	13.1	-21.9	17.8	17.9	19.9	13.3	-0.9	19.5	8.2
ECCAS	-3.8	5.2	-2.4	9.3	14.0	19.3	7.2	-3.1	18.9	-2.3
ECOWAS	-3.5	5.2	-3.7	7.4	-2.7	-3.6	2.4	10.9	-4.1	-2.0
IGAD	-2.4	9.9	-24.1	18.9	19.3	19.8	17.1	0.8	18.9	3.8
SADC	1.5	9.0	-0.3	3.4	8.4	8.7	3.5	1.4	6.6	10.2

Industry		Exporter								
Importer	European Union	Africa	AMU	CEN-SAD	COMESA	EAC	ECCAS	ECOWAS	IGAD	SADC
Africa	2.8	5.4	-0.9	2.9	5.9	7.9	2.9	3.9	5.6	7.1
AMU	6.8	3.6	6.3	5.9	3.7	-3.5	-2.3	-2.6	0.5	-4.6
CEN-SAD	3.3	2.6	0.1	4.5	0.7	2.9	-0.6	6.9	-3.2	-0.4
COMESA	2.6	6.2	2.9	4.1	7.2	8.5	4.5	-5.6	7.4	6.7
EAC	-0.4	6.7	-2.0	7.3	10.0	11.6	6.5	-6.4	10.7	5.5
ECCAS	1.3	4.8	-3.8	4.0	10.5	12.9	5.1	-1.8	12.5	2.8
ECOWAS	-0.7	2.4	-2.1	4.4	-2.9	-3.3	-2.6	7.0	-3.6	-1.3
IGAD	0.0	4.6	-2.5	8.3	10.6	11.5	8.1	-6.2	10.5	2.2
SADC	1.9	5.5	-5.8	-2.6	4.3	4.0	3.3	-3.7	1.0	7.3

Source: UNCTAD secretariat calculations based on UNCTAD TRAINS database.

Reading example: On average, exporters from EAC face tariffs that are 8.9 percentage points lower than the tariffs faced by exporters outside of Africa. EAC exporters of industrial goods face in AMU on average 3.5 per cent higher tariffs than exporters from outside of Africa.

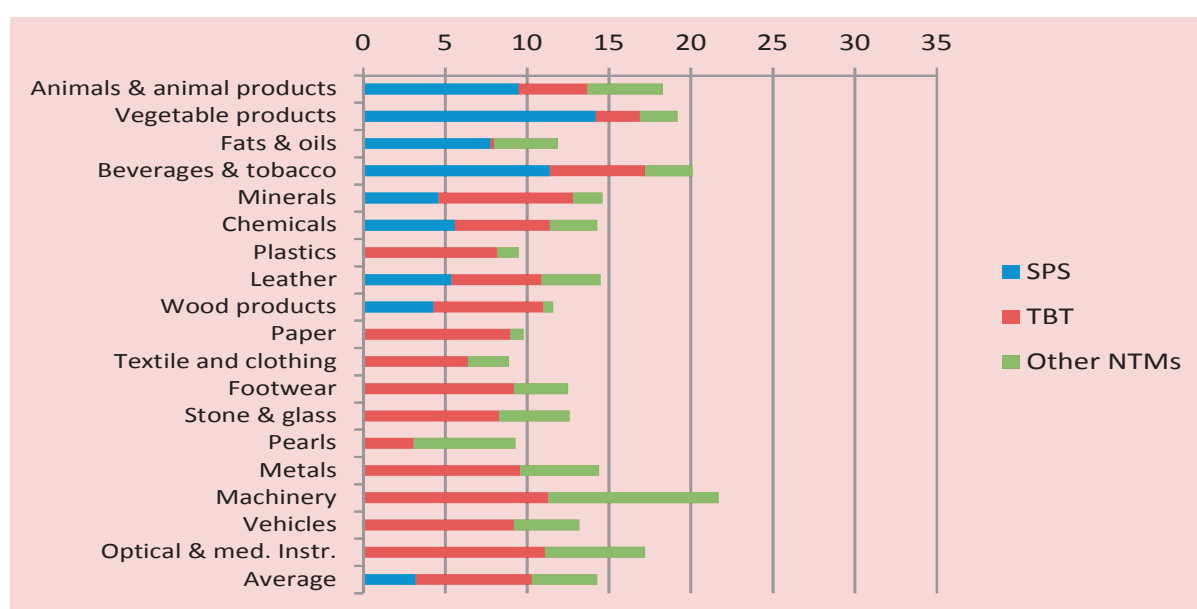
Table 3 shows the trade preferences on trade flows between African RECs and imports from the European Union in 2016. They are computed by the importing region's simple average MFN tariffs imposed on imports from the world minus simple average preferential tariffs imposed on imports from a region. The figure can be positive or negative, depending on the advantage or disadvantage a region has in terms of preferences with respect to the world average. Positive figures indicate trade preference (effectively applied rate is lower than the MFN rate). Negative numbers do not always imply explicit discrimination (i.e. deviation from MFN) but indicates a different product basket. Figures include AVEs of specific tariffs. Based on the availability of data in TRAINS.

