

Chapter 1

Africa's productive transformation in a changing world

This chapter analyses how public policies can support African firms' productive transformation. It first explains why productive transformation matters for the continent's development agenda. Second, the chapter proposes three main sets of policies to accelerate productive transformation in a fast-changing world. The first set consists of developing clusters of firms. Successful clusters enable local firms to specialise and scale up their production. The second set of policies aims to develop regional production networks. Governments can strengthen regional public goods, like cross-regional infrastructure and institutions, as well as regional complementarities in value chains. The third set focuses on increasing African firms' capacity to thrive in export markets. Exports will become ever more important as African governments implement the Continental Free Trade Area. The chapter highlights innovative practices on the continent relevant to African policy makers at local, national, regional and continental levels.

BRIEF IN

Africa's growth is projected at 3.6% in 2019. Domestic demand is growing at 6.7% and is shifting towards processed goods. These developments are creating opportunities that many firms are seizing in order to expand across the continent.

However, most African firms are less productive than their global competitors. The Africa-to-Asia labour productivity ratio decreased from 67% in 2000 to 50% in 2018. In some African countries, almost 91% of the non-agricultural workforce remains in informal employment.

Three sets of policies can help transform Africa's production structure. This is especially important for the young, small enterprises responsible for 22% of net job creation:

- First, governments must ensure that **clusters of firms** have access to business services. Africa's private sector is diverse; it includes dynamic "champions", stable corporations, small growing businesses, and livelihood-sustaining and informal firms. Successful clusters improve linkages, specialisation and skills. Firms that have moved into the Kigali Special Economic Zone have doubled their value added. Clusters require developing comparative advantage involving investors and local governments and strengthening the existing ecosystems for firms. Hence, 49% of African start-ups are concentrated in five cities: Cape Town, Lagos, Johannesburg, Nairobi and Cairo.
- Second, policies must strengthen **regional production networks**. Regional sourcing remains under 15%. Countries can better co-ordinate their strategies regionally: 49% of the sectors that new industrialisation strategies target currently overlap. Regional norms help smallholders integrate into regional value chains, particularly in agriculture which accounts for 50% of all employment. Co-ordinating strategies for foreign direct investment will attract investors, develop regional capabilities and avoid undercutting taxes.
- Third, policies are needed to help African exporters thrive. Only 18% of new exporters survive beyond three years. **Export strategies** must better target different markets. African firms' exports to intra-African markets are 4.5 times more diverse than those to extra-African markets but have a value 8.5 times lower than exports to China. Removing non-tariff barriers reduces uncertainties for exporters and may increase fivefold the gains from tariff removal. Exporters need simpler administrative procedures and better connectivity and infrastructure, especially flights, roads and ports. Exporters must meet quality standards: despite tripling ISO certifications since 2000, African countries filed for as many certifications as Malaysia in 2015.

Africa's productive transformation in a changing world

Growth

Africa's growth is projected to accelerate in 2019



Productivity

Overall productivity is not catching up

Africa-to-Asia labour productivity ratio

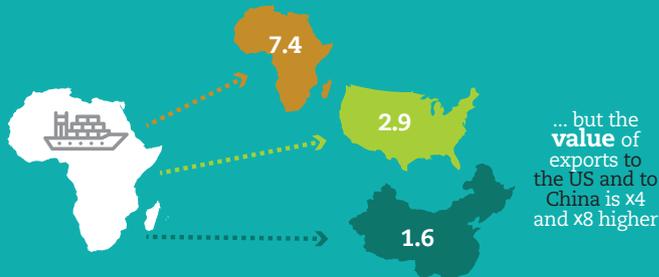


Africa's labour productivity as a % of the US's level remained constant between 2000 and 2018



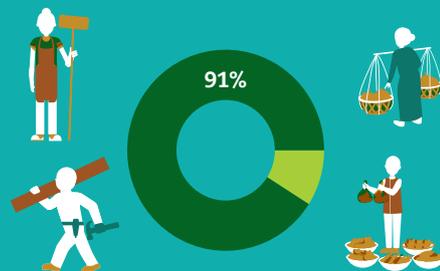
Trade

On average, African firms export a wider range of products to the continent than globally...



