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Regional Trade Integration in Eastern and Southern Africa

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Introduction

Regional integration is often seen as a powerful development strategy that provides a large parallel market for the development of new industries and minimizes external shocks through increased national income and bargaining power (Balassa 1961). At regional and subregional levels, economic cooperation has been one of the fundamental policy options for many developing countries in the last three decades (Jones 2002). There is consensus among policy makers, researchers, and political leaders that Africa could develop faster through regional integration. The United Nations Economic Commission for Africa (UNECA, 2017) has suggested that regional integration and trading blocs are critical for African nations to achieve sustainable development and increase their participation in the global economy. In addition, UNECA has asserted that regional integration promotes economic growth and industrialization through fostering intraregional trade, infrastructure, and investment (McCarthy 1996). Cooperation of countries provides a huge market for new industrial development which reduces external vulnerability through increasing bargaining power and, in turn, improves standards of living. Regional trade cooperation of countries is regarded by UNECA as a key strategy to confront globalization challenges.

There is, therefore, a need to monitor and evaluate regional integration processes. This study documents the experiences of regional trade arrangements in the eastern and southern Africa (ESA) region, notably the Common Market for Eastern and Southern Africa (COMESA), for the periods 1960–1993 and 1994–2018. It also analyzes indicators of trade flows and trade costs, to see whether there was progress in terms of trade flow expansion and cost reduction. Analyzing trade flows and trade costs indicators, as well as tracing the experiences of regional trade arrangements in the region, provides important information for monitoring the regional integration process.

Countries engage in both formal and informal trade in the ESA region. When available, informal cross-border trade (ICBT) data can provide complete and comparable external trade statistics necessary for the computation of balance of trade, national accounts compilation, and various other indicators. This point is important, especially when evaluated against the findings in some studies, which have shown that informal trade may sometimes constitute a significant fraction of total trade (Gelan et al. 2010).

Consequently, the study also examined the magnitude and trends of informal agricultural trade, using the limited data available, and documented the major ICBT monitoring mechanisms that exist in the ESA region. The objective is to understand the strengths and weaknesses of these mechanisms in order to improve them.

The origins of the regional blocs in ESA date to the 1960s. However, we find that the regional trade arrangements did not achieve the desired outcomes. Analysis of both trade flows and trade cost indicators reveals that COMESA is lagging behind other continental counterparts. Intraregional trade flows are still low even when ICBT statistics are taken into account, and this may be attributable to high trading costs in the region. There is also evidence that COMESA member states are mostly trading with third countries, rather than with regional counterparts.

This chapter also highlights the possibility of using increased intraregional trade within COMESA as a means to raise the resilience of domestic food markets to shocks across their member countries, even under current production conditions.

This chapter has been updated since its initial publication.

It demonstrates that the pace of expanding regional trade and creating more resilient domestic food markets would be boosted through a modest reduction in the overall cost of trading, a similarly modest increase in crop yields, or the removal of barriers to transborder trade.

Section 6.2 presents a history of regional trade agreements (RTAs) in ESA. Sections 6.3 and 6.4 provide measurements of trade integration in the region, using a measure based on trade costs in section 6.3, and one based on trade flows in section 6.4. As there is considerable ICBT in the region, and as many initiatives have been launched to measure this phenomenon, section 6.5 is dedicated to the importance of ICBT. An analysis of the potential for regional trade to stabilize food markets is presented in section 6.6. It is followed by an assessment of the scope for cross-border trade expansion in section 6.7. The future outlook for intraregional trade expansion is projected in section 6.8 and the implications of the volatility of regional food markets are explored in section 6.9. We conclude the chapter in section 6.10.

History of regional trade agreements in in eastern and southern Africa

UNECA became the champion of regional integration in Africa for the purposes of economic development and proposed the division of the continent into regions in the 1960s. As a result, UNECA promulgated the Lagos Plan of Action (LPA) which was launched by the Organisation of African Unity (now the African Union) in 1980. This led to the creation of separate but convergent and overarching regional arrangements in four African subregions: ESA, West Africa, Central Africa, and the Great Lakes region.

The ESA region registered the highest number of regional economic communities (RECs) in Africa, all characterized by multiple and overlapping membership. Before the launch of the LPA in 1980, the ESA region had already witnessed the creation of the East African Community (EAC) in 1967, of the Southern African Customs Union (SACU) in 1889 (revamped in 1969), and of the Economic Community of the Great Lakes Countries (CEPGL for the French acronym: Communauté Economique des Pays des Grands Lacs) in 1976. Following the recommendations of the LPA, the Preferential Trade Area (PTA) was formed in 1981 and was eventually replaced by COMESA in 1994.

The regional arrangements in the ESA region can be divided into two categories: those that fit into the LPA adopted in 1980, and those that were either in existence or came about outside the LPA (Table 6.1). The existence of regional blocs before and outside the LPA indicates the importance placed upon them for political and socioeconomic reasons. The PTA and the Cross-Border Initiative (CBI) are the blocs that fit into the LPA. The regional integration arrangements that grew outside the LPA include:

- SACU;
- The Southern African Development Coordination Community (SADCC), which was replaced by the Southern African Development Community (SADC) in 1992;
- EAC;

- The Intergovernmental Authority on Drought and Development (IGADD), which was superseded by the Intergovernmental Authority on Development (IGAD) in 1996;
- CEPGL; and
- The Indian Ocean Commission (IOC).

The other state-of-the-art regional trade arrangement is the COMESA-SADC-EAC Free Trade Framework, which was announced in 2008.

Table 6.1 Regional trade arrangements in eastern and southern Africa regions

	1960s and 1970s	1980s	1990s and 2000s
Lagos Plan of Action (LPA)		Preferential Trade Area (PTA) 1981	Common Markets for Eastern and Southern Africa (COMESA) 1994
			Cross Border Initiative (CBI) 1993
Outside LPA	Southern African Customs Union (SACU) 1969 (originally 1889) Common Monetary Area		
		Southern African Development Coordination Conference (SADCC) 1980	Southern African Development Community (SADC) 1992
		Indian Ocean Commission (IOC) 1984	
	East African Community 1 (EAC I) 1967		East African Community II (EAC II) 1999
		Intergovernmental Authority on Drought and Development (IGADD) 1986	Intergovernmental Authority on Drought and Development (IGAD) 1996
			COMESA-SADC-EAC Free Trade Area (Africa Free Trade Zone) 2008

Source: Compiled by authors.

Experiences of Regional Trade Arrangements in the Eastern and Southern Africa Region from 1994 to 2018

Within the ambit of the PTA for the ESA region were the EAC[2] of 1967, the SACU of 1969 with its associated monetary union (the Common Monetary Area, CMA), the CEPGL of 1976, and the SADCC[3] of 1980. These RECs were already in existence when the LPA was launched in 1980.

2 - Consisting of the East African High Commission (1948–1961), the East African Common Services Organization (1961–1967), and the East African Community (1967–1977).

3 - The SADCC was set up as a relatively informal organization by "frontline states", and its aim was to reduce dependence on South Africa.

Some members of the PTA later joined the IOC in 1984 or the Intergovernmental Authority on Drought and Development (IGADD) in 1986. This section addresses the experiences of the regional trade arrangements within the geographical area of the PTA for the period 1960–1993, summarizing the trade arrangements each member state concluded. A summary of all the regional trade arrangements in the ESA region and their achievements and status by 1993 is given in Table 6.2.

Table 6.2 Regional trade arrangements in eastern and southern Africa, 1960s–1993

Regional bloc[2] year formed	Countries involved	Main objective/aim	Achievements/ status by 1993
EAC 1967–1977	Kenya Tanzania Uganda	Strengthen economic and political ties between the member states through a common market, a common customs tariff, and a range of public services to achieve balanced economic growth	Collapsed in 1977 owing to political disparities. Signed the East African Co-operation Treaty in November 1993 which lasted until 1999
SACU 1969 (originally 1889)	Botswana Eswatini Lesotho Namibia (1990) South Africa	Duty-free movement of goods with a common external tariff on goods entering any of the countries from outside SACU	Fully operational Customs Union, and a Common Monetary Area established in 1974. Admitted Namibia in 1990
CEPGL 1976–1994	Burundi, DRC Rwanda	Promote economic and social development among member states through free movement of persons and international trade	Collapsed in 1994 owing to conflicts within and between member states, leading to lack of trust among them
SADCC 1980	Angola Botswana Eswatini Lesotho Malawi Mozambique Namibia (1990) Tanzania Zambia Zimbabwe	Reduce member states' dependence on apartheid South Africa. Implementation of projects and programs with national and regional impact	Formed foundation for a regional integration community. Admitted Namibia in 1990. Transformation to an effective and recognized community (SADC) in 1992
PTA 1981	Angola Burundi Comoros Djibouti Eritrea Eswatini Ethiopia Kenya Lesotho Madagascar Malawi Mauritius Namibia Somalia Seychelles Zambia Uganda Mozambique Sudan Tanzania Zimbabwe	Promote cooperation and integration covering all areas of economic activities, particularly trade and customs, industrialization, transport and communications, agriculture, and monetary affairs	Reduction in tariffs by 60%. Rehabilitate and upgrade interstate infrastructure. Single road customs transit declaration document. Yellow Card and travelers' checks to facilitate movement of vehicles and persons. Superseded by COMESA in 1993
IOC 1984	Comoros Mauritius Madagascar Seychelles	Promote sustainable development through cooperation on diplomacy, environment, and trade	No significant progress had been made by 1993; limited capacity, connectivity and lack of regional infrastructure to implement regional initiatives

IGADD 1986	Djibouti Eritrea (1993) Ethiopia Kenya Somalia Sudan Uganda	Provide coordinated efforts in managing drought and development across East Africa subregion with a focus on food security	No significant progress had been made by 1993 owing to conflict and lack of commitment by member states

Source: Compiled by authors.
Notes: EAC = East African Community, ESA = Eastern and Southern Africa, COMESA = Common Market for Eastern and Southern Africa, CEPGL = Communauté Economique des Pays des Grands Lacs, SACU = Southern African Customs Union, SADCC = Southern African Development Coordination Conference, PTA = Preferential Trade Area, IOC = Indian Ocean Commission, IGADD = Intergovernmental Development on Drought and Development, DRC = Democratic Republic of the Congo.

The Multinational Programming and Operational Centres (MULPOC) for ESA, based in Lusaka, Zambia, successfully negotiated a treaty for the establishment of the PTA for the region. The treaty establishing the ESA PTA was signed by 16 countries[4] in Lusaka in 1981.

The objectives of the PTA were to: (1) promote cooperation and development in all fields of economic activity, in particular trade, customs, industry, transport, communications, agriculture, natural resources, and monetary affairs; (2) raise the standards of living of the people of the region by fostering close relations among members; (3) create a common market by the year 2000 to allow the free movement of goods, capital, and labor within the subregion; and (4) contribute to the progress and development of all other countries in Africa.

To achieve these objectives, the PTA strategy included: (1) reducing and eliminating trade barriers; (2) simplifying and harmonizing customs and trade documents procedures and regulations; (3) introducing rules of origin to determine which goods should receive preferential treatment; (4) granting transit rights to all transporters; (5) introducing clearing and payments arrangements to promote trade; (6) developing coordinated and complementary policies; and (7) promoting industrialization and agricultural development.

Achievements of the PTA in terms of trade liberalization and promotion, transport and communications, and monetary and financial cooperation include:

- A 60 percent average tariff reduction on goods originating in the subregion;
- Elimination of the Common List which stated the products in each member state that could be traded at reduced tariff rates, resulting in preferential exchange of all commodities originating within the subregion;
- Streamlining of the Protocol on the Rules of Origin to facilitate intraregional trade and investment; deletion of the majority local equity and management clause. Value-added criteria have been applied with a commodity originating in the subregion if its value added is at least 45 percent;
- Establishment of a computer-based subregional trade information network, with focal points in each member state providing information on enterprises in each country, and the country's exports, imports, and tenders;
- Rehabilitation and upgrading of interstate roads, railways, ports, and telecommunications links;
- Facilitation of movement of vehicles within the subregion through the implementation of the PTA third-party motor vehicle insurance scheme (Yellow Card) in 1987;
- Simplification and harmonization of road customs transit documents through the introduction of a single road customs transit declaration document;

4 - Burundi, Comoros, Djibouti, Eswatini, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Somalia, Eswatini, Tanzania, Uganda, Zambia, and Zimbabwe.

• Establishment of a clearing house in 1984;

• Establishment of the PTA Trade and Development Bank for ESA (PTA Bank) in November 1985;

• Formation of the PTA Association of Commercial Banks (BAPTA) in November 1987 to facilitate operations of the clearing house by establishing relationships between banks;

• Introduction of PTA travelers' checks, UAPTA, in August 1988 to enable citizens within the subregion to travel without having to use foreign currency;

• Launch of the PTA Monetary and Financial Harmonisation Programme in November 1990, paving the way for monetary union establishment to facilitate the regional integration process;

• Establishment of the PTA Reinsurance Company (Zep-Re) in September 1992 to control outflow of foreign exchange in the form of payments overseas. Zep-Re demanded that companies cede 10 percent of their business to it; and

• Adoption of the PTA Trade and Development Strategy in 1992 to enable member states to address problems and so enhance market integration and economic transformation for sustainable growth.

Some challenges remained: (1) high transport costs and border tolls; (2) lack of complementarity in production, trade, and consumption in the PTA, retarding trade and economic integration; (3) disparities in the economic activities and (4) development of the members, militating against the regional integration process; and more advanced economies tending to maximize their exports at the expense of weaker nations.

Experiences of Regional Trade Arrangements in the Eastern and Southern Africa Region from 1994 to 2018

The period from 1994 to 2018 witnessed significant creation and resurgence of interest in regional economic integration in the ESA region. COMESA was created in 1994 to replace the PTA while IGAD replaced IGADD in 1996. SADC replaced SADCC in 1992 and the CBI was created in 1993–1994. The EAC and the CEPGL, which had collapsed, were regenerated in 1999 and 2007, respectively. The EAC was re-established after a treaty was signed in November 1999 and entered into force in July 2000. The CEPGL was regenerated after more than 13 years of inactivity, under pressure from the international community: the Council of Ministers of CEPGL held in Bujumbura in 2007 decided to relaunch the activities of the economic community.

This section documents the experiences of the regional trade arrangements involving COMESA member states in 1994–2018. The experiences of each regional trade arrangement are detailed in Table 6.3.

The strategy for the 1990s was based on past experiences and member states' determination to cooperate in bringing about sustainable growth and development. It aimed to bring about full market integration, beginning with the transformation of the PTA to COMESA in 1994. COMESA is the largest trading bloc in Africa and has 21 member states, from Tunisia to Eswatini. COMESA is based on the concept of multi-speed development by which two or more member states can agree to accelerate the implementation of specific provisions of the Treaty while allowing others to join in later on a reciprocal basis. Whereas the PTA emphasized decision

by consensus (and so programs were pegged to the slowest-moving member states), under COMESA a two-thirds majority will prevail where consensus cannot be reached.

COMESA maintained the structures of the PTA, although the Tribunal was replaced by the Court of Justice. COMESA embodies the following principal elements which are not contained in the PTA:

- A full free trade area (FTA) involving trade liberalization under which there is free movement of goods and services produced within the common market and removal of all non-tariff barriers.

- A customs union involving zero tariffs on all products originating in the common market, and the adoption of a common external tariff on imports from non-COMESA countries.

- Free movement of capital and finance and a common investment procedure to create a more favorable environment for foreign direct investment, cross-border investment, and domestic investment.

- A payments union and eventual establishment of a COMESA monetary union.

- Free movement of persons and common visa arrangements, including the right of establishment and (eventually) the right of settlement.

COMESA is designed specifically to support the business community in taking maximum advantages of regional integration. Governments of member states seek to create an environment for business to invest and produce more efficiently. The bloc has achieved the following since its inception in 1994:

- Increasing the number of member states from 19 to 21, when Somalia and Tunisia joined the COMESA regional bloc.

- Establishment of the institutions that support regional integration across member states, such as the COMESA Court of Justice; Federation of National Associations of Women in Business in Eastern and Southern Africa (FEMCOM); COMESA Business Council; and Regional Investment Agency, in addition to those adopted from the PTA.

- Nine member states formed a FTA in 2000 (Djibouti, Egypt, Kenya, Madagascar, Malawi, Mauritius, Sudan, Zambia, and Zimbabwe). Rwanda and Burundi joined in 2004, the Comoros and Libya in 2006, Seychelles in 2009, and Tunisia and Somalia in 2018.

- In 2008, COMESA agreed to an expanded free trade zone including members of the other African trade blocs, the EAC, and the SADC to form an African free trade zone.

- In 2009, COMESA launched the customs union which was in the process of being implemented.

- Launch of new trade facilitation instruments that are creating a borderless economy, resulting in drastic reductions in the cost of doing business: COMESA Virtual Trade Facilitation System (CVTFS) and the online trading system known as the COMESA Electronic Market Exchange System (CEMES).