Non-Tariff Measures more important than tariffs in Africa

Non-tariff measures (NTMs) tend to raise unit values of traded products in Africa by 15 to 30 per cent in food and agricultural sectors, and by five to 20 per cent in manufacturing sectors (figure 23). Sanitary and Phytosanitary (SPS) measures and Technical Barriers to Trade (TBT) are the most important measures for almost all sectors. SPS measures are more constraining for food products while TBT are more obstructive in manufacturing sectors.

These measures, however, also fulfil crucial public policy objective like the protection of human, animal and plant health, and the environment. Therefore, despite their restrictiveness, they cannot be eliminated and need to be addressed through regulatory convergence, regulatory transparency, improvements of quality infrastructure and capacity building. Other NTMs include traditional trade instruments such as quotas and non-automatic licenses.

Figure 23
Average NTM AVEs by sector in Africa



Source: Cadot et al. (2015).⁹

AVEs convert the effect of NTMs on trade into a figure that is comparable to a tariff, i.e. that equals the amount payable as if it was taxed on the basis of its value. AVEs for TBT measures are high in Africa compared with other regions, particularly in the vehicle and machinery industries as well as in the textile and footwear industries. Across sectors in Africa and Latin America, non-technical NTMs, such as quotas, non-automatic licenses and price controls, also raise prices significantly. In Asia, such trade barriers are more common in manufacturing sectors. AVEs are taken from the UNCTAD study Cadot et al. (2015) which estimates the AVE impact of different types of NTMs on traded products.

⁹ Cadot O, Asprilla A, Gourdon J, Knebel C and Peters R (2015). Deep Regional Integration and Non-Tariff Measures: A Methodology for Data Analysis. UNCTAD Policy Issues in International Trade and Commodities Research Study Series no. 69.