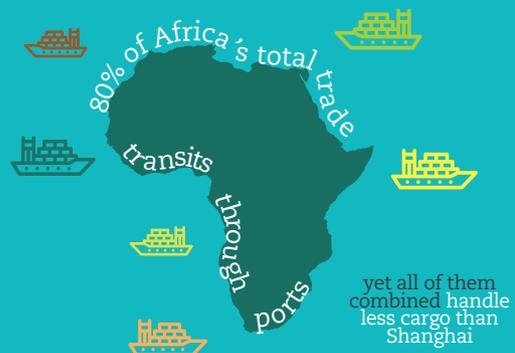
Informality

In several countries, most of the non-agricultural workforce remains in informal employment



Improving connective infrastructure can reduce costs for Africa's firms

Africa has the world's highest maintenance costs for road and rail networks



Indicators of productive transformation: Africa in the global economy

Table 1.1. Capabilities for productive transformation in Africa, Asia, and Latin America and the Caribbean, 2000 and 2018

		Africa		Asia		LAC		
		2000	2018*	2000	2018*	2000	2018*	
Production technology	Employers and paid employees and as % of total employment	ILO	29.0	31.8	34.6	45.7	62.7	66.1
	Labour productivity as % of United States productivity	CB	12.5	12.1	18.6	24.4	27.1	22.8
	Private gross fixed capital formation as % of gross domestic product (GDP)	IMF	13.5	15.9	14.5	23.7	16.3	16.7
	Capacity for innovation, 0-100 (best)	WEF	-	29.0	-	36.7	-	32.8
Regional network	Intra-region as % of trade in intermediate goods	Comtrade	11.0	11.9	17.1	28.3	8.1	10.2
	Intra-region as % of greenfield foreign direct investment inflows	fDi	-	6.8	-	50.1	-	13.8
	Venture capital availability, 1-7 (best)	Markets WEF	-	2.5	-	3.2	-	2.6
Capacity to meet demands	Share of world's total ISO9001 certification (%)	ISO	1.2	1.1	10.6	44.6	2.0	3.2
	Fully- and semi-processed goods as % of region's total goods export	Comtrade	44.1	51.3	82.8	89.9	75.5	72.4
	Share of world total consumption goods import (%)	Comtrade	2.0	2.9	4.2	11.3	4.7	4.5

Notes: * 2018 or most recent year. Asia and Latin America and the Caribbean (LAC) include lower- and middle-income countries only. ILO – International Labour Organization, CB – The Conference Board, IMF – International Monetary Fund, WEF – World Economic Forum, ISO – International Standards Organization.

Sources: Authors' calculations based on data from The Conference Board (2019), *Total Economy* (database); fDi Markets (2019), *fDi Markets* (database); ILO (2019), *Key Indicators of the Labour Market* (database); IMF (2019), *World Economic Outlook* (database); ISO (2018), *The ISO Survey of Management System Standard Certifications* (database); United Nations Statistics Division (2018), *UN Comtrade* (database); and WEF (2018), *Global Competitiveness Report*.

Figure 1.1. Growth dynamics in Africa, Asia, and Latin America and the Caribbean, 1990-2020



Source: Authors' calculations based on IMF (2019), *World Economic Outlook* (database).

StatLink <https://doi.org/10.1787/888933966789>

Table 1.2. Financial flows and tax revenues to Africa and private savings (current USD, billion), 2000-17

		Average 2000-04	Average 2005-09	2010	2011	2012	2013	2014	2015	2016	2017
External financial inflows	Foreign direct investment	16.1	46.0	46.7	46.7	52.0	50.8	52.4	56.6	53.2	41.8
	Private Portfolio investments	1.8	10.4	36.8	23.2	37.6	33.7	30.2	20.8	5.9	46.0
	Remittances	14.2	41.9	54.7	61.7	66.8	65.9	70.2	70.0	66.9	74.4
Public	Official development assistance	20.5	38.8	42.8	46.5	46.4	52.0	47.9	44.9	44.1	47.0
	Total foreign inflows	12.1	25.9	52.5	137.1	181.0	178.2	202.8	202.4	200.7	192.4
Tax revenues		44.4	104.4	118.6	266.9	330.3	403.2	417.7	414.5	408.8	339.5
Private savings		35.4	76.8	130.8	299.1	423.5	448.5	475.0	508.0	516.2	427.3

Sources: Authors' calculations based on IMF (2019), *World Economic Outlook* (database), OECD-DAC (2018a), *International Development Statistics* (database), OECD-DAC (2018b), *Country Programmable Aid*, and World Bank (2018a), *World Development Indicators* (database).