- The Yellow Card scheme, providing regional third-party motor insurance cover, which is a success story for COMESA market integration. More than 200 insurance companies are involved and over 200,000 interstate motorists use the Yellow Card. For instance, between over 500 motor vehicles crossed the border between Ethiopia and Djibouti using Yellow

Cards and over US$3 million in compensation has been paid to road accident victims in Djibouti for the period 2012–2017 (COMESA 2014).

• Launch of a digital FTA, the first of its kind in Africa.

Although COMESA has amassed a number of achievements, the following challenges seem to be working against regional integration efforts:

• Overlapping membership of various countries is limiting full attention and commitment to COMESA aims. This has also led to some former member states (such as Tanzania) pulling out of COMESA for failing to cut ties with other blocs.

• Free movement of people between member states remains a challenge, if not impossible, as member states are too slow to ratify protocols already in place that should allow the free movement of people. Only four member states have signed the protocol of free movement of people (Burundi, Rwanda, Kenya, and Zimbabwe). This is due to the issue of reciprocity, where one country relaxes its visa rules but their nationals do not enjoy similar treatment in the corresponding member states.

• The level of investments in infrastructure and energy to enhance social and economic integration through interconnectivity has been low.

Table 6.3 Experiences of regional trade arrangements in the the eastern and southern Africa region from 1994 to 2018

Regional bloc year formed	Countries involved	Main objective/ terms	Achievements by 2018
SACU 1969	Botswana Eswatini Lesotho Namibia South Africa	Duty-free movement of goods with a common external tariff on goods entering any of the countries from outside SACU	Established free trade area, customs union and monetary union. Harmonization of national and regional policies, e.g., common industrial policy in 2002
IOC 1984	Comoros Mauritius Madagascar Seychelles	Promote sustainable development through cooperation on diplomacy, environment, and trade	Preferential trade regime between Mauritius and Madagascar. Regional Integration Support Programme including EAC, IGAD, and COMESA
SADC 1992	Angola Botswana Comoros Eswatini Lesotho Madagascar Malawi Mauritius Mozambique Namibia Seychelles South Africa Tanzania Zambia Zimbabwe	Achieve regional integration and eradicate poverty within the southern African region	Launched a free trade area in 2008. Joined the Africa free trade zone in 2008. Adopted the Protocol on Gender and Development. Increased membership from 15 to 16 (admitted Comoros in 2017)

CBI 1993	Burundi Comoros Eswatini Kenya Madagascar Malawi Mauritius Namibia Rwanda Seychelles Tanzania Uganda Zambia Zimbabwe	Facilitate cross-border activity by eliminating barriers to cross-border flows of goods, services, labor, and capital	Harmonization of road transit charges. Launch of Road Customs and Transit Document and a single goods customs declaration form
IGAD 1996	Djibouti Eritrea (1993) Ethiopia Kenya Somalia Sudan Uganda	Promote peace, prosperity, and integration by assisting and complementing the efforts of member states to achieve regional integration through increased cooperation	Significant progress toward establishing free trade area. Initiatives to improve the investment, trade, and banking environments of member states
EAC 1999	Burundi (2007) Kenya Rwanda (2007) Tanzania Uganda South Sudan (2016)	Strengthen the economic and political ties between member states through common market, common customs tariff, and range of public services to achieve balanced economic growth	Free trade area, customs union, and common market. Established a 3-year revolving presidency in 2011, and elected a president for federation by 2013. Acceded to Africa's free trade zone
COMESA 1994	Burundi Comoros DRC Djibouti Egypt Eritrea Eswatini Ethiopia Kenya Lesotho Libya Madagascar Malawi Mauritius Seychelles Somalia Sudan Tunisia Uganda Zambia Zimbabwe	Promote joint development in all fields of economic activity and adoption of macroeconomic policies and programs to raise living standards of its people	Free trade area in 2000. Proposed a customs union. Agreed to the SADC-EAC-COMESA Free Trade Zone in 2008. Launch of customs union in 2009. Launched digital free trade area. Increased membership to 22 by admitting Tunisia and Somalia
CEPGL 2007	Burundi DRC Rwanda	Promote peace and economic and social development among member states through free movement of persons and international trade	Sustainable peace in the Great Lakes countries. Facilitation of movement of people and goods within the region

Source: Compiled by authors.
Notes: EAC = East African Community, ESA, Eastern and Southern Africa, CEPGL = Community of the Great Lakes Countries, SACU = Southern African Customs Union, SADC = Southern African Development Community, COMESA = Common Market for Eastern and Southern Africa, CBICB = Cross-Border Initiative, IOC = Indian Ocean Commission, IGADD = Intergovernmental Authority on Development, DRC = Democratic Republic of the Congo.

The overall progress of the RECs in ESA is summarized in Table 6.4.

Table 6.4 Summary of overall progress of regional economic communities in the eastern and southern Africa region

Activity	COMESA	SADC	EAC	IGAD	SACU
Free Trade Area	Progressing	Progressing	Fully in force	Proposed	Fully in force
Customs Union	Launched in 2009	Proposed for 2010	Fully in force	Stalled	Fully in force
Common Market	-	Proposed for 2015	Proposed for 2015	-	-
Currency Union	Proposed for 2018	Proposed for 2016	Proposed for 2024	-	Four countries participate
Visa free	-	-	Proposed for 2018	-	-
Political Pact	-	-	Proposed for 2023	-	-

Source: Compiled by authors.

Note: EAC = East African Community, SACU = Southern African Customs Union, SADC = Southern African Development Community, COMESA = Common Market for Eastern and Southern Africa, IGAD=Intergovernmental Authority on Development.

The analysis suggests that EAC and SACU have made significant strides in promoting regional integration compared to other RECs. COMESA and SADC are yet to achieve a full FTA status. In COMESA, 16 of 21 member states are already participating in the established FTA, while in SADC only Angola and the Democratic Republic of Congo (DRC) are not participating in the FTA. IGAD has proposed implementing the FTA, but no significant progress has been made so far.

Membership of regional economic communities

Changes in the membership of regional economic communities

A number of trade arrangements in the ESA region are expanding their membership (Table 6.5).

Table 6.5 Summary of the changes in selected regional blocs in the eastern and southern Africa region

COMESA	SADC	EAC	IGAD
Founding states 1994	Founding states 1980	Founding states 2001	Founding states 1986
Burundi, Comoros, DRC, Djibouti, Eritrea, Eswatini, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Rwanda, Sudan, Zambia, Zimbabwe **Joined later** Egypt 1999, Seychelles 2001, Libya 2006, Tunisia 2018, Somalia 2018 **Former states** Lesotho 1994–1997, Mozambique 1994–1997, Tanzania 1994–2000, Namibia 1994–2004, Angola 1994–2007	Angola, Botswana, Eswatini Lesotho, Malawi, Mozambique, Tanzania, Zambia, Zimbabwe **Joined later** Namibia 1991, South Africa 1994, Mauritius 1995, DRC 1997, Seychelles 1997 (withdrawn 2004–2007 and re-joined 2008), Madagascar 2005, Comoros 2017	Kenya, Tanzania, Uganda **Joined later** Burundi 2007, Rwanda 2007, South Sudan 2016	Djibouti, Ethiopia, Kenya, Somalia, Sudan, Uganda **Joined later** Eritrea 1993, South Sudan 2011

Source: Compiled by authors.
Note: EAC = East African Community, SADC = Southern African Development Community, COMESA = Common Market for Eastern and Southern Africa, IGAD=Intergovernmental Authority on Development, DRC = Democratic Republic of the Congo.

COMESA is the only REC that has experienced the departure of five former member states (Angola, Lesotho, Mozambique, Namibia, and Tanzania), while five new member states have also joined the bloc (Egypt, Libya, Seychelles, Somalia, and Tunisia). Tanzania withdrew because of revenue implications, and Namibia cited unfair trade competition and financial constraints as the major causes for withdrawal from COMESA. Somalia was a former member of the PTA (a precursor of COMESA) which wanted to regain its status in the bloc. SADC, EAC, and IGAD have experienced a growth in membership as they witnessed admission of other members into the blocs. SACU, IOC, CEPGL, and CBI have not experienced membership expansion.

Overlapping membership in the eastern and southern Africa region

ESA registered the highest number of RECs in Africa, all characterized by multiple and overlapping membership. Table 6.6 shows that every country in the region, except for Mozambique, belongs to more than one REC.

Table 6.6 Membership of each regional economic community in the eastern and southern Africa region

Countries	COMESA	SADC	SACU	EAC	IGAD	CEPGL	IOC	CBI
Angola		×						
Botswana		× (FTA)	×					
Burundi	× (FTA)			×		×		×
Comoros	× (FTA)	× (FTA)					×	×
DRC	×	×				×		
Djibouti	× (FTA)				×			
Eritrea	×				×			
Eswatini	×	× (FTA)	× (CMA)					×
Ethiopia	×				×			
Kenya	× (FTA)			×				×
Lesotho		× (FTA)	× (CMA)					
Madagascar	× (FTA)	× (FTA)					×	×
Malawi	× (FTA)	× (FTA)						×
Mauritius	× (FTA)	× (FTA)					×	×
Mozambique		× (FTA)						
Namibia		× (FTA)	× (CMA)					×
Rwanda	× (FTA)			×		×		×
Seychelles	× (FTA)	× (FTA)					×	×
Somalia	× (FTA)				×			
South Africa		× (FTA)	× (CMA)					
Sudan	× (FTA)				×			
South Sudan				×	×			
Tanzania		× (FTA)		×				×
Uganda	×			×	×			×
Zambia	× (FTA)	× (FTA)						×
Zimbabwe	× (FTA)	× (FTA)						×
Non-ESA countries that joined the RECs in the ESA region								
Egypt	× (FTA)							
Libya	× (FTA)							
Tunisia	× (FTA)							
Total members	21	16	5	6	7	3	4	14

Source: Compiled by authors.
Notes: EAC = East African Community, CEPGL = Communauté Economique des Pays des Grands Lacs, SACU = Southern African Customs Union, SADC = Southern African Development Community, IOC = Indian Ocean Commission, IGAD=Intergovernmental Authority on Development, CMA = Common Monetary Area, COMESA = Common Markets for Eastern and Southern Africa, ESA = Eastern and Southern Africa, CBI = Cross Border Initiative. FTA = Free Trade Area, DRC = Democratic Republic of the Congo.

The multiple membership had resulted in divided attention among members, which slowed regional convergence processes in the blocs.

After presenting the history of RTAs in ESA, we now evaluate the level of trade integration in the region.

Measurement of Trade Integration Based on Trade Costs

Tariffs, non-tariff measures, and transportation costs can directly impede the regional integration process. Examination of these costs gives a clear picture as to whether the conditions necessary for regional integration are satisfied in the ESA region. These indicators give a first proxy of regional integration, but they do not measure the actual realization of regional integration. This section gives an analysis of trade cost indicators in the COMESA region.

Tariffs

Chapter 3 has shown that in 2015, COMESA implemented low tariffs on intraregional trade: 1.9 percent, on average, which is lower than in SADC (3.8 percent) and in the Economic Community of West African States (ECOWAS) (5.6 percent in 2015, 0 percent now), but greater than in the Economic Community of Central African States (ECCAS) (1.6 percent) and in EAC (0 percent). However, in COMESA the average import duty on all imports remained relatively high at 6.9 percent, even if ECCAS and ECOWAS charged higher average import duties on all imports. This implies that average import duty on extraregional imports was high.

Bouët, Laborde, and Cosnard (2017) calculate the average duties applied on imports and faced by exports for COMESA member states. Analysis shows that Libya and Mauritius are relatively open in all sectors compared to other members. Protection is high in countries such as Djibouti (21.7 percent), Tunisia (16.5 percent), Sudan (15.6 percent), and DRC (15.4 percent). High restrictions in Djibouti are quite interesting and somewhat counterintuitive given the country's historical role as a trading post, as well as limited production in many sectors of its economy. With respect to the agricultural sector, Egypt, Tunisia, and Seychelles have high import duties at 46.7 percent, 45.3 percent, and 36 percent, respectively.[5]

When evaluating the average duties faced by exports from the COMESA region, it can be concluded that merchandise exports from Libya, Eritrea, DRC, and Zambia face the lowest duties globally. Exports from Libya face 0 percent globally because they consist primarily of crude oil and petroleum, while exports from Kenya and Malawi (which are mostly agricultural products) face relatively high duties: 11.7 percent and 12.6 percent, respectively. Agricultural exports from Egypt, Tunisia, and Malawi face higher duties globally compared to other member states.

5 - These average import duties are for 2007.

Non-tariff Measures

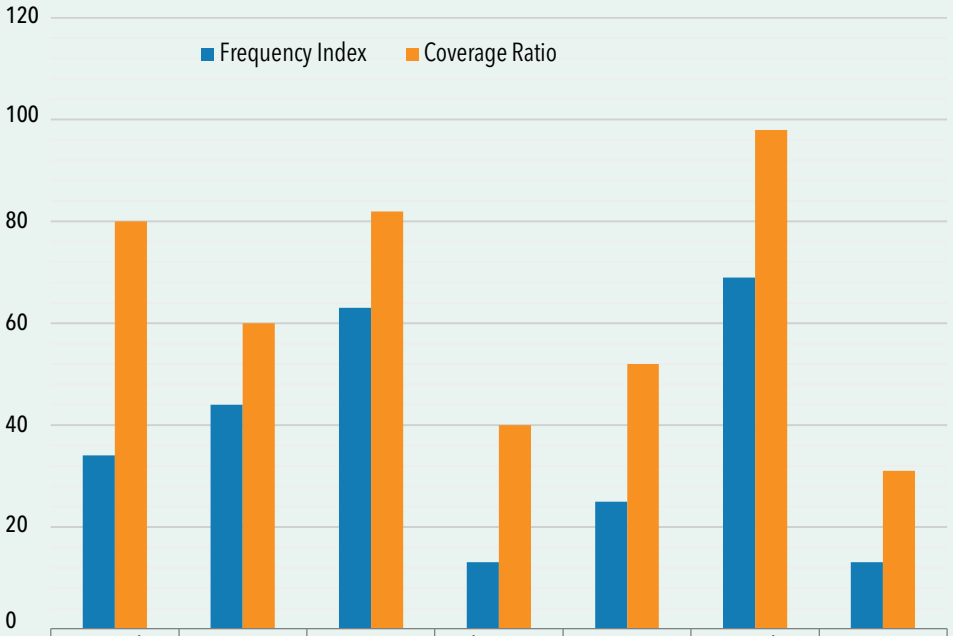
With regional economic integration, conventional tariffs decrease, giving rise to non-tariff measures (NTMs). Although these NTMs are applied for protectionist purposes, governments may apply them for public policy reasons as well, such as for the protection of human and plant health. Examples of NTMs are sanitary and phytosanitary measures (SPS), technical barriers to trade (TBT), export measures, price and quantity control measures, trade remedies, and measures related to intellectual property rights and rules of origin.

Kee, Nicita, and Olarreaga (2009) and Bouët, Laborde, and Cosnard (2017) show that NTMs are present in the COMESA region. This supports the hypothesis that NTMs can be used by governments to protect human health by imposing food safety regulations. Egypt, Sudan, and Tunisia have higher averages of NTMs on all merchandise as well as on agricultural products. Uganda has the lowest NTMs, at 0.1 percent, followed by Rwanda (0.75 percent).

The Centre d'Etudes Prospectives et d'Informations Internationales (CEPII)'s NTM-Map database measures the incidence of NTMs based on the United Nations Conference on Trade and Development (UNCTAD) database (Gourdon 2014). The database covers frequency index values and coverage ratios for 63 nations over the period 2010–2012. The frequency index simply captures the percentage of products that are subject to one or more NTMs. The coverage ratio captures the percentage of imports that are subject to one or more NTMs.

Figure 6.1 shows the frequency index values and coverage ratios of NTMs for each country. Analysis shows that Burundi, Egypt, Kenya, and Uganda have higher shares of products and imports that are subject to NTMs compared to other regional counterparts.

Figure 6.1 Frequency index values and coverage ratios by country (percentage)



	Burundi	Egyyt	Kenya	Madagascar	Mauritius	Uganda	Tunisia
Frequency Index	34	44	63	13	25	69	13
Coverage Ratio	80	60	82	40	52	98	31

Source: Gourdon (2014).

There is a large literature pointing out the considerable time and cost associated with exports and imports in Africa. These include cost and time spent on documentary compliance, border compliance, and domestic transport. According to the World Bank "Doing Business" indicators, Eswatini and Mauritius are the most efficient countries in the region, and DRC is the least efficient. In DRC, in 2018, it took 336 hours and US$3,039 in border compliance costs to import a container, whereas it took only 3 hours and cost US$134 in Eswatini. Further analysis of Doing Business indicators shows that there is high heterogeneity in the region in terms of efficiency. Border and documentary compliance time when exporting or importing ranges from 2 hours to 336 hours. Costs, range from US$60 to US$3,039. Efficiency issues need to be addressed for member states to improve trade volumes (World Bank, 2019).