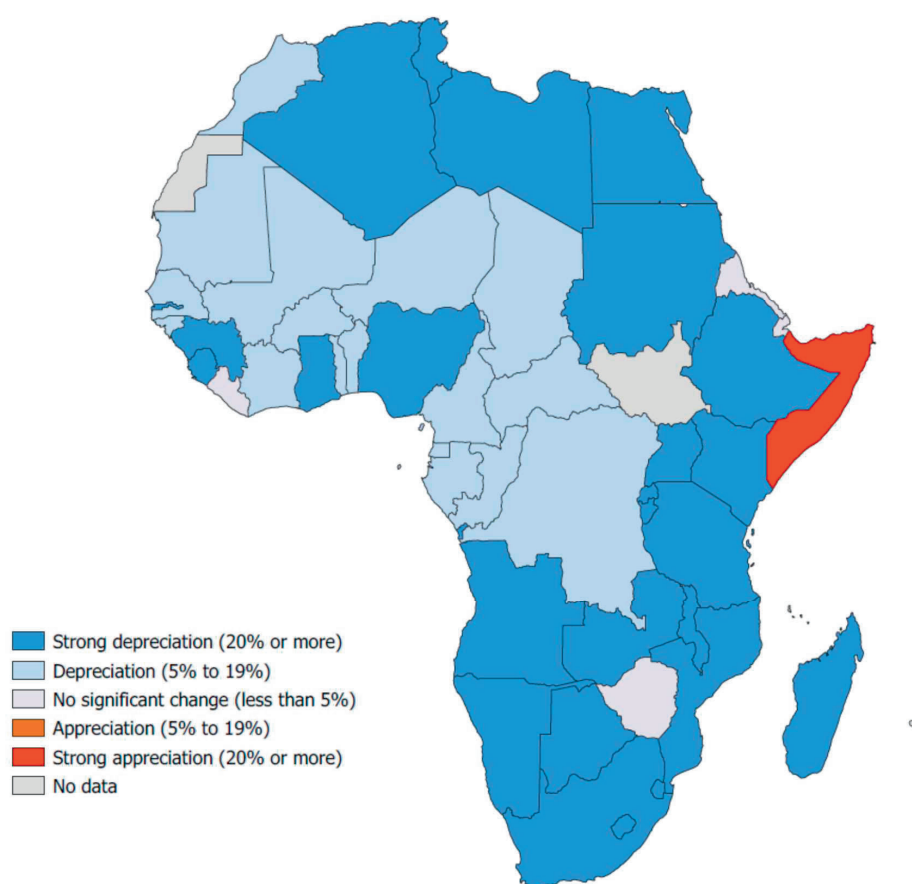
6. EXCHANGE RATES AND COMPETITIVENESS

Many African currencies depreciated against the US\$

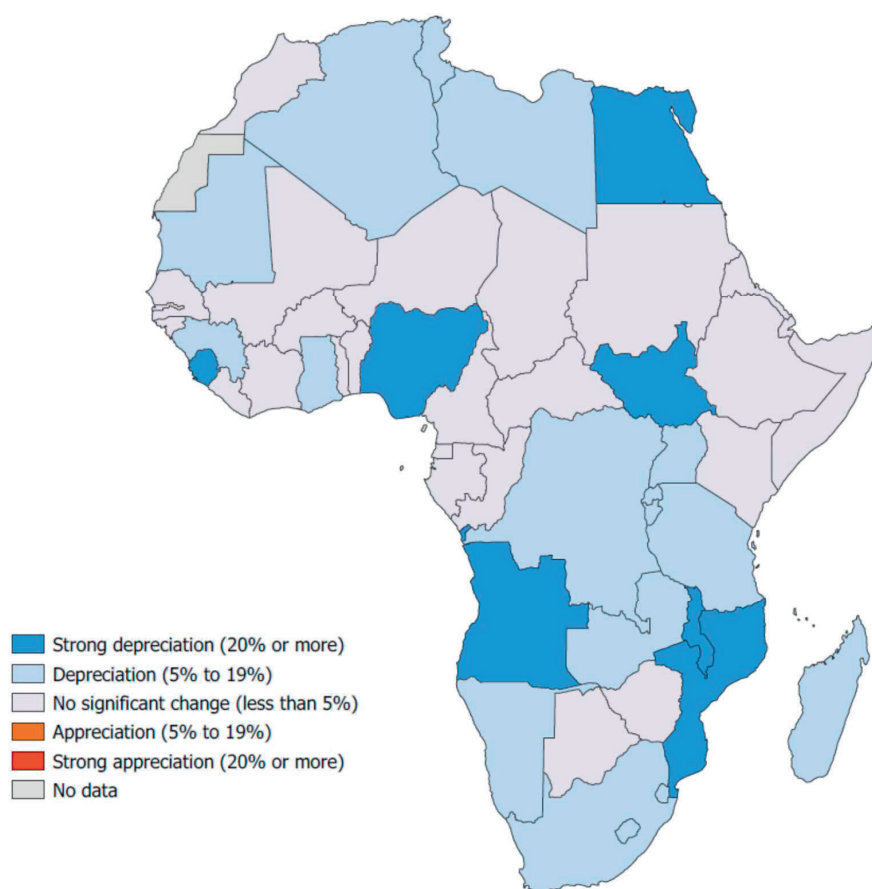
Movements in the nominal exchange rates versus the dollar can play a substantial role in determining the competitiveness of countries. Currencies of most African countries depreciated against the US\$ since 2010, some significantly, which decreased the US\$ price of their export products (map 5a). The trend continued in 2016 as the US\$ remained strong that year, with most currencies further depreciating (map 5b).