What is productive transformation, and why does it matter for Africa?

Accelerating the development of Africa's productive sector is critical to meet the continent's objectives laid out in the African Union's Agenda 2063. What countries produce and trade determines overall development outcomes and shapes the capacity of economic systems to generate and redistribute wealth (Hausmann, Hwang and Rodrik, 2007; Primi, 2016).

What is productive transformation?

Productive transformation is the process of accumulating and diffusing organisational, production and technological capabilities within an economy. During this process, the economy increases its productivity to catch up with higher-performing economies. At the same time, resources and workers move from activities with low-knowledge content to the newly created activities with higher-knowledge content. Increasing productivity and developing new activities through improving firm- and economy-wide capabilities is crucial to unlock stronger growth, create more and better jobs, and reduce inequalities.

No unique model of country-level transformation exists. The pathways of productive transformation depend on many factors, which play out differently in diverse countries and sectors and according to varying historic and global economic contexts. Today's fast-changing world offers opportunities for policy makers to drive countries' transformation through various policy approaches (Nübler, 2014; AfDB/OECD/UNDP, 2017; see Annex 1.A1). This process can be measured in different ways at the firm and country levels (Box 1.1). Here are two examples:

- **Morocco** expanded its production to new activities during the 2000s, such as aeronautics, the automotive industry, electrical equipment and off-shoring. It did so by taking advantage of its geographical proximity to European Union markets and investors, of existing trade agreements and of its relative political stability.
- Since 2004, **Ethiopia** has taken advantage of new opportunities emerging in global markets to increase the value added from its coffee production. The Ethiopian government launched the Ethiopian Coffee Trademarking and Licensing Initiative, which uses a range of intellectual property rights to differentiate "The Ethiopian Fine Coffee". The brand is run by a stakeholder committee made up of co-operatives and private exporting companies, in partnership with the Ethiopian Intellectual Property Office and other government bodies.

Sustaining the productive transformation process requires strengthening the density and variety of firms in the production networks, and activating their capabilities to upgrade and their potential to learn from each other.

At the firm level, productive transformation is the process of accumulating and diffusing new capabilities to perform certain tasks. Two examples are:

- The **MeTL Group** (Mohammed Enterprises Tanzania Limited) is a diversified conglomerate in Tanzania that employs 24 000 workers and is Tanzania's largest private sector employer. The firm's move from trading to industrial processing came in 1998. At that time, it established new ventures and acquired enterprises in agribusiness and manufacturing (see Annex 1.A1).
- The **OCP** (*Office chérifien du phosphate*) in Morocco has generated several spillover effects since 2006, by strengthening agricultural productivity, and the chemical industry, integrating Moroccan businesses into their upstream activities and developing local skills. The OCP became a limited company in 2008 (see Annex 1.A1).

Box 1.1. Measuring productive transformation

Productive transformation is multi-faceted. Measuring its wide-ranging implications for production, trade, employment and social development requires using multiple indicators. In theory, productive transformation can be measured by an economy's progress in creating and diffusing new capabilities for organisation, production and technology.

- The **structural change** perspective analyses productive transformation through the patterns of changes in sectoral inputs and outputs (e.g. Hausmann and Klinger, 2006; Hausmann and Hidalgo, 2011; Lin and Monga, 2010).
- The increase in **global value chains** (GVCs) has a significant impact on ways countries can drive structural change (e.g. Gereffi, 1999; Udo and Bruce, 1995; Borrus, Ernst and Haggard, 2000; Humphrey J. and Schmitz H., 2010; Martin and Rafiq, 2003; Dean J, Fung KC and Wang Zhi, 2007; Escaith, Lindenberg and Miroudot, 2010; Cattaneo, Gereffi and Staritz, 2010; Baldwin, 2011).
- Another strand of the literature, the **process perspective**, tries to understand how the economic outcomes endure over the long run. It discusses capabilities as the determinant of the behaviour of firms and the ability of economies to perform tasks such as co-ordinating, investing, innovating, identifying and solving problems, and learning (Chang, 2010; Dosi, Nelson and Winter, 2000; Lall, 1992; Lall, 2000; Nelson, 2008; Nelson and Winter, 1982; Sutton, 2012; Teece, Pisano and Shue, 1997).