Border infrastructure rarely caters for the needs of small-scale traders, often forcing them to share the clearance area with trucks and other vehicles, which increases insecurity and slows down procedures. According to Brenton and Soprano (2018), the vast majority of Africa's small-scale traders are female: up to 70 percent–80 percent in some cases. Women traders are often among vulnerable groups across the continent, as they suffer sexual harassment, verbal abuse, and confiscation of their possessions. Research conducted in the ESA region also shows that there is a high prevalence of small-scale traders, especially women. The high levels of sexual harassment faced by small-scale traders has been documented by the Eastern African Subregional Support Initiative for the Advancement of Women (2012); Chiliya, Masocha, and Zindiye (2012); and FAO (2017). The analysis indicates that, in particular, these traders face sexual harassment, stigmatization, extortion, and bribery by customs officials. These are critical challenges that significantly reduce trade volumes in the region.

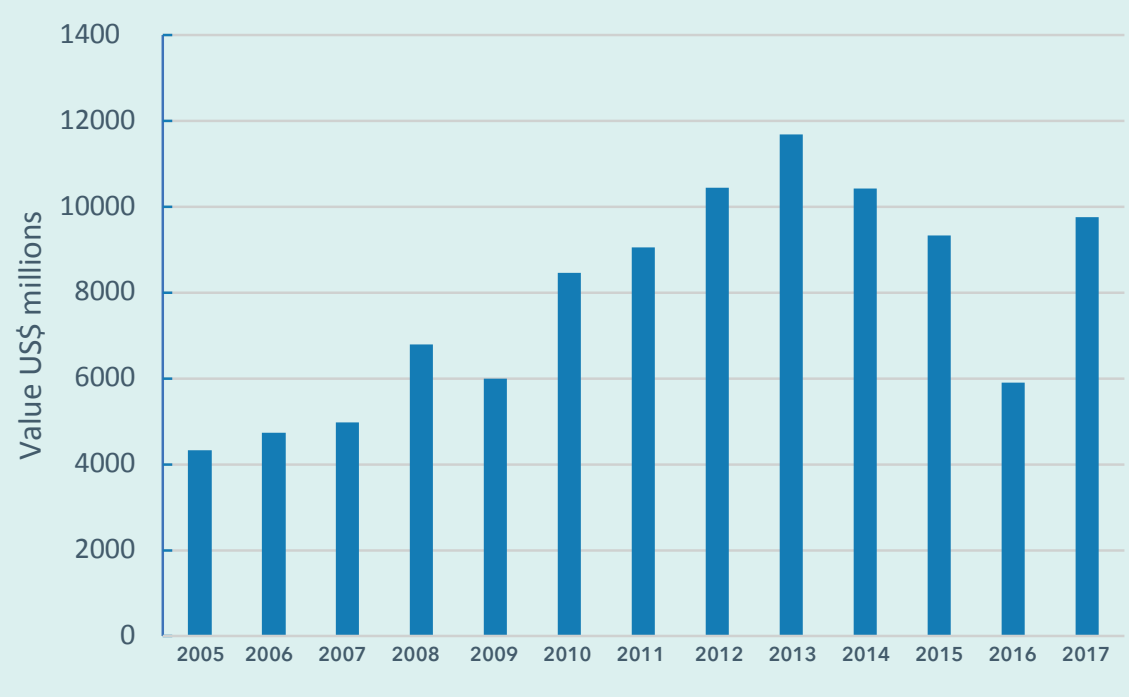
Measurement of Trade Integration Based on Trade Flows

This section discusses intraregional trade flows as measures of regional integration. More superior or refined indicators that are used for international comparisons are also used to measure the regional integration of COMESA.

Intra-Common Market for Eastern and Southern Africa Trade Shares

The simplest regional integration indicator, and the one most often used, is the share of intraregional trade in a region's total trade. Figure 6.2 shows that intra-COMESA trade has been fluctuating in the period 2005–2017.

Figure 6.2 Total intra-common market exports for eastern and southern Africa (2005–2017)



Source: Authors' calculations from COMTRADE (2019).

Total intra-COMESA trade as a percentage of total COMESA trade rose from 9 percent in 2008 to 14 percent in 2011 and 18 percent in 2015 (Table 6.7). The regular increase in trade share may be explained by the launch of a customs union in 2009. Table 6.7 also shows that this regional aggregate share looks low as compared to the intra-COMESA trade shares in Rwanda, Burundi, Uganda and Zambia.

Table 6.7 Intra-common market trade for eastern and southern Africa as a share of total trade by country (2008–2015)

	2008	2009	2010	2011	2012	2013	2014	2015
Burundi	26%	26%	26%	15%	14%	17%	17%	23%
Comoros	3%	5%	7%	3%	4%	11%	4%	3%
DRC	16%	20%	21%	19%	19%	25%	18%	16%
Djibouti	6%	10%	7%	7%	5%	6%	5%	6%
Egypt	3%	3%	4%	3%	3%	3%	3%	3%
Eritrea	8%	22%	32%	10%	6%	9%	5%	8%
Eswatini	15%	18%	5%	4%	3%	4%	3%	5%
Ethiopia	5%	4%	5%	5%	4%	3%	3%	2%
Kenya	13%	11%	12%	12%	10%	13%	10%	10%
Libya	1%	1%	2%	3%	2%	2%	3%	3%
Madagascar	3%	5%	6%	5%	4%	4%	5%	5%
Mauritius	5%	7%	7%	8%	5%	5%	6%	12%
Malawi	8%	8%	12%	15%	10%	8%	9%	10%
Rwanda	38%	29%	27%	28%	31%	25%	30%	30%
Seychelles	7%	5%	5%	4%	4%	7%	6%	9%
Sudan	4%	6%	6%	5%	7%	8%	6%	6%
Uganda	19%	20%	21%	21%	21%	21%	20%	21%
Zambia	20%	19%	22%	22%	19%	23%	21%	21%
Zimbabwe	7%	7%	7%	6%	6%	7%	5%	6%
COMESA	9%	11%	12%	14%	12%	15%	16%	18%

Source: Authors' calculations from COMTRADE (2019).

Note: Somalia and Tunisia not included since they joined COMESA in 2018; COMESA = Common Market for Eastern and Southern Africa. DRC = Democratic Republic of the Congo.

The share of intra-COMESA trade in total country trade differs from country to country, with Rwanda having the highest share at 30 percent in 2015, followed by Burundi (23 percent), and by Uganda and Zambia at 21 percent. For the period 2008–2015, Rwanda, Burundi, DR Congo, and Zambia had a relatively high share of trade with other COMESA member states. In contrast, intra-COMESA trade has been below 5 percent for Egypt, Ethiopia, and Libya as the bulk of the trade of these countries is with trading partners outside the COMESA region.

Regional Trade Introversion Index

This index is based on modifications of both intra- and extraregional trade intensity indices, and compares a region's share in trade with the rest of the world (see Chapter 3 for a detailed presentation). It is the ratio of the difference between intra- and extraregional intensity indexes to their summation. A positive figure shows that the region is more introverted than extraverted. Moreover, when the value of the indicator increases, it means that trade introversion increases. Comparison between regions is possible.

In Chapter 3 of this report, Figure 3.8 illustrates the regional trade introversion indices for selected African regional communities for the period 2005–2017. The analysis shows that these indicators are very close for all African RECs, and that all these RECs are more introverted than extroverted. The introversion of the Arab Maghreb Union (AMU) is the least among the regional blocs.

Bouët, Cosnard, and Laborde (2017) estimate regional introversion indices of COMESA and the introversion of member states toward the region for the period 2000–2013. Burundi, DRC, Kenya, Rwanda, Uganda, and Zambia are more introverted toward the region. Libya appears to be the least introverted member state compared to the others. It can also be concluded that the introversion for countries such as Egypt and Eritrea has been increasing, while that of the Comoros and Ethiopia was decreasing for the period 2000–2013.

The importance of informal cross-border trade

ICBT describes trade transactions that, for one reason or another, are never captured by official customs agencies nor in a country's official trade data. Traders engaged in ICBT often use unofficial routes and avoid customs controls. The term also includes transactions that pass through official routes but are intentionally under-reported or misreported (Ackello-Ogutu 1996; Macamo 1998; Minde and Nakhumwa 1998). In some cases, ICBT is referred to as parallel trade or smuggling. In government circles, for example, ICBT is more often associated with smuggling, tax evasion (Lesser and Moisé-Leeman 2009), and illegality than with innovation, enterprise, and job creation. Formal trade describes those international transactions that are well recorded and that can be traced through national data systems at border points or elsewhere.

There seems to be a growing body of case study evidence confirming that ICBT plays a critical role in poverty alleviation, food security, and household livelihoods in southern Africa (Crush 2015). For example, in the SADC region, ICBT makes up an estimated 30 percent–40 percent of total intra-SADC trade, with an estimated value of US$17.6 billion (FAO 2017).

Cross-Border trade surveys indicate that, in some African countries, informal regional trade flows represent up to 90 percent of official flows (Lesser and Moisé-Leeman 2009), although in some cases the proportion may be much lower than this. Surveys by the Uganda Bureau of Statistics and the Bank of Uganda have established that ICBT is an important part of Uganda's regional trade, and accounts for between 25 percent and 40 percent of formal intraregional trade flows (UBOS and Bank of Uganda 2005; UBOS and Bank of Uganda 2010; UBOS and Bank of Uganda 2016), which underscores its importance in Uganda and its neighbors. The prevalence of ICBT in ESA varies between countries, but it is common where there are restrictive trade regimes (FAO 2017). Generally, though, ICBT is significant in the EAC (Ogalo 2010), and it remains a significant feature of regional trade and international mobility in southern Africa (Crush 2015).

The nature of ICBT, nevertheless, makes its data availability challenging and there continues to be a paucity of information on its dimensions. The absence of sufficient data means that ICBT does not receive the level of attention it deserves, and monitoring efforts are scant.

An inherent challenge that undermines the availability of ICBT data is how to monitor ICBT across countries and over time. Formal trade data are readily available because custom authorities placed at various official borders have a duty and capacity to capture the transactions from one country to another in their normal course of business. ICBT, however, is difficult to capture because the traders avoid custom authorities for one reason or another. Ackello-Ogutu (1996) recommends three techniques for collecting primary ICBT data: (1) border observation or border monitoring; (2) tracking movement of large transport vehicles; and (3) stocktaking at open markets. These techniques are applied either alone, or in combination, depending on the circumstances.

In general, border observation requires selection of popular and accessible border sites for the posting of enumerators. The monitors may then carry out border monitoring by applying census techniques to cover major agricultural and industrial commodities during a randomly selected number of weeks from each month over a period of 12 months (Ackello-Ogutu 1996). The second step is to estimate average monthly trade volumes from observed figures and then use such estimates to approximate the annual volume and value of unrecorded trade flows between two trading partners (Ackello-Ogutu 1996).

Border observation alone may not give a realistic picture of unrecorded trade as it may miss under-declaration of the true values and volumes of the goods being transported across borders. The tracking technique can complement border observation. The former aims to estimate the volume of unrecorded trade that passes across the border through misrepresentation or manipulation of the documentation procedures (Ackello-Ogutu 1996). To achieve this, tracking may be conducted only on a small sample (for instance, 10 percent) of the trucks passing through selected borders, and subsequently cargo movements are traced from the port of entry to the declared destination with the intention to compare the findings with those in the official customs records (Ackello-Ogutu 1996). This provides an estimate for unrecorded trade.

Finally, the stocktaking technique is more suitable for open border markets commonly found along the frontier roads between countries. The technique requires quantification of net import and export figures based on the volume of goods brought to the market by traders from each of the neighboring countries. This is done each day over all the selected days (Ackello-Ogutu 1996). This approach is combined with border observation on non-market days when the level of trade activity declines appreciably (Ackello-Ogutu 1996). Details of initiatives to measure informal trade using these approaches are provided below.

Intergovernmental Initiatives

The Famine Early Warning Systems Network initiative

Although the drive to monitor and collect ICBT data is not widespread in the COMESA region, compared with the drive to collect formal trade data, several initiatives utilizing a different combination of the methods above nonetheless exist. In the southern Africa region there are efforts by the Famine Early Warning Systems Network (FEWSNET), the World Food Programme (WFP), and the Food and Agriculture Organization (FAO) to track prices of various agricultural commodities across borders in Malawi, Zambia, Mozambique, Zimbabwe, Tanzania, and other countries.

FEWSNET was set up in 2004 in southern Africa to better understand regional trade flows in food commodities and to apply this information and analysis to the planning of food aid, humanitarian responses, and strategic food import decisions. FEWSNET collects some informal trade data, but these are often incomplete (Gelan et al. 2010). The system consists of monitors

being placed at key border posts shared by Malawi, Mozambique, Zambia, Tanzania, DRC, Zimbabwe, and South Africa. The goal of the initiative is to observe and record prices and volumes of informal trade flows of the main food commodities. Once collected, the information feeds into national and regional food balance sheets. It is also used by agro-business planners, research institutions, and international trade monitors and humanitarian agencies for planning. A monthly report is produced at the regional level using the data collected and is widely disseminated.

FEWSNET collects such data using the observation technique described in Ackello-Ogutu (1996) with the objective of better understanding regional trade flows to help plan food aid and humanitarian responses, and hence the approach relies on monitors placed at various border points. The job of the monitors is to collect daily import and export volumes and prices of commodities where possible, and subsequently transmit the data weekly to the FEWSNET country focal point. The focal point person consolidates the data, makes a preliminary analysis, and then transmits it to the FEWSNET regional office. At the regional level, a FEWSNET/WFP team produces monthly or quarterly reports which are disseminated through a distribution list with copies posted on the FEWSNET and other websites. At the country level, the data feed into the food balance sheets of Ministries of Agriculture. At the regional level, the ICBT trends feed into FEWSNET Regional and Global Price Watch Bulletins (FEWSNET 2011). The country nodes of FEWSNET present ICBT reports to food and nutrition security monitoring and evaluation bodies bi-annually (FEWSNET 2012).

The Alliance for Commodity Trade in Eastern and Southern Africa informal cross-border food trade monitoring system

The Alliance for Commodity Trade in Eastern and Southern Africa (ACTESA) is a specialized agency of COMESA and was established in 2008. In 2010, ACTESA signed a Memorandum of Understanding (MoU) with COMESA to serve as an implementing institution for regional initiatives in strategically important agricultural value chains, trade, and investment. Since March 2011, ACTESA been collaborating with WFP and FEWSNET in cross-border trade monitoring through the Informal Cross Border Food Trade Monitoring System (ICB-FTMS) initiative.

Thus ACTESA works with FEWSNET country offices to enhance the tracking of ICBT (prices, quantities, and value) in the same areas that FEWSNET monitors. However, not all border crossing points or crops that are considered critical are currently monitored, owing to resource constraints. The map in Figure 6.3 illustrates where borders are currently monitored within the FEWSNET-ACTESA collaborative arrangement.

Figure 6.3 Borders monitored by the Famine Early Warning Systems Network

Source: FEWSNET 2015.

The FEWSNET program monitors many borders in Malawi, Zambia, Mozambique, and Tanzania. Table 6.8 presents the borders that are being monitored by FEWSNET in Malawi. Most of the borders are in the southern region; only two are being monitored in the center, and three are being monitored in the northern region. The agrarian structure in Malawi is such that the south is prone to famine as most of the land is less favorable to farming. The center, followed by the north, is the grain basket of Malawi. FEWSNET chose these borders based on the expectation of food shortages. The result, unfortunately, is that the amount of trade that takes place in the center is not fully captured.

Table 6.8 Borders monitored under the Famine Early Warning Systems Network program

Malawi border points	
North	**Center**
Mbirima–Chitipa/Tanzania	Mchinji–Mchinji/ Zambia
Songwe–Karonga/Tanzania	Dedza–Dedza/Mozambique
Mqocha–Mzimba/Zambia	
South	**South**
Mwanza–Mwanza/Mozambique	Sankhulani–Nsanje/Mozambique
Mkumaniza–Chikwawa/Mozambique	Makhanga–Nsanje/Mozambique
Marka–Nsanje/Mozambique	Muloza–Mulanje/Mozambique
Marine–Nsanje/Mozambique	Naminkhaka–Phalombe/Mozambique
Tengani–Nsanje/Mozambique	Kolowiko–Phalombe/Mozambique
Chiponde/Kalanje–Mangochi/Mozambique	Nayuchi–Machinga/Mozambique

Source: FEWSNET 2015.

The list of commodities monitored include: maize, maize flour, rice, beans, fresh cassava, dry cassava, sweet potatoes, millet, sorghum, pigeon peas, cow peas, groundnuts, sunflower, soy, wheat, wheat flour, green gram, European potatoes, cotton, maize seed, and fertilizers. Nevertheless, the key commodities that are fully reported are maize, rice, and beans. Maize constitutes the largest share of the total quantity.