Map 5: Exchange rates changes vs US dollar

a) Exchange rate changes versus US\$ (2010-2016)



Source: UNCTAD calculations based on UNCTADstat.

b) Exchange rate changes versus US\$ (2015-2016)

Source: UNCTAD calculations based on UNCTADstat.

As international trade transactions are generally conducted in US\$, appreciation and depreciations against the dollar can play a substantial role in the competitiveness of countries. Maps 5a and 5b portray the percentage change in nominal exchange rates of world currencies against the US\$ between 2010 and 2016, and between 2015 and 2016, respectively (annual average).

Africa's labour productivity is low

Labour productivity is an important indicator for the competitiveness. The average labour productivities in Africa and African RECs are well below the world average, with the only exception of AMU that mainly includes oil rich countries (figure 24a). For Africa as a whole, labour productivity is less than half of the world average. All regions reported productivity declines between 2010 and 2017 when compared to the world average (figure 24b).

Figure 24
Labour Productivity

Figure 24a: Africa, African RECs and world average, 2010 and 2017

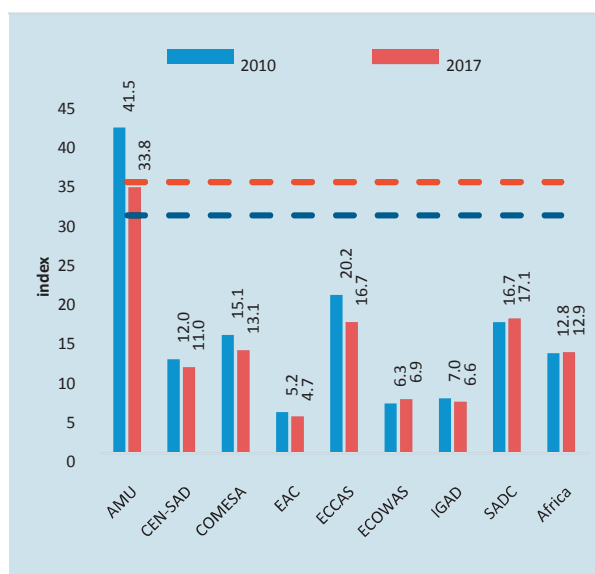
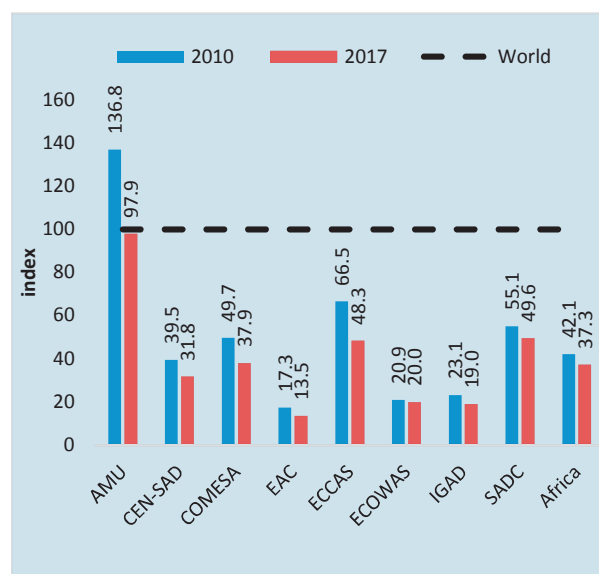


Figure 24b: Africa and African RECs, World average=100, 2010 and 2017



Source: UNCTAD calculations based on ILOSTAT and UNCTADstat.

Labour productivity is calculated by the ILO, dividing GDP (in constant 2011 international dollars in PPP; derived from the World Development Indicators database of the World Bank) by the total number of employment (ILO estimates). Thus, productivity is output per worker. The figures for Africa and African RECs are simple averages. In computing the averages, available statistics for 54, 5, 28, 18, 6, 11, 15, 8 and 14 countries are used for Africa, AMU, CEN-SAD, COMESA, EAC, ECCAS, ECOWAS, IGAD and SADC regions, respectively.

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