In practice, such studies may benefit from a battery of analysis at both country and firm levels. The dearth of data, concerns over quality of statistics and the prevalence of the informal sector in Africa call for a combination of analytical tools at the level of countries and firms.

At the **country level**, the analysis often employs three types of indicators:

1. **Diversification into new products.** This, along with higher value-added activities, can be measured by trade-based indicators such as the Export Complexity Index and Revealed Comparative Advantage Indices (Balassa, 1965; Hausmann, Hwang and Rodrik, 2007). More recently, databases using multi-country input-output tables such as the OECD-WTO Trade in Value-Added database, the World Input-Output Database, UNCTAD-EORA and the Global Trade Analysis Project allow the tracking of countries' participation in global value chains.
2. **Technological upgrading** through growth accounting exercises, sectoral productivity by using databases such as the Conference Board Total Economy Database, the UNIDO INDSTAT and analysis of the technological level of exports (see for example Lall, 2000).
3. **Creation of better-paying jobs in the economy.** This includes the analysis of sectoral reallocation across sectors (see for example McMillan, Dani and Verduzco-Gallo, 2014; de Vries and Timmer, 2015).

At the **firm level**, the ability to switch to a new product or a new business model or to adopt new technologies from the global product and technology space is critical (Nübler, 2014).

Metrics of performance could examine: i) how good the existing firms are at developing new products, at introducing them to markets and at tapping new export markets; and ii) how competitive firms are in meeting social, environmental and quality standards.

Box 1.1. Measuring productive transformation (cont.)

Firm-level surveys can help evaluate the adoption of information and communication technology (ICT). Firm censuses help understand firm survival and growth dynamics. Administrative data such as fiscal data, customs transaction and patent registration can provide an accurate picture of firms' productivity and innovation dynamics.

In Africa, firm-level data remains limited for cross-country analysis and informed policy making. Industrial censuses of firms are irregular in African countries, with the exception of Ethiopia, Ghana and South Africa. The World Bank's Enterprise Surveys are the most popular internationally comparable set of surveys to understand firms' characteristics in Africa. However, self-evaluated responses often overestimate innovation (Cirera and Muzi, 2016) and make productivity estimates less reliable. More recent initiatives have unlocked new sources of administrative data on firms. For example, the Exporter's Dynamic Database has enabled analysis of trade at export level. However, country coverage remains limited and the level of aggregation high for most countries.

Source: Authors' compilation from the literature review.

Why does productive transformation matter for Africa's development agenda?

Accelerating the development of Africa's productive sectors is critical to meet the continent's objectives laid out in several on-going pan-African initiatives. The African Union through Agenda 2063 envisions transforming the structure of African countries' economies in order to create strong, robust and inclusive growth, generating jobs and opportunities for all. In addition to the pan-African initiatives already mentioned, others emphasise the importance of industrialisation for a sustainable economic transformation: i) African Union Action Plan for the Accelerated Industrial Development of Africa; ii) African Productive Capacity Initiative; iii) Science, Technology and Innovation Strategy for Africa 2024; iv) Africa Mining Vision; and v) African Agribusiness and Agro-industries Development Initiative. The United Nations General Assembly also proclaimed the period 2016-25 as the Third industrial development decade for Africa.

This pan-African vision requires providing more and better-paying jobs. Africa's gross domestic product (GDP) expansion since the 2000s has not created enough quality jobs and well-being for the population. The continent needs to create jobs for 29 million youth entering the working-age population every year between today and 2030. By comparison, they were 14 million new entrants per year between 2000 and 2015. Additionally, 282 million workers are in vulnerable employment today, and 30% of workers remain poor despite working.

The scale and the cross-cutting nature of the challenges for African firms call for co-ordinated policies within African governments. For example, an infrastructure gap estimated at up to USD 108 billion a year remains a major impediment to private sector development in Africa (AfDB, 2019). Closing this gap requires sustained and long-term solutions, including common approaches to domestic resource mobilisation (see Box 1.2). Successful approaches are inclusive and enjoy strong participation and ownership by national, regional and local actors. The success of such strategies also depends on the transformative leadership from both public and private actors and requires strengthening the capacity of both sectors (ACBF, 2019).¹

Table 1.3. Ten ongoing continental initiatives for Africa's industrialisation