Figure 6.4 presents maize quantities, both as reported formally and as tracked through ICBT monitoring. It shows the informal maize exports as well as the ratio of informal maize exports to formal maize exports by Malawi, Mozambique, Tanzania, Zambia, Zimbabwe, and South Africa into SADC/COMESA. This sample of countries and the period of coverage are determined by the availability of data.

Figure 6.4 Informal and formal maize exports by Malawi, Mozambique, Tanzania, Zambia, Zimbabwe, and South Africa into the Southern African Development Community/Common Market for Eastern and Southern Africa, 2004-2013

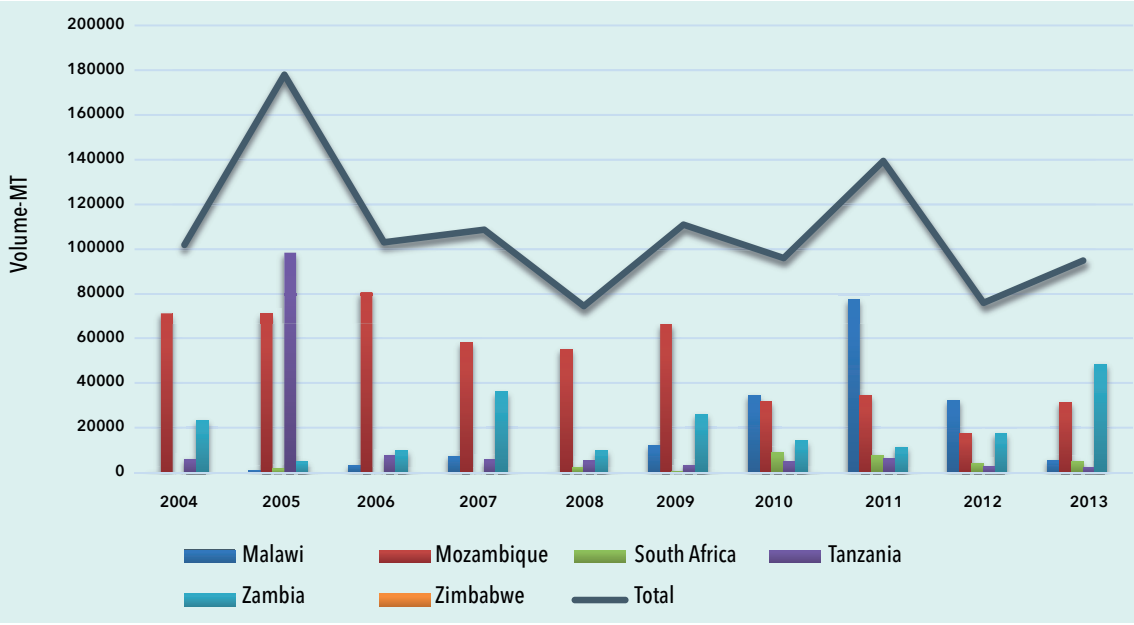
Source: Authors' computation based on FEWSNET (2019).

Note: ICBT for Informal Cross-Border Trade; SADC for Southern African Development Community; MT for Metric Tons

In general, informal agricultural trade data are scant and are available only from 2004. The general trend is that the volume of formal maize trade has been volatile over time (ranging from under 250,000 metric tons (MT) in 2009 to around 3 million MT in 2011). This may be explained by the erratic rainfall patterns over time, considering that there is a close relationship between cereal production and annual rainfall (see, for example, Nhamo et al. 2019).

Figure 6.4 also shows that informal cross-border maize trade expressed as a share of formal trade accounts for between 4 percent and 15 percent and has been on the decline over time. Figure6.5 gives the informal maize exports by origin country. The seemingly lower level may be ascribed to data collection challenges for ICBT for maize. The observed decline may point to the effect of regional integration (which encourages formal trade) in the southern Africa region, which would be in line with findings from FAO (2017).

Figure 6.5 Informal cross-border maize exports into the Southern African Development Community, 2004-2013



Source: Authors' computation based on FEWSNET (2019)

Note: MT= Metric Tons

The FEWSNET program is a good effort toward understanding ICBT and price dynamics in the southern Africa region. Even if the amount of trade captured under the program may not reflect the totality of ICBT, the trends computed from such data may still be informative and the price changes may be useful for decision making.

The program covers a limited number of borders in these countries, so the data collected may not reveal all ICBT. There are also other times that FEWSNET monitors cannot collect data: for example, at night, when trade also continues. Furthermore, it is not practical to examine all assorted items packed in the same bags, a consideration that compromises the quality of data. As the program is donor supported and has not yet been domesticated in national budgets, its sustainability may also be called into question.

The market analysis sub-group of the Food Security and Nutrition Working Group

The market analysis sub-group of the Food Security and Nutrition Working Group (FSNWG) monitors the ICBT of 88 food commodities and livestock in eastern Africa to quantify the impact on regional food security (FSNWG 2017). It monitors informal trade across selected borders of Tanzania, Burundi, Rwanda, Uganda, Kenya, Somalia, Djibouti, Ethiopia, Sudan, South Sudan, and DRC. Data are provided by the East Africa Grain Council (EAGC), FEWSNET, FAO, the National Bank of Rwanda (NBR), and WFP (FSNWG 2017). The group monitors a representative sample, but does not cover all borders or collect data every day of the year.

The Southern Africa Migration Program

In 2007–2008, the Southern Africa Migration Program (SAMP) planned and implemented a major regional survey of cross-border trade in southern Africa as part of a larger project on migration, development, and poverty reduction. A series of individual country reports was produced by the project. For the Growing Informal Cities Report, the individual country datasets were combined into a single regional dataset. This provides important insights into the nature of ICBT and the character of informal traders across the SADC region (Crush 2015).

The SAMP survey covered 20 land border posts connecting 11 southern African countries using a threefold methodology. (1) All people crossing through the selected border posts were monitored over a 10-day period, and the number of ICBT traders counted. (2) Monitors observed the interactions of traders with customs officials and recorded the types, values, and volumes of goods declared and duties paid. (3) Monitors interviewed a sample of traders using an "origin and destination" survey tool which sought to trace origins and destinations of commodities. During the course of the exercise, more than 205,000 people—including 85,000 traders—passed through the border posts being monitored. The monitors recorded transactions of over 5,500 traders with customs officials and interviewed over 4,500 traders (Crush 2015).

The study by Minde and Nakhumwa (1998) involved monitoring frontier markets, informal routes, and crossing points along the border regions in Kenya, Malawi, Mozambique, Tanzania, Zambia, and Zimbabwe. Monitoring was done for 2 weeks per month for a period of 12 months. Trade volumes and values were obtained by aggregating the weekly trade volumes and values. For comparability, all the country studies adopted the same methodology (Minde and Nakhumwa 1998). Shortcomings included that not all borders could be covered and not all days of the year could be covered owing to resources constraints.

National Initiatives

Under the leadership of the Uganda Bureau of Statistics (UBOS) and the Central Bank of Uganda, ICBT surveys collect trade data between Uganda and her neighbors (Kenya, DRC, Rwanda, Tanzania, and Sudan) that are not included in the official records of the Uganda Revenue Authority (URA) and other authorities. To collect these data, the UBOS and the Bank of Uganda (BOU) collaborate in monitoring efforts at the main border crossings of the country, using monitors.[6]

The approach to data collection at UBOS hinges on direct observation as described in Ackello-Ogutu (1996) and, where necessary, verification is done through inquiries made to traders, clearing agents, revenue officers, and security personnel, and through weighing to ascertain quantities for some selected items. The methods used are the most cost-effective way of gathering data at border posts where conditions are far from ideal.

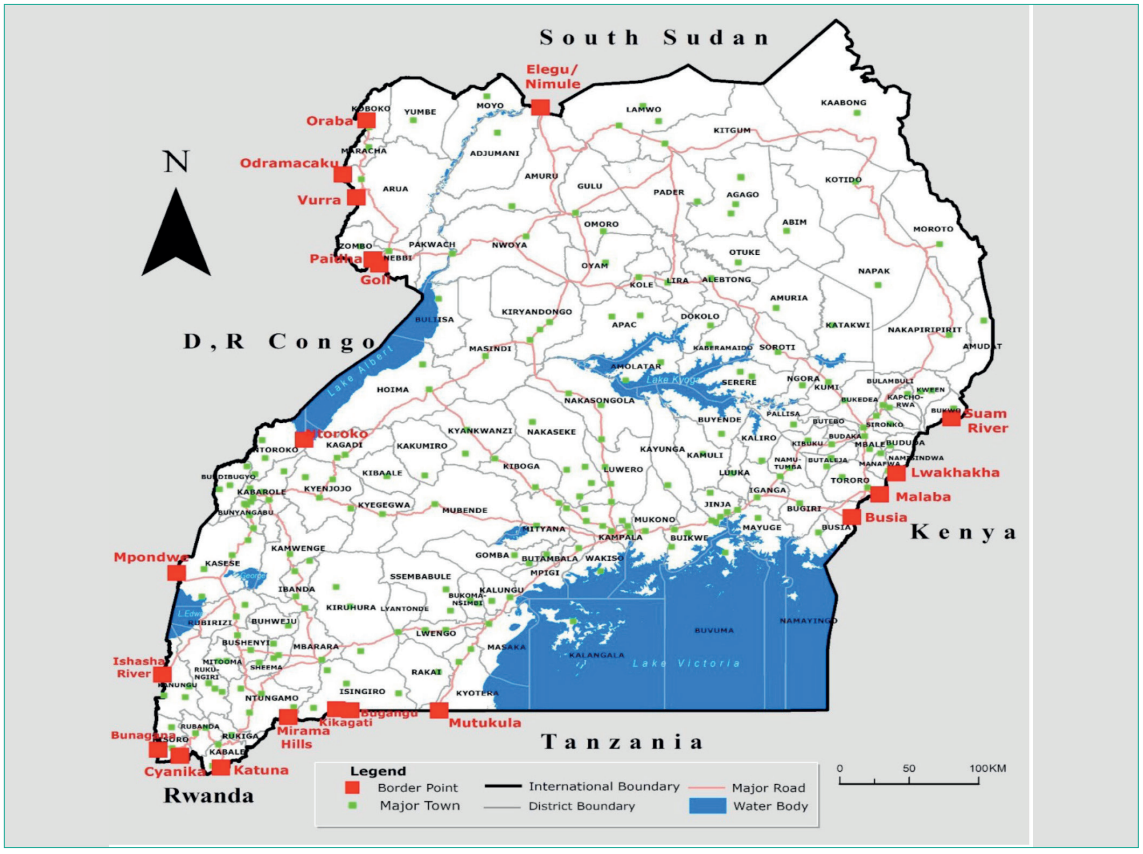
The direct observation technique entails strategic positioning of enumerators at border posts to enable them to record all merchandise moving into and out of the country. All traded goods that are not recorded by customs authorities are captured at the point of crossing the customs frontier in counter books or specially designed forms, specifying the item, quantity, value, and mode of transport among others (UBOS and Bank of Uganda 2005).

6 - https://www.bou.or.ug/bou/publications_research/icbt.html.

The main objective of these surveys is to establish and track the magnitude of unrecorded trade between Uganda and her neighbors in order to improve the coverage of external trade statistics (UBOS and Bank of Uganda 2005), national accounts, and balance of payment (BOP) statistics. In the absence of these surveys, estimates by BOP and national accounts compilers grossly understate the contribution of informal trade to overall international merchandise trade statistics in the BOP current account (UBOS and Bank of Uganda 2005).

The initial surveys involved 14 border stations: 4 along the Uganda–Kenya border, 6 along the Uganda–DRC border, 2 along the Uganda–Rwanda border, and 1 each along the Uganda–Sudan and Uganda–Tanzania borders for monitoring over a period of 140 days (each having 14 days monitored) in 10 months (UBOS and Bank of Uganda 2005) (Figure 6.6).

Figure 6.6 Border points monitored



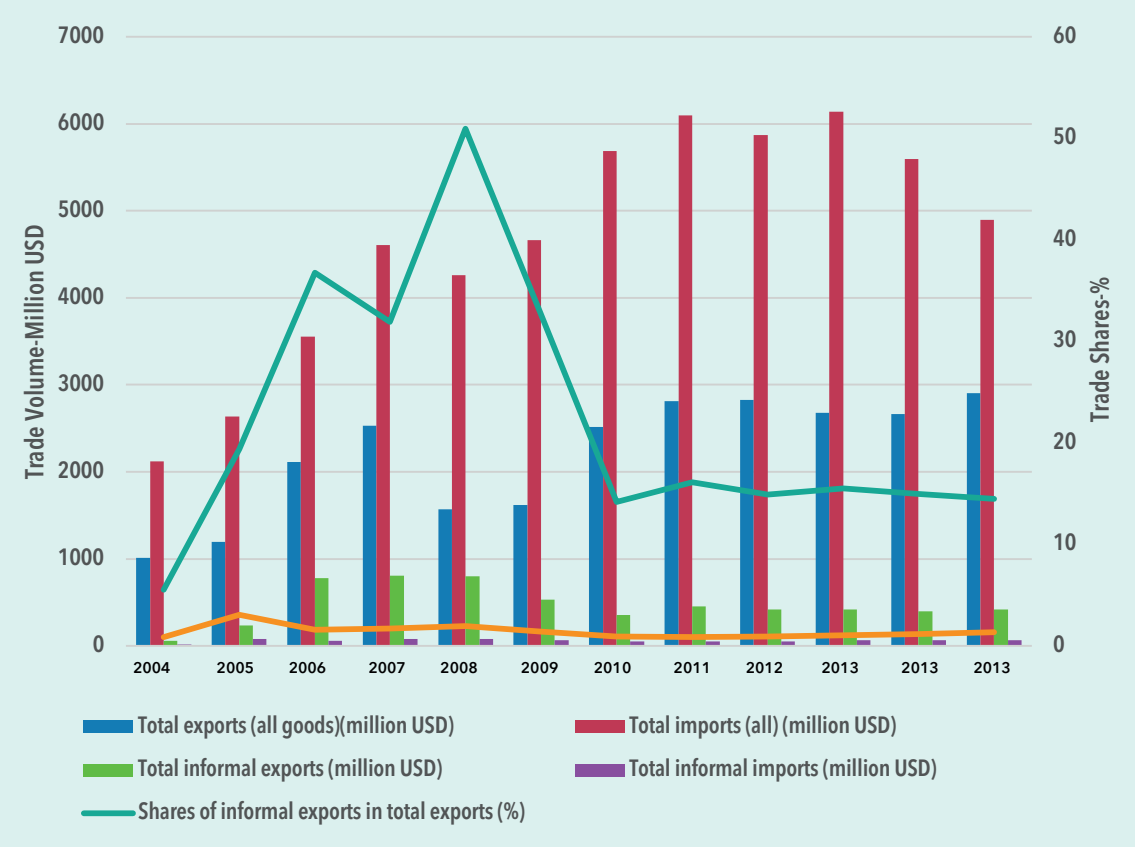
Source: Adapted from UBOS and Bank of Uganda 2017.

By 2016, the ICBT survey covered 20 border points and 4 bus terminals, representing coverage of over 90 percent of the informal trade transactions between Uganda and its neighbors (UBOS and Bank of Uganda 2016). There were indications that unrecorded (informal) trade was still extremely high in ESA. For instance, Ackello-Ogutu (1996) estimated that 30,000–60,000 tons of maize were traded informally annually from Zambia to DRC, costing Zambia US$3 million, and that much of Malawian "surplus" maize in the early 1980s was Mozambican.

Official border points tend to be located next to unofficial border routes, hence substantial volumes of informal trade can easily go unrecorded. Some ICBT surveys do not consider the unrecorded value or volume of trade caused by under-reporting or misclassification at official border points. Currently all agencies monitor ICBT between 6 am and 7 pm, and hence do not account for night trading activities. A snapshot of the trends in informal cross-border trade is provided below.

Figure 6.7 shows that Uganda's total trade (both exports and imports) has been increasing over time. Total exports have increased from US$1 billion in 2005 to almost US$3 billion in 2016, whereas total imports for all goods into Uganda have increased from just around US$2 billion in 2005 to over US$6 billion in 2014 before slightly declining to US$5 billion by 2016. Although both imports and exports have increased over the period from 2005 to 2016, it is important to note the large and yet widening gap between exports and imports, which implies that Uganda runs a trade deficit annually and it is on the increase. Informal trade accounts for a small but significant share of total trade. Uganda, however, exports more than it imports informally. Generally, the share of informal exports in total exports has stayed stable since 2011 at around 15 percent. Prior to 2011, the share of informal exports in total exports rose from under 10 percent in 2005 to just over 40 percent in 2009. The share of informal imports to total imports has been under 10 percent throughout the period, implying that Uganda's imports are dominated by formal imports. In passing, one could argue that, from a macroeconomic viewpoint, there is a need for Uganda to manage its imports to stabilize its trade balance. Increasing informal exports can play a role in reducing its trade deficit. Interestingly, informal exports account for more than 10 percent of formal exports, although informal imports account for a smaller share of formal imports. It is not clear whether this difference is due to under-declaration of informal imports.

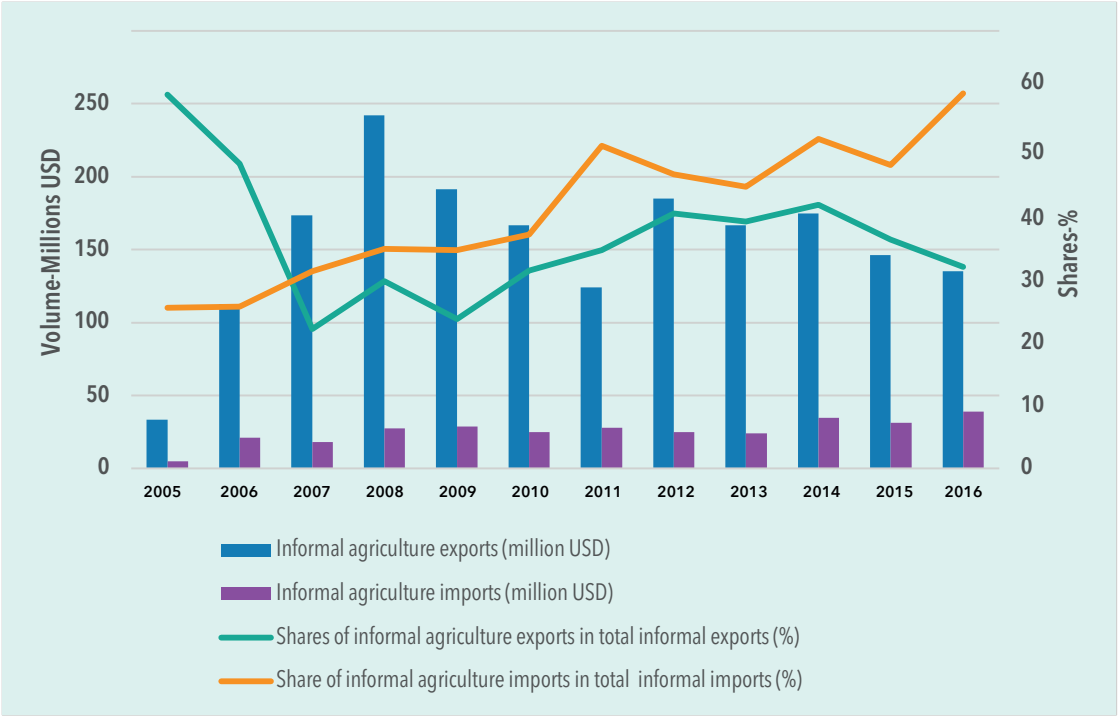
Figure 6.7 Comparison of Uganda's formal and informal exports and imports – trade with neighbors – all goods 2004-2013



Source: Authors' computation from UBOS and Bank of Uganda (2005,2010, 2016).

The surveys for ICBT in the initial years (2004–2005) showed that informal exports amounted to US$162.0 million, whereas informal imports were approximated to be as high as US$54.2 million. A comparison with US$189.7 million of formal (recorded) exports and US$432.5 million of formal imports with the five neighboring countries during the same period of the survey implies that informal (unrecorded) exports amount to approximately 85.3 percent of official exports, whereas informal imports amount to about 12.5 percent of official imports (UBOS and Bank of Uganda 2005, 2010 and 2016). Ugandan informal exports to DRC, Kenya, Rwanda, Sudan, and Tanzania represented US$224 million or 83 percent of its total recorded trade to these countries in 2006. In 2009 and 2010 Ugandan informal exports to its neighbors were worth US$790 million and US$520 million, respectively (UBOS and Bank of Uganda 2016).

Figure 6.8 Evolution of informal agricultural trade (in value and in share) between Uganda and neighbors 2005-2016



Source: Authors' computation from UBOS and Bank of Uganda (2005, 2010, 2016).

The goods traded informally across borders include agricultural goods (maize, groundnuts, soybeans, maize flour, etc.) and industrial goods (shoes, clothes, petroleum jelly, beers, mattresses, etc.) (UBOS and Bank of Uganda 2016).

Figure 6.8 clearly shows that both informal agricultural exports from and imports into Uganda have been increasing over time. It also notes that informal agricultural exports supersede informal agricultural imports, implying that Uganda has an informal agricultural trade surplus. Increasing informal cross-border agricultural exports could further complement any effort the government may be undertaking to reduce the conspicuous total trade deficit highlighted previously. While we note in this section that total informal imports are much lower than total informal exports, informal agricultural imports account for more than 20 percent of the total informal imports and have been increasing over time. The range of this share is 20 percent–60 percent. The percentage is comparable to the share of informal agricultural exports in total

informal exports. Informal imports, therefore, are dominated by agricultural informal imports, signifying that Uganda is increasingly relying on neighbors to meet its food demands. Once again, it is not clear whether the differential in shares for informal imports and informal exports is due to the under-declaration of informal imports often reported in such studies (e.g., Gelan et al. 2010).

Adding ICBT to official figures for intra-Africa trade would increase the share of intra-Africa trade in total trade. Although there are no systematic statistics on this form of intra-Africa trade, surveys undertaken in some regions reveal that it represents a large share of officially recorded trade.

Monitoring ICBT is resource intensive because, for complete coverage at an informal border crossing, there would have to be a dedicated monitor or group of monitors 24 hours a day, every day. Thus, it is not possible to collect data on all the trade that flows through even a single border. Night trade, for example, is likely to be missed. To generate realistic estimates that would capture seasonal patterns, it would be desirable that the surveys cover the whole calendar year. This is not possible in many cases, owing to financial constraints (UBOS and Bank of Uganda 2005).

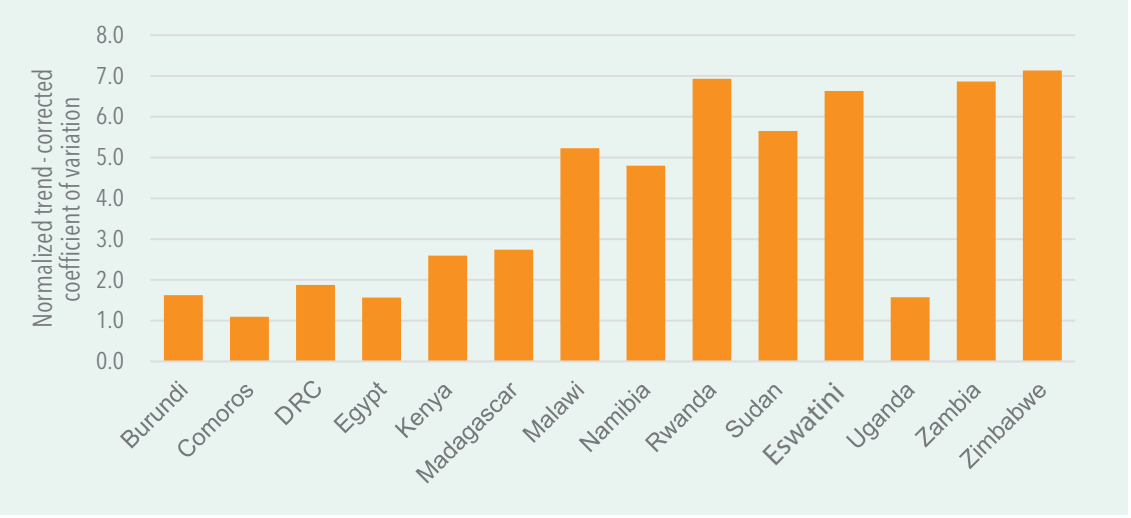
Regional potential for stabilization of domestic food markets through trade

Variability in domestic production is a major contributor to local food price instability among low-income countries. The causes of production variability (climate variability, water availability, inefficiency of credit and insurance markets, volatility of international prices, uncertainty in policy decisions, etc.) are such that an entire region is less likely to be affected than are individual countries. Moreover, fluctuations in national production tend to partially offset each other. To the extent that such fluctuations are less than perfectly correlated, food production can be expected to be more stable at the regional than at individual country levels (Minot, 2014). If that is the case, expanding cross-border trade and allowing greater integration of domestic food markets would reduce supply volatility and price instability in these markets. Integration of regional markets through increased trade raises the capacity of domestic markets to absorb local price risks by: (1) enlarging the areas of production and consumption and thus increasing the volume of demand and supply that can be adjusted to respond to and dampen the effects of shocks; (2) providing incentives to invest in marketing services, and expanding capacities and activities in the marketing sector, which raise the capacity of the private sector to respond to future shocks; and (3) lowering the size of needed carryover stocks, thereby reducing the cost of supplying markets during periods of shortage and hence decreasing the likely amplitude of price variation.

This section presents a simple comparison of the variability of cereal production in individual countries, against the regional average, to illustrate the potential for local market stabilization through greater market integration. For that purpose, a trend-corrected coefficient of variation is calculated as a measure of cereal production variability at country level. Then an index of regional cereal production volatility is derived for the COMESA region as a weighted average of the trend-corrected coefficients of variation of its member countries (Koester, 1986). Finally, country coefficients are normalized by dividing them by the regional coefficient.

In Figure 6.9, the bars represent the normalized coefficients of variation, which indicate by how much individual country production levels are more (normalized coefficient greater than 1) or less (normalized coefficient less than 1) volatile than production in the COMESA region. The figure shows that, in all countries, national production volatility is larger than regional level volatility. COMESA countries can be divided into a relatively low-volatility sub-group with normalized coefficients of less than twice the regional average (including Burundi, Comoros, DRC, Egypt, and Uganda), and a high-volatility regional sub-group with volatility levels that are at least five times higher than the regional level (Eswatini, Malawi, Mauritius,[7] Rwanda, Sudan, Zambia, and Zimbabwe). Between the two groups are Kenya and Madagascar with moderate levels of volatility. The countries in the moderate- and high-volatility sub-groups would be the biggest beneficiaries of increased regional trade in terms of greater stability of domestic supplies. However, the likelihood that a given country will benefit from the trade stabilization potential here described will be greater when the fluctuations of its production and those of the other countries in the region are less correlated.

Figure 6.9 Cereal production instability in countries in the common market for eastern and southern Africa (1980–2010)



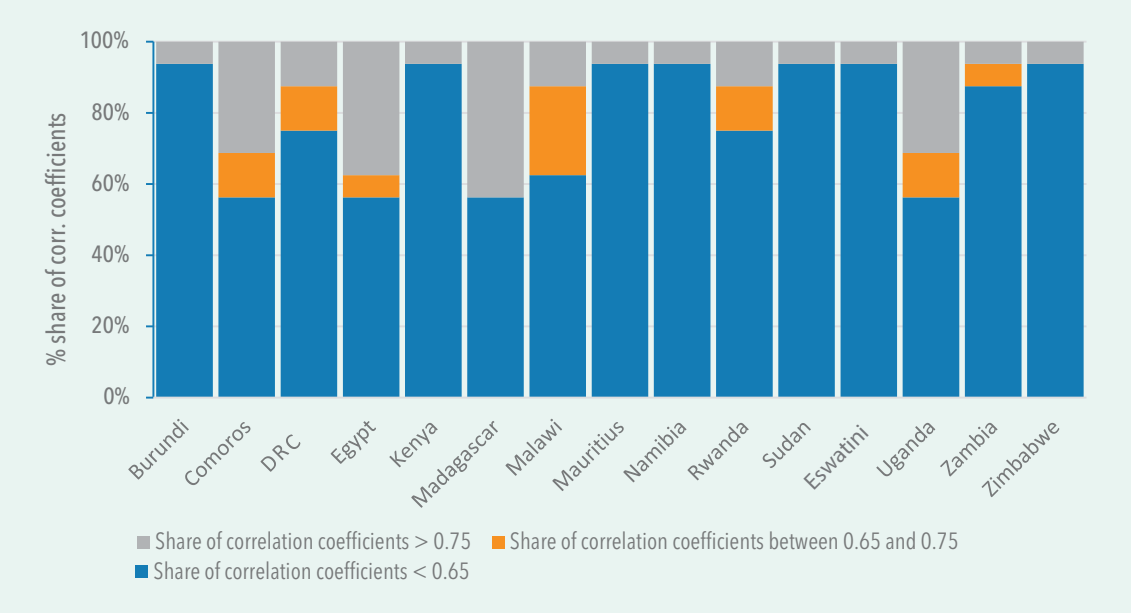
Source: Adapted from Badiane and Odjo, 2016.

Figure 6.10 presents the distribution of correlation coefficients between individual country production levels for each regional group. For each country, the lower segment of the bar shows the percentage of correlation coefficients that are 0.65 or less, or the share of other countries in the region with production fluctuations that we define as relatively weakly correlated with the country's own production movements. The top segment represents the share of countries with highly correlated production fluctuations, with coefficients that are higher than 0.75. The middle segment is the share of moderately correlated country production levels with coefficients that are between 0.65 and 0.75. For example there are 12 countries (75 percent) for which the coefficient of correlation between production of these countries and DRC is less than 0.65, 2 countries (12.5 percent) for which this coefficient is between 0.65 and 0.75, and 2 for which it is greater than 0.75 (12.5 percent). This explains the distribution within DRC's bar.

7 Mauritius has a coefficient that is more than 18 times the regional average and is not shown on the figure for the sake of clarity.

Figure 6.10 shows a high concentration of weakly correlated country production levels, with 60 percent of the correlation coefficients for any given country in the below 0.65 category. The combination of high volatility and weak correlation suggests that countries in this region would reap a large benefit from increased regional trade in terms of domestic market stabilization. In general, the patterns and distribution of production fluctuations across countries in the region are such that increased trade may be expected to contribute to stabilizing domestic agricultural and food markets. But that is only one condition: the other is that there is actual potential to increase cross-border trade, a question that is examined in the next section.

Figure 6.10 Distribution of production correlation coefficients between countries in the common market for eastern and southern Africa (1980–2010)



Source: Adapted from Badiane and Odjo, 2016.

The scope for specialization and regional trade expansion in agriculture

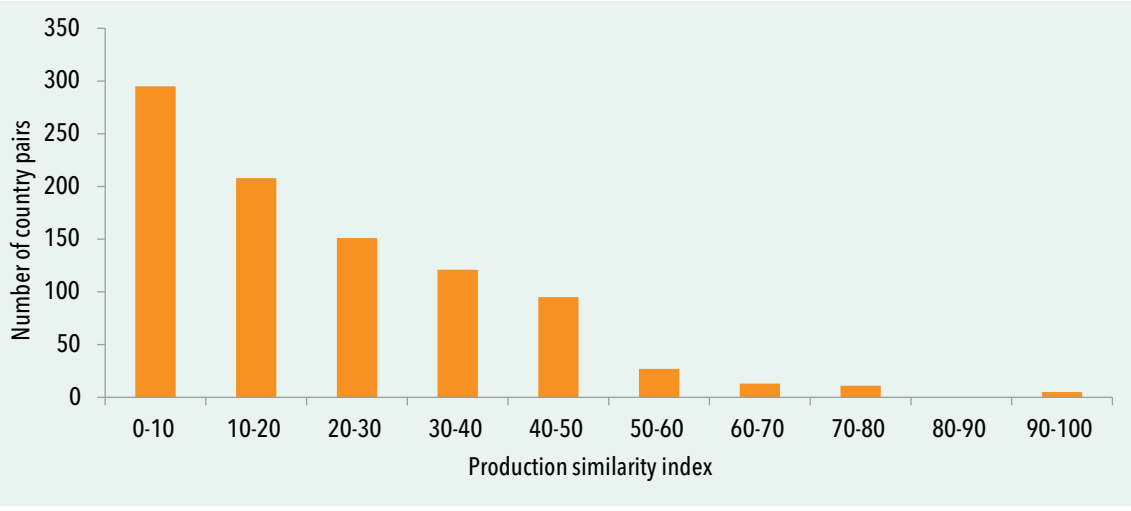
Despite recent upward trends, levels of intra-Africa and intraregional trade are low. There may be a host of factors behind these low levels. These factors may raise the cost of supplying regional markets from intraregional sources. The exploitation of the regional stabilization potential pointed out above would require measures to lower the barriers to and bias against transborder trade; these measures would stimulate the expansion of regional supply capacities and of trade flows across borders. This supposes that there is sufficient scope for specialization in production and trade within the region. Often, it is assumed that neighboring developing countries would exhibit similar production and trading patterns because of similarities in their resource bases, with little room for future specialization.

There are, however, several factors that may lead to different specialization patterns among such countries. These factors include: (1) differences in historical investments in technologies and thus the level and structure of accumulated production capacities and skills; (2) the economic distance to, and opportunity to trade with, distant markets; and (3) differences in dietary patterns as well as other consumer preferences that affect the structure of local production as it responds to local demand. The relatively different patterns of specialization of Senegal compared to the rest of Sahelian West Africa, or of Kenya compared to other eastern African countries, are a good illustration of the influence of these factors.

Consequently, we use a series of indicators to assess the actual degree of specialization in agricultural production and trade. This will also allow us to see whether there is real scope for transborder trade expansion as a strategy to exploit the less-than-perfect correlation between national production levels to reduce the vulnerability of domestic food markets to shocks. The first two indicators are the production and export similarity indices through which, in every country, the relative importance of the production and trade of individual agricultural products is measured and ranked. The level of importance or position of each product is then compared for all relevant pairs of countries within the region[8]. The indices have a maximum value of 100, which would reflect complete similarity of production or trade patterns between the pair of countries being considered. The smaller the value of the indices, the greater the degree of specialization between the two countries. Index values of around 50 and below are interpreted as indicating patterns of specialization that are compatible with higher degrees of trade expansion.

Figures 6.11 and 6.12 present the results of the calculations of production and export similarity indices using FAO data for the period 2007–2011 and covering a total of 150 products. Each bar represents the number of country pairs that fall within the corresponding range of index values. The vast majority of country pairs fall within the 0–50 range. The estimated index values, therefore, suggest that there exists sufficient dissimilarity in current country production and trade patterns, and hence scope for transborder trade expansion in the region.

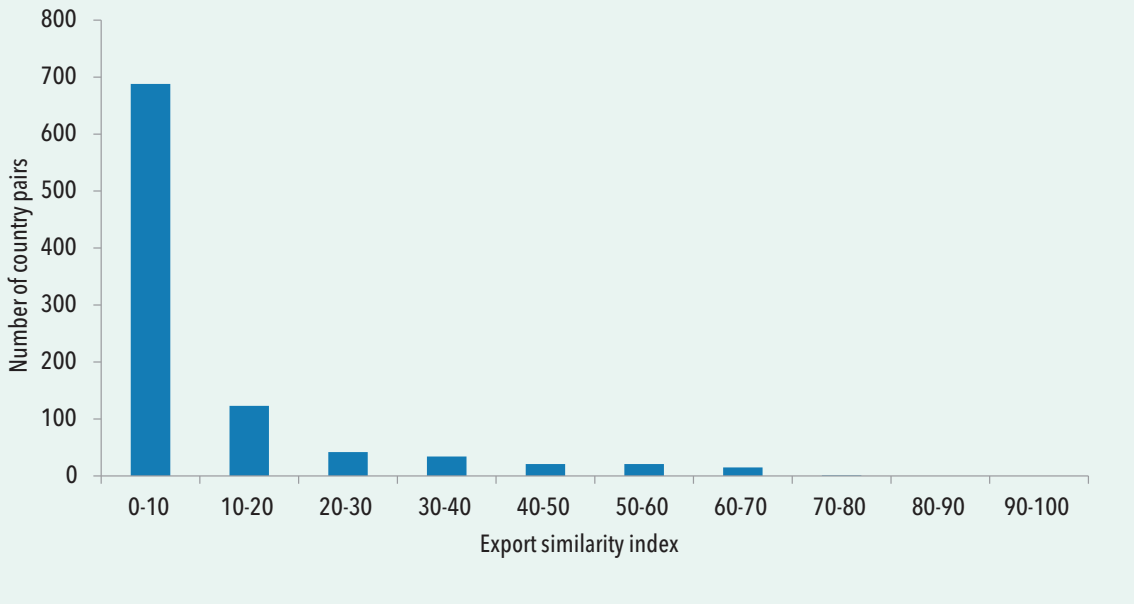
Figure 6.11 Similarity of production patterns among countries in the common market for eastern and southern Africa, 2007–2011



Source: Adapted from Badiane and Odjo, 2016.

8 See Koester, 1986.

Figure 6.12 Similarity of trading patterns among countries in the common market for eastern and southern Africa, 2007–2011



Source: Adapted from Badiane and Odjo, 2016.

A third indicator, the revealed comparative advantage (RCA) index, is computed to further assess the degree of trade specialization among countries within the region. The RCA index (Balassa, 1965) compares the share of a given product in a given country's export basket with that of the same product in total world exports. A value greater than 1 indicates that the considered country performs better than the world average, and that the higher the value is, the stronger the performance of the country in exporting the considered product. Of the nearly 600 RCA indicators estimated for various products exported by different COMESA countries, 70 percent have a value higher than 1. The 20 products with the highest normalized RCA index values are presented in Table 6.9. The normalized RCA is positive for RCA indicators that are greater than 1 and negative otherwise.[9] For very high RCA indicators, the normalized value tends toward 1.

All the products listed in Table 6.9 have normalized RCA values above 0.98. The rankings reflect the degree of cross-country specialization within the COMESA region. For instance, 13 products, spread across 9 of 19 member countries, account for the highest 20 indicators for the region. This suggests that country specialization patterns are sufficiently distinct to allow scope for trade expansion.

Table 6.9 The 20 products with highest normalized revealed comparative advantage index values in countries in the Common Market for Eastern and Southern Africa, average 2007–2011

Commodity	Country
Cloves	Comoros
Vanilla	Comoros
Vanilla	Madagascar
Coffee husks and skins	Uganda

9 The formula for the normalized RCA is (RCA-1)/(RCA+1), following Laursen (2000).

Cloves	Madagascar
Oil essential nes	Comoros
Coffee husks and skins	Burundi
Sesame seed	Ethiopia
Skins, sheep, dry salted	Ethiopia
Coffee, substitutes containing coffee	Rwanda
Coffee husks and skins	Kenya
Goat meat	Ethiopia
Cotton carded, combed	Uganda
Sesame seed	Eritrea
Tobacco, unmanufactured	Malawi
Oilseeds, nes	Ethiopia
Broad beans, horse beans, dry	Ethiopia
Cotton carded, combed	Burundi
Skins, sheep, dry salted	Rwanda
Tea	Rwanda

Source: Adapted from Badiane and Odjo, 2016

So far, the analysis in this section has established the existence of dissimilar patterns of specialization in production and trade of agricultural products among countries within COMESA. Two final indicators, the Trade Overlap Indicator (TOI) and the Trade Expansion Indicator (TEI), are calculated to examine the potential to expand trade within the region based on current trade patterns. They measure how much of the same product a given country exports and imports at the same time. The TOI measures the overall degree of overlapping trade flows for a country or the region as a whole, while the TEI measures the overlapping trade flows at the level of individual products for a country or the region. The TOI and TEI are calculated as:

$$TOI_i = 2\left(\sum_k Min(E_{ik}, M_{ik})\right) \Big/ \sum_k (E_{ik} + M_{ik})$$

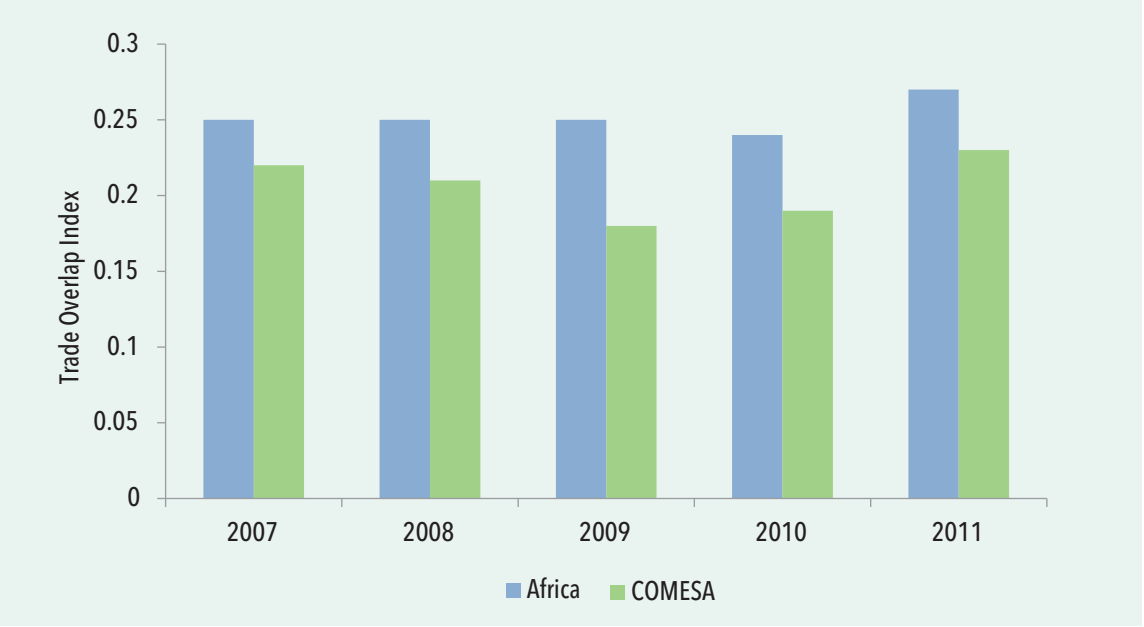
$$TEI_{ik} = 100 \cdot [Min(E_{ik}, M_{ik}) / Max(E_{ik}, M_{ik})]$$

where E_{ik} and M_{ik} denote the values of the exports and imports of an agricultural product by a country . The TOI varies between 0 and 1. It will be 0 if each individual product is only exported or only imported by the country. It will be 1 in the unlikely situation in which the country both exports and imports all traded products by an equal amount. The TEI indicates the percentage of the country's exports (imports) of a product that are matched by the country's imports (exports) of the same product.

The results of TOI and TEI calculations using FAO trade data are presented in Figure 6.13 and Table 6.10. Figure 6.13 indicates that there is a considerable degree of overlapping trade flows: 25 percent for Africa as whole and as much as 21 percent for the COMESA region. Normalized TOI values obtained by dividing country TOI values by the TOI value for the region can be found in Badiane et al. (2014). In the vast majority of cases, they are significantly less than 1. The overlapping regional trade flows must, therefore, be from different importing and exporting countries. In other words, some countries are exporting (importing) the same products that are being imported (exported) by other COMESA member countries, but in both cases to and from countries outside the region. By redirecting such flows, countries should be able to expand transborder trade within the region.

The TEI indicates which products have the highest potential for increased transborder trade based on the degree of overlapping trade flows. Table 6.10 lists the 20 products with the highest TEI value for the region. The lowest indicator value in the region is 0.57. RCA values for the same products presented in Badiane et al. (2014) are all greater than 1, except for bananas. The fact that products with high TEI values also have high RCA indicator values points to a real scope for transborder trade expansion in the region.

Figure 6.13 Trade overlap indicators, average 2007–2011



Source: Adapted from Badiane and Odjo, 2016.
Note: COMESA = Common Market for Eastern and Southern Africa.

Table 6.10 Trade expansion indicators, average 2007–2011

Commodity	TEI value
Beans, dry	0.825
Sugar confectionery	0.821
Vegetables, preserved	0.819
Juice, fruit	0.819
Cigarettes	0.782
Spices	0.716
Sugar, raw centrifugal	0.716
Fruit, prepared	0.703
Groundnuts, shelled	0.700
Cake, cottonseed	0.680
Pineapples	0.677
Cereal preparations	0.665
Anise, badian, fennel, coriander	0.655
Waters, ice, etc.	0.655

Cheese, whole cows' milk	0.604
Bananas	0.592
Bran, wheat	0.586
Tobacco products	0.586
Pepper	0.578
Orange juice, single strength	0.566

Source: Adapted from Badiane and Odjo, 2016.

Note: Two products with high trade expansion indicators (TEI) but which are not being produced in the regions are included, as they relate to re-export trade.

These findings point to the existence of a real potential to expand intra-trade within COMESA beyond current levels, even with current production and trade patterns. The remainder of this chapter, therefore, analyzes the outlook for intra-trade expansion and the expected impact on the volatility of regional food markets over the next decade. This is done by simulating alternative policy scenarios to boost intraregional trade, and by comparing the effects on the level and volatility of trade flows up to 2025 to historical trends and outcomes under a baseline scenario that would continue these trends.

The outlook for regional cross-border trade and market volatility under alternative scenarios

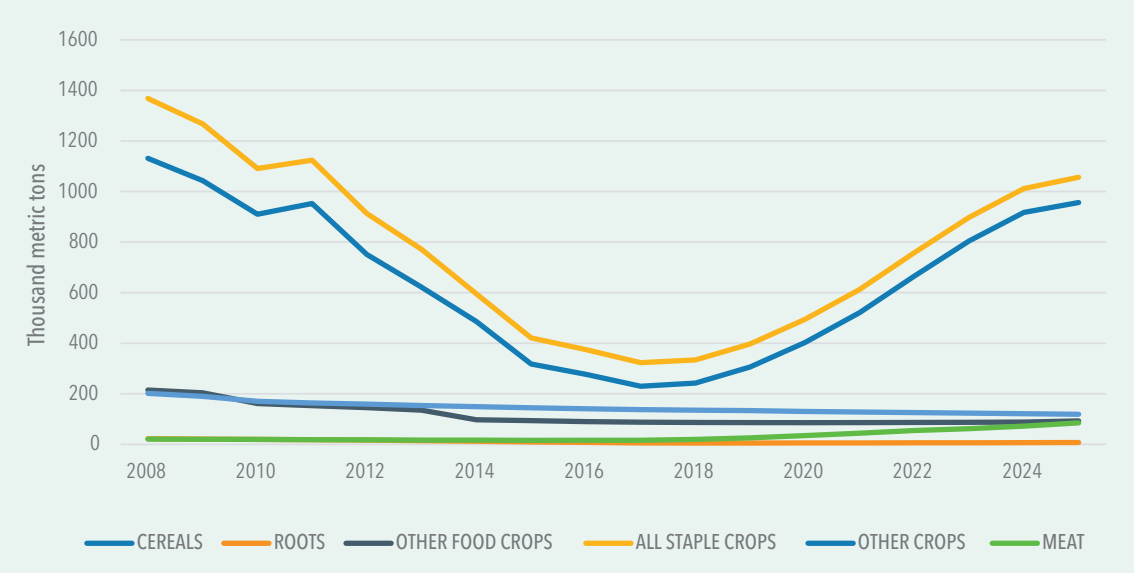
The preceding analysis presents evidence showing that African countries could use increased regional trade to enhance the resilience of domestic markets to supply shocks. The high cost of moving goods across domestic and transborder markets, and outwardly biased trading infrastructure, are major determinants of the level and direction of trade among African countries. A strategy to exploit the regional stabilization potential, therefore, has to include measures to lower the general cost of trading and remove additional barriers to cross-border trade. This section simulates the impact on regional trade flows of changes in that direction. Simulations of changes are carried out using IFPRI's regional Economy-wide Multimarket Model (EMM) described in Badiane and Odjo (2016).

Four different scenarios are simulated using the EMM. The first is the baseline scenario, which assumes that each country maintains a continuation of current trends in population, yields, cultivated areas, outputs, and GDP until 2025. It is used later as a reference to evaluate the impact of changes under the remaining three scenarios. The latter scenarios introduce the following three different sets of changes to examine their impacts on regional trade levels: (1) a reduction of 10 percent in the overall cost of trading across the economy; (2) a removal of all cross-border trade barriers (that is, a reduction in their tariff equivalent to 0); and (3) an across-the-board 10 percent increase in yields. These changes are to take place between 2008, the base year, and 2025. The change in cross-border exports is used as an indicator of the impact on intraregional trade.

The results are presented in Figures 6.14 and 6.15. The results of the baseline scenarios from 2008 to 2025 are shown in Figure 6.14. If the current rates of growth in yields, cultivated areas, population, and non-farm income are sustained to 2025, the levels of intra-COMESA trade would continue to stagnate, except in the case of cereals. Even in the latter case, the decline in trade volumes would be reversed, but not enough to bring them back to their initial levels. The projected evolution of the cereals trade reflects different country dynamics and a shift in the sources of regional exports. The fall in regional trade levels at the beginning of the period is a result of continuing decline in exports from the two main traditional suppliers, Egypt and Malawi. At the same time, faster growth in several other countries, particularly Tanzania and Ethiopia, results in rising exports from these countries, starting from 2011 for Tanzania and from 2019 for Ethiopia. The result is a U-shaped pattern in COMESA cereals exports, as export declines in some countries are eventually outweighed by increases in others.

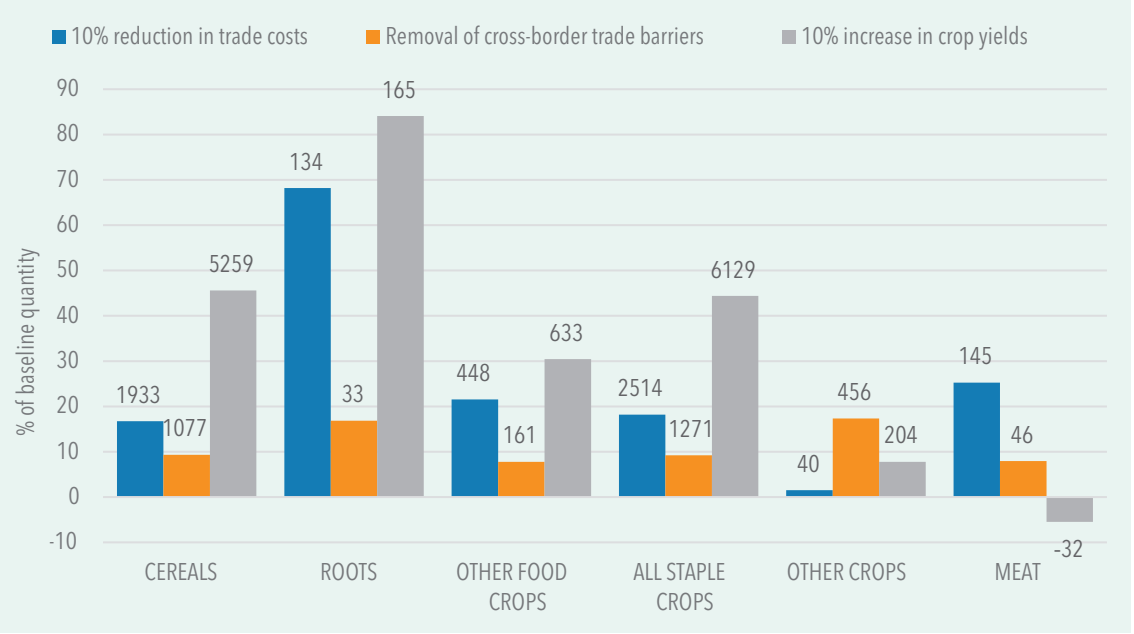
Figure 6.15 shows the cumulated changes in intraregional export levels by 2025 compared to the baseline, which would result from a reduction in total trading cost, removal of transborder trade barriers, and an increase in yields. The bars represent the proportional changes in percent and the numbers on top of the bars indicate the corresponding absolute changes in thousand MT. The results invariably show considerable increases in intraregional trade in cereals and in roots and tubers, the main food crops, in response to changes in trading costs and yields. Intra-community cereals trade levels in COMESA tend to respond less than trade in roots and tubers in proportional terms but, because of initially higher levels, the accumulated additional volume of regional trade is much higher, ranging from 1 million MT to more than 5 million MT above the baseline. Intraregional trade seems to respond more to changes in overall costs of trading and yields than to changes in cross-border barriers. This may be explained by the fact that equivalent tariffs constitute a smaller fraction of producer prices; hence, changes in barriers result in smaller changes in incentives. Cereals seem to respond better than other products in general.

Figure 6.14 Regional exports outlook, baseline, 2008–2024



Source: Adapted from Badiane and Odjo, 2016.

Figure 6.15 Changes in intraregional exports by 2025 resulting from three cost and yield scenarios



Source: Adapted from Badiane and Odjo, 2016.

Note: Figures on top of bars indicate cumulative increases in regional export supply in 1,000 metric tons. Other crops include all or a subset of the following crops: fruits and vegetables, cotton, sugar, cocoa, coffee, tea, tobacco, spices, and nuts.

Regional market volatility under alternative policy scenarios

Under each scenario, model-simulated quantities of intraregional exports are used to estimate an index of future export volatility at country and regional levels. The historical and simulated levels of volatility of cross-border trade in food staples in the region under historical trends, and in each of the alternative scenarios, are reported in Table 6.11. Calculations of volatility levels under historical trends are based on the International Trade Center's Trade Map database (ITC, 2016). In Table 6.11, simulated volatility levels under the various scenarios are compared with the historical levels of volatility, with the difference expressed in point changes. As can be seen from the numbers in the table, volatility levels are lower under all scenarios than under historical trends. The magnitude of changes is, however, rather small across all three scenarios. The numbers also show that if current trends of rising volumes of intraregional trade continue, volatility levels in the region are expected to decline compared to historical trends. A better comparison is, therefore, to contrast changes under the two trade policy scenarios and the productivity scenario with expected volatility levels under the baseline scenario. Furthermore, the direction and magnitude of changes in the level of intraregional trade volatility are determined by the combined effect of changes in the level of volatility, as well as by shares of cross-border exports by individual countries. Figure 6.16 shows changes in volatility levels (x-axis) and shares of exports (y-axis) by individual countries under each of the trade and productivity scenarios compared to the baseline. The different dots indicate the position of different countries under the three scenarios. The tilted distribution of country positions to the left of the x-axis indicates

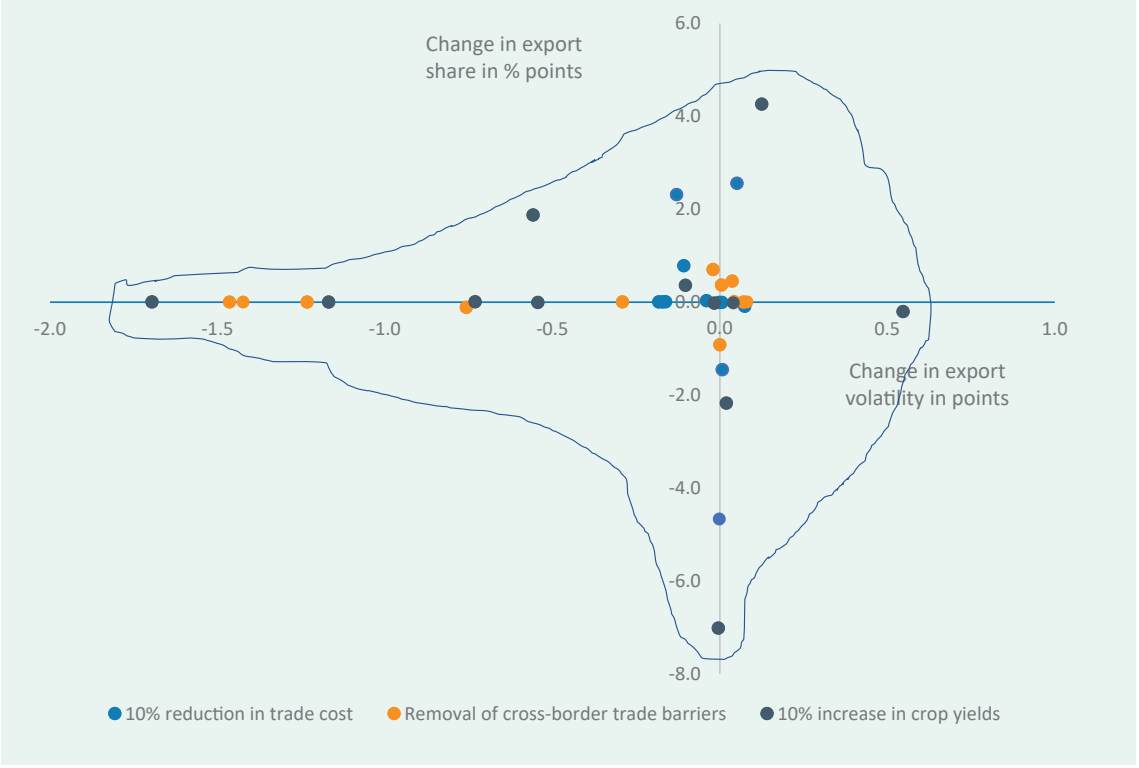
that exports by most countries would experience a lower level of volatility under regional policies that would reduce the overall cost of trading, eliminate administrative and regulatory obstacles to transborder trade, or raise yields of staple crops in member countries.

Table 6.11 Change in volatility in intra-common market for eastern and southern Africa trade under alternative scenarios (2008–2025)

	Historical trend (1996–2012)	Baseline trend (2008–2025)	10% reduction in trade costs (2008–2025)	Removal of cross-border trade barriers (2008–2025)	10% increase in crop yields (2008–2025)
Volatility index	0.682	0.55	0.505	0.551	0.449
Change in volatility from historical trend		−0.132	−0.178	−0.132	−0.234

Source: Adapted from Badiane and Odjo, 2016.

Figure 6.16 Changes in country export shares and volatility compared to baseline trends



Source: Adapted from Badiane and Odjo, 2016

The combined changes in export share and volatility for individual countries under each of the scenarios are reported in Table A6.1 and presented in Figures A6.1 to A6.3 in the Annex. Only countries that have exported historically are considered. Changes in country production patterns resulting from the simulated policy actions lead to changes in both the volatility as well as in the level of exports, and hence in the shares in regional trade for each country. The magnitude and direction of these changes determine the contribution of individual countries to changes in the level of volatility in regional food markets.

Conclusions

The RECs in the ESA region can be divided into two categories: those that fit into the LPA, and those that grew outside the LPA. The PTA, which was superseded by COMESA in 1994, was created as a result of the LPA to serve the ESA region. Within the geographic area of the PTA, the EAC, SACU, and CEPGL groupings existed before the LPA of 1980. The members of the PTA were also joined by IGADD in 1986; this was replaced in 1996 by IGAD, as well as by the IOC, which was founded in 1984. SADCC, a precursor of SADC, was established in 1980. The CBI was established by 14 countries in 1993 as an approach to regionalism, with an emphasis on private sector involvement in policy formulation and implementation. The common feature among all the RECs is that their main aims converge toward regional integration and cooperation in economic, social, and political spheres.

The regional trade arrangements that existed between the 1960s and 1993 were created for political rather than economic reasons, as the majority of the states had conflicts within and between themselves. These conflicts led to sluggish performance and even the collapse of some RECs, for instance EAC and CEPGL, which fell apart in 1977 and 1994, respectively. Before 1994, almost none of the regional trade arrangements recorded membership expansion, except for SACU and SADC (which admitted Namibia in 1990), and IGADD (which admitted Eritrea in 1993). We also learn that only SACU achieved full FTA and customs union status: these were inherited from the colonial era. SADC was also transformed from a conference to a formally recognized regional community in 1992.

The period 1994–2018 saw growth in the number of RECs in the ESA region, with those that collapsed in the previous period being regenerated. Of the established regional trade arrangements, only COMESA, SADC, and SACU have FTA status, but these are only fully operational in the SACU bloc. COMESA launched a customs union in 2009 after acceding to the COMESA-SADC-EAC free trade zone in 2008. The regional trade arrangements did not achieve the desired outcomes, owing to problems such as multiple membership, which limited the cooperation of member states. The heterogeneity of states also seems to be working against the desired progress, as weaker states lose out to stronger states in each bloc.

The analysis of both trade flows and trade cost indicators reveals that COMESA is lagging behind other continental counterparts such as ECOWAS and the Central African Economic and Monetary Community (CEMAC). Intra-trade flows are still low in the region, and this could be attributable to high trading costs, as evidenced by tariffs, the presence of NTMs, strict border compliance requirements, and harassment of small-scale traders in the region. There is also evidence that COMESA member states are mostly trading with third countries, rather than with regional counterparts.

A few agencies and surveys in the region have monitored or attempted to monitor informal trade but much of the trade data remain unrecorded. It would appear that, for a quantitative assessment of informal trade, a long-term monitoring program at many border posts is required. Thus, making a deliberate effort to strengthen aspects of the existing initiatives could be valuable. To establish solid baselines for future monitoring, implementing comprehensive one-off surveys of specific borders between countries may be helpful.

Monitoring all borders has financial implications; hence there is need for monitoring agencies to identify key borders in a manner that can accurately represent the extent of informal trade in a particular country, as inaccuracy can lead to overemphasis elsewhere at the expense of the bigger picture.

This chapter has also examined the existing potential to use increased intraregional trade within COMESA as a means to raise the resilience of domestic food markets to shocks across their member countries. The distribution and correlation of production volatility, as well as the current patterns of specialization in production and trade of agricultural products across countries, suggest that it is indeed possible to raise cross-border trade to reduce the level of instability of local food markets. The results of the modeling exercise indicate that continuation of recent trends would sustain the expansion of intraregional trade flows in the region. The findings also reveal that it is possible to significantly boost the pace of regional trade expansion, and thus its contribution to creating more resilient domestic food markets, through a modest reduction in the overall cost of trading, a similarly modest increase in crop yields, or the removal of barriers to transborder trade. More importantly, simulation results also suggest that such policy actions to promote transborder trade would reduce volatility in regional markets and help lower the vulnerability of domestic food markets to shocks.

References

Ackello-Ogutu, C. 1996. *Methodologies for Estimating Informal Crossborder Trade in Eastern and Southern Africa: Kenya/Uganda Border Tanzania and its Neighbors Malawi and its Neighbors Mozambique and its Neighbors*. Technical Paper No. 29. Washington, DC: USAID SD Publication Series. Office of Sustainable Development Bureau for Africa.

Asante, S. K. B. 1997. *Regionalism and Africa's Development: Expectations, Reality and Challenges*. UK: Palgrave Macmillan.

Badiane, O., and S. Odjo. 2016. *Regional trade and volatility in staple food markets in Africa*. In Kalkuhl et al. (eds.), Food Price Volatility and Its Implications for Food Security and Policy, DOI 10.1007/978-3-319-28201-5_16. Chapter 16, pp. 385-412. http://link.springer.com/book/10.1007%2F978-3-319-28201-5

Badiane, O., T. Makombe, and G. Bahiigwa. 2014. *Promoting Agricultural Trade to Enhancing Resilience in Africa*. Annual Trends and Outlook Report. Regional Strategic Analysis and Knowledge Support Systems. Washington DC.

Balassa, B. 1961. "Towards a Theory of Economic Integration" Kyklos 14.1: 1-17.

Balassa, B. 1965. "Trade Liberalisation and "Revealed" Comparative Advantage." The Manchester School 33.2: 99–123.

Bouët, A., L. Cosnard, and D. Laborde. 2017. *Measuring Trade Integration in Africa*. IFPRI Discussion Paper 01667. Washington, DC: International Food Policy Research Institute.

Brenton, P., and C. Soprano. 2018. "Small Scale Cross-border Trade Africa: Why it Matters and How it Should Be Supported." *Bridges Africa*, 7 (4):4-6.

Chiliya, N., R. Masocha, and S. Zindiye. 2012. Challenges facing Zimbabwean cross-border traders trading in South Africa: A review of literature. Chinese Business Review, 11(6): 564-570

COMESA. 2014. *Annual Report: Inclusive and Sustainable Industrialization*. *Lusaka*: COMESA Secretariat.

COMTRADE, 2019. *http://data.un.org/browse.aspx?d=ComTrade*, accessed on April, 1st, 2019.

http://comstat.comesa.int/Home.aspx.

Crush, J. 2015. *Calibrating Informal Cross-border Trade in Southern Africa*. Southern African Migration Programme (SAMP). Cape Town: International Migration Research Centre (IMRC).

Eastern African Sub-regional Support Initiative for the Advancement of Women (EASSI). 2012. Women Informal Cross Border Traders: Opportunities and Challenges in the East African Community: An Action Research. EASSI, Kampala, Uganda.

FAO. 2017. *Formalization of informal trade in Africa. Trends, experiences and socio-economic impacts*. Rome: FAO.

FEWSNET. 2011. *Price Watch* – May 2011 Food Prices. *https://reliefweb.int/report/world/global-price-watch-may-2011-food-prices*

———. 2012. *East Africa Food Security Outlook Update September 2012 http://fews.net/east-africa/food-security-outlook-update/september-2012*

———. 2015. *Southern Africa Food Security Outlook Update September. http://fews.net/fr/southern-africa/food-security-outlook-update/june-2015*

FEWSNET (2019). *http://fews.net/fews-data/337, accessed on April, 1st, 2019.*

FSNWG. 2017. *East Africa Cross-border Trade Bulletin.* Nairobi: FSNWG.

Gelan, A., S. Gbegbelegbe, J. Wanjiku, and J. Karugia. 2010. *Intra-Regional Trade in COMESA: A Methodology for Tracking Trade In Selected Staple Food Products.* Nairobi: Project Report for USAID by the Regional Strategic Analysis and Knowledge Support System, East and Central Africa (ReSAKSS-ECA).

Gourdon, J. 2014. CEPII NTM-MAP: A T*ool for Assessing the Economic Impact of Non-tariff Measures.* Working Paper 2014–24. Paris: Centre d'Etudes Prospectives et d'Informations Internationales.

ITC. 2016. Trade Statistics for International Business Developmemt. *https://www.trademap.org/Index.aspx*

Jones, B. 2002. "Economic Integration and Convergence of Per Capita Income in Africa." *African Development Review 14 (1): 18–47.*

Kee, H. L., A. Nicita, and M. Olarreaga. 2009. "Estimating Trade Restrictiveness Indices." *Economic Journal 119: 172–199.*

Koester, U. 1986. *Regional cooperation to improve food security in Southern and Eastern African countries.* IFPRI. Research Report 53. Washington DC.

Laursen, K. 2000. Trade Specialisation, Technology and Economic Growth: Theory and Evidence from Advanced Countries, Cheltenham: Edward Elgar.

Lesser, C. and E. Moisé-Leeman. 2009. *Informa ICross-Border Trade and Trade Facilitation Reform in Sub-Saharan Africa.* OECD Trade Policy Papers No. 86. Paris: OECD Publishing. *http://dx.doi.org/10.1787/225770164564.*

Macamo, J.L. 1998. *Estimates of Unrecorded Cross Border Trade between Mozambique and her Neighbours: Implications for Food Security*. Regional Economic Development Support Office for Eastern and Southern Africa: USAID, Washington D.C., Technical Paper.

McCarthy, C. 1996. Regional Integration: Part of the Solution or Part of the Problem?, in Ellis, S., ed., *Africa now: Policies, People, Institutions.* London: James Curry Ltd.

Minde, I., and T.O. Nakhumwa. 1998. *Unrecorded Cross-border Trade Between Malawi and her Neighbours*. Technical Paper No. 90. AMEX International, Inc, USAID, Washington D.C.

Minot, Nicholas. "Food price volatility in sub-Saharan Africa: Has it really increased?." Food Policy 45 (2014): 45-56.

Nhamo, L., Matchaya, G., Mabhaudhi, T., Nhlengethwa, S., Nhemachena, C., and S. Mpandeli (2019). Cereal Production Trends under Climate Change: Impacts and Adaptation Strategies in Southern Africa, Agriculture (9), 1-17

Ogalo, V., 2010. *Informal Cross-Border Trade in EAC Implications for Regional Integration and Development*. Working paper. Nairobi: CUTS African Resource Centre.

UBOS and Bank of Uganda. 2005. Informal Cross Border Trade Survey Report 2005–2006, UBOS, Kampala.

———. 2010. Informal Cross Border Trade Survey Report 2009–2010, UBOS, Kampala.

———. 2016. Informal Cross Border Trade Survey Report 2015–2016, UBOS, Kampala.

———. 2017. Informal Cross Border Trade Survey Report 17, UBOS, Kampala.

UNECA, 2017, Assessing Regional Integration in Africa VIII: Bringing the Continental Free Trade Area About, United Nations Economic Commission for Africa, African Union and African Development Bank, Addis Ababa, Ethiopia

World Bank. 2019. *Doing Business 2019: Measuring Regulatory Quality and Efficiency.* Washington, DC: World Bank.

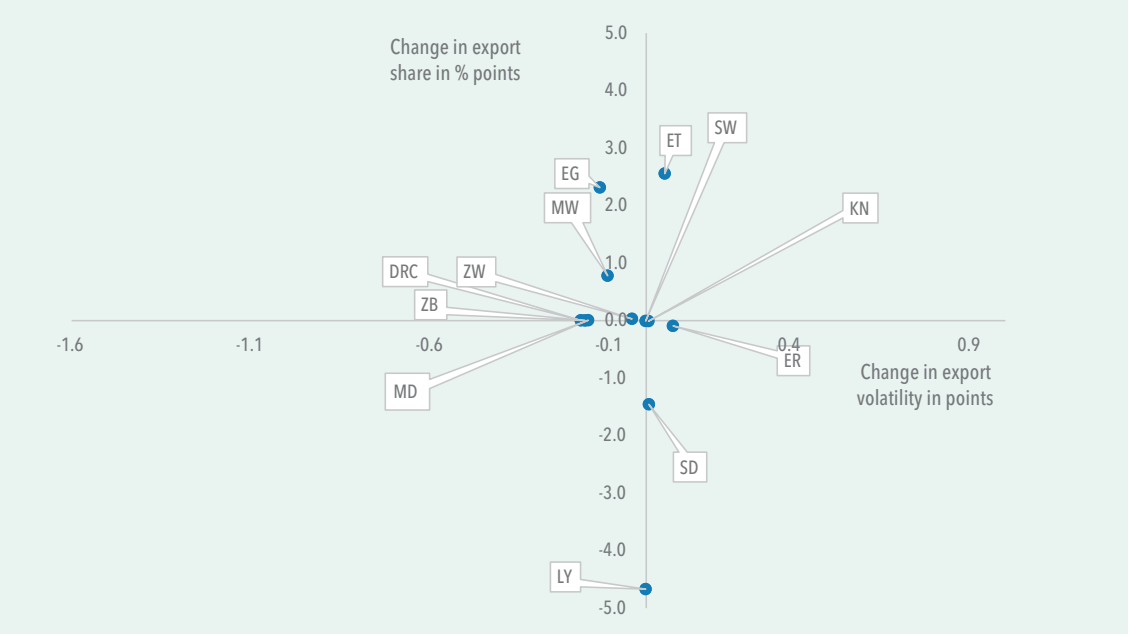
Annex

Table A6.1 Changes in volatility and share of staple exports under alternative scenarios, 2008–2025

	Change in volatility compared to baseline (points)			Change in share compared to baseline (% points)		
	10% reduction in trade cost	Removal of cross-border trade barriers	10% increase in crop yields	10% reduction in trade cost	Removal of cross-border trade barriers	10% increase in crop yields
Egypt	−0.129	−0.020	-0.102	2.315	0.701	0.360
Eritrea	0.075	0.043	0.547	−0.091	0.014	-0.203
Eswatini	−0.002	0.071	-0.016	−0.007	0.001	-0.022
Ethiopia	0.052	0.005	0.125	2.557	0.368	4.261
Kenya	0.006	0.081	0.041	−0.009	0.004	-0.016
Libya	−0.001	0.001	-0.004	−4.669	−0.918	-7.018
Sudan	0.007	0.037	0.020	−1.456	0.453	-2.175
DRC	−0.182	−1.232	-0.730	0.004	0.000	0.006
Madagascar	−0.162	−1.423	-1.695	0.007	0.001	0.005
Malawi	−0.107	−0.757	-0.557	0.781	−0.114	1.876
Zambia	−0.170	−1.464	-1.168	0.002	0.001	0.000
Zimbabwe	−0.039	−0.290	-0.543	0.030	0.003	-0.008

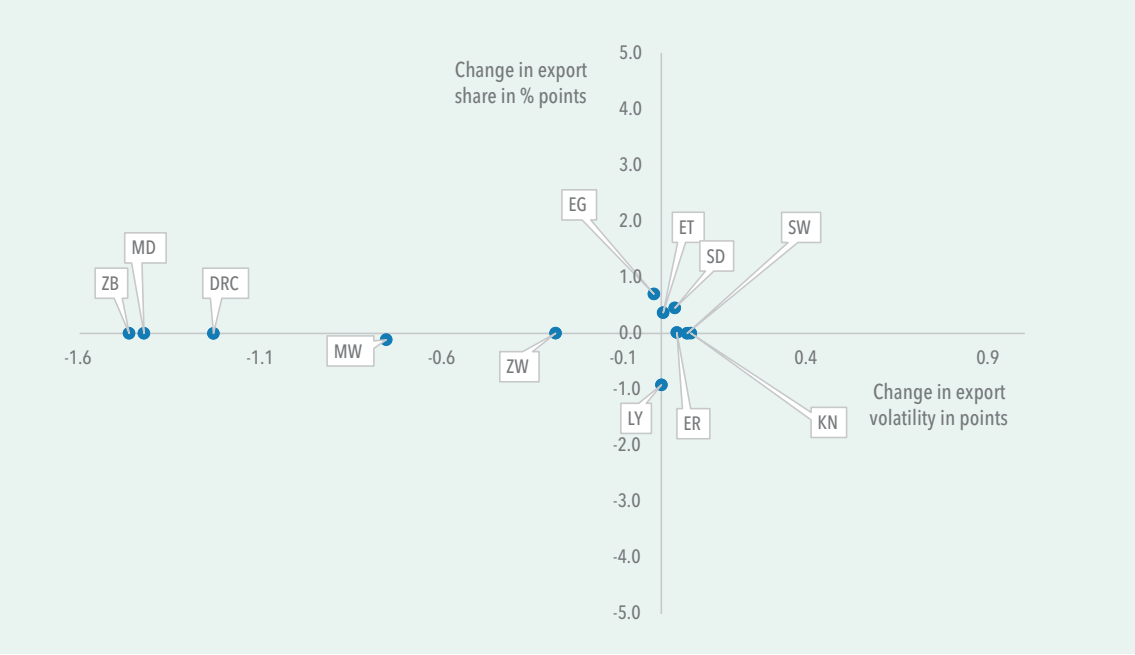
Source: Adapted from Badiane and Odjo, 2016.
Note: DRC = Democratic Republic of the Congo

Figure A6.1 Changes in country export share and volatility under 10% reduction in trade costs compared to baseline



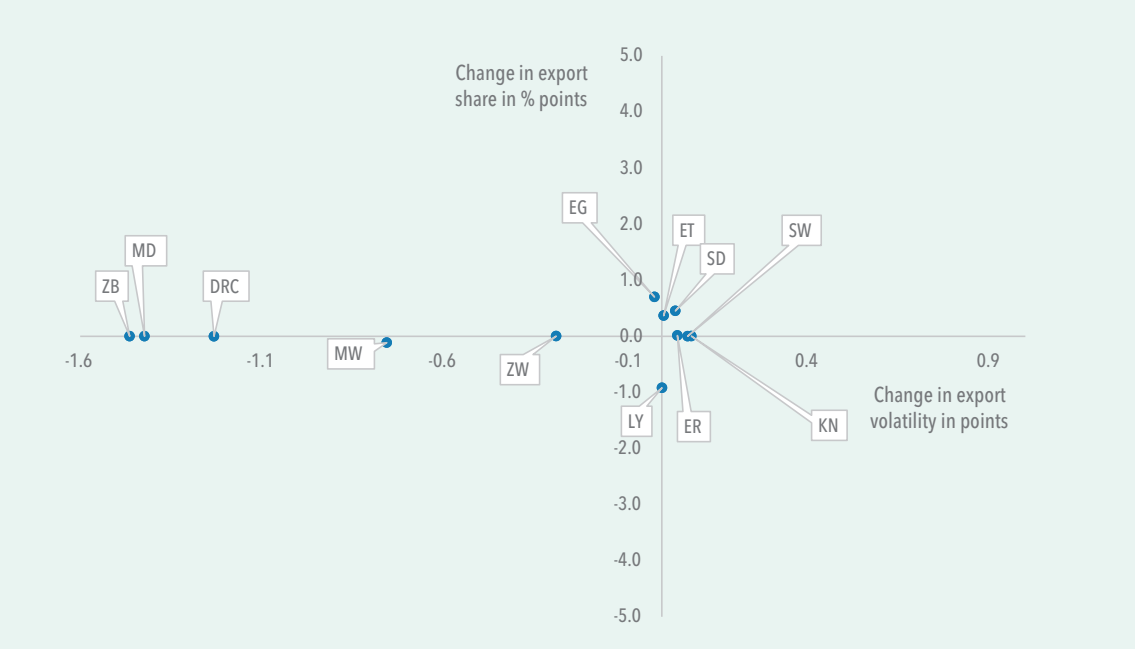
Source: Adapted from Badiane and Odjo, 2016.
Note: EG=Egypt, ER=Eritrea, ET=Ethiopia, KN=Kenya, LY=Libya, SD=Sudan, DRC=Democratic Republic of the Congo, MD=Madagascar, MW=Malawi, SW=Eswatini, ZB=Zambia, ZW=Zimbabwe

Figure A6.2 Changes in country export share and volatility under a removal of cross-border trade barriers compared to baseline



Source: Adapted from Badiane and Odjo, 2016.
Note: EG=Egypt, ER=Eritrea, ET=Ethiopia, KN=Kenya, LY=Libya, SD=Sudan, DRC=Democratic Republic of the Congo, MD=Madagascar, MW=Malawi, SW=Eswatini, ZB=Zambia, ZW=Zimbabwe

Figure A6.3 Changes in country export share and volatility under 10% increase in crop yields compared to baseline



Source: Adapted from Badiane and Odjo, 2016.
Note: EG=Egypt, ER=Eritrea, ET=Ethiopia, KN=Kenya, LY=Libya, SD=Sudan, DRC=Democratic Republic of the Congo, MD=Madagascar, MW=Malawi, SW=Eswatini, ZB=Zambia, ZW=Zimbabwe

Summary and conclusions

This 2019 AATM has assessed the performance of Africa's agricultural trade, explored how effective regional trade arrangements have been in boosting integration and intra-African trade, and evaluated the potential impact of broader integration on the continent's trade performance in the context of emerging protectionism. This chapter summarizes major findings and recommends policy actions that could improve regional integration and boost trade among African countries.

Africa's agricultural trade deficit has been declining since 2012, and the continent's share in global agricultural GDP has been increasing since 1995, as shown in **Chapter 2**. These trends are linked to the fast population and economic growth rates in Africa as compared with the rest of the world. African trade is characterized by a high concentration of exports in a relatively small number of products, generally raw or semi-processed commodities. Although intraregional trade in Africa is admittedly low as a proportion of total trade, especially when compared with other regions, the level of intra-African trade appears relatively high, meaning that African trade is more introverted than extraverted. Chapter 2 demonstrates that the share of intraregional trade in total trade depends not only on trade barriers, but also on geography, economic activity, and other factors. The low intra-African trade share is therefore the result not only of poor integration but also (and especially) of lower GDP levels in Africa. The chapter concludes that non-tariff measures (NTMs) are the main obstacle to improving Africa's trade integration, with administrative barriers playing an important role, while tariff barriers are relatively low.

These findings are confirmed in **Chapter 3**, which investigated Africa's trade from a regional perspective, that is, at the REC level. Across all RECs, low applied tariffs have not significantly boosted intraregional trade due to deficient infrastructure, costly NTMs and implicit behind-the-border barriers to trade. The quality of trade and transport-related infrastructure, including port infrastructure, is below the world average levels across all RECs. Strikingly, NTMs abound in intra-African trade and the extent of NTMs faced in a REC and imposed by countries of the same REC is relatively high. As a result, African RECs face lengthier times to export than their Asian counterparts. Chapter 3 confirms that Africa's agricultural trade is more introverted than extraverted, finding SADC, ECOWAS, ECA and COMESA to be the most introverted, and AMU and ECCAS the least introverted.

Chapter 4 examined the evolution of competitiveness in key commodity value chains in Africa, showing that Africa's comparative advantage in agriculture has strengthened in very recent years. This trend mainly reflects the performance of ECOWAS, SADC, and COMESA rather than that of UMA, CEMAC, or ECCAS. The continent is generally competitive in unprocessed or semi-processed products and not in processed products. Competitiveness is very high in some value chains, such as sesame seeds and legumes and pulses, but comparative advantage is declining in coffee and grapes. The chapter indicates that the increase in African agricultural exports is mainly driven by non-African demand for unprocessed and semi-processed products.

Assessing the likely effects of emerging protectionist threats on Africa's world trade, **Chapter 5** focused on the trade war between the United States and China. Using a global economic model, the chapter finds that the impact on Africa depends on the intensity of the trade war. Clearly, African countries could increase their exports to both the United States and China under a scenario based on the changes in tariffs observed from January 2018 to April 2019. However, total African exports to China would fall under a scenario that reflects the tariff changes observed in China and the United States after April 2019. The chapter further clarifies

that developing countries outside Africa (mainly Asia) are likely to be the main beneficiaries of the new opportunities in the US and Chinese markets. More interestingly, the gains for Africa could be amplified if the continent adopts a proactive strategy that includes deeper regional integration, such as the recently signed African continental free trade agreement. Furthermore, if much of the world were to become more protectionist, African exports would fall significantly, with SACU the most affected region, although intra-continental trade would increase. Deeper integration within Africa would be particularly important in this scenario because, in addition to the trade dispute between China and the United States, there is a clear challenge to multilateralism from the new protectionist US policy.

Chapter 6 focused on regional integration experiences in the Eastern and Southern Africa region. The chapter indicates that the regional trade arrangements that existed in the region between the 1960s and 1993 were created for political rather than economic reasons, as most of the states faced conflicts within and among themselves. These conflicts led to sluggish performance and even the collapse of some RECs, notably EAC and CEPGL, which fell apart in 1977 and 1994, respectively. From 1994 to 2018, the number of RECs in the ESA region grew, with those that collapsed in the previous period being regenerated. Of the established regional trade arrangements, only COMESA, SADC, and SACU have FTA status, and this is only fully operational in the SACU bloc. COMESA launched a customs union in 2009 after acceding to the COMESA-SADC-EAC free trade zone in 2008.

In sum, strengthening regional integration in Africa can bring considerable economic benefits but will require ambitious reforms such as addressing the issue of non-tariff barriers by harmonizing the rules of origin, standards, and product norms across different RECs. It is also crucial to make rules and procedures more transparent on customs websites to reduce the cost created by NTMs and thus lead to easier and more efficient implementation. Only with investment in reform will new regional integration initiatives, such as the AfCFTA or TFTA, be a success in terms of trade integration, growth of economic activity, development, and poverty reduction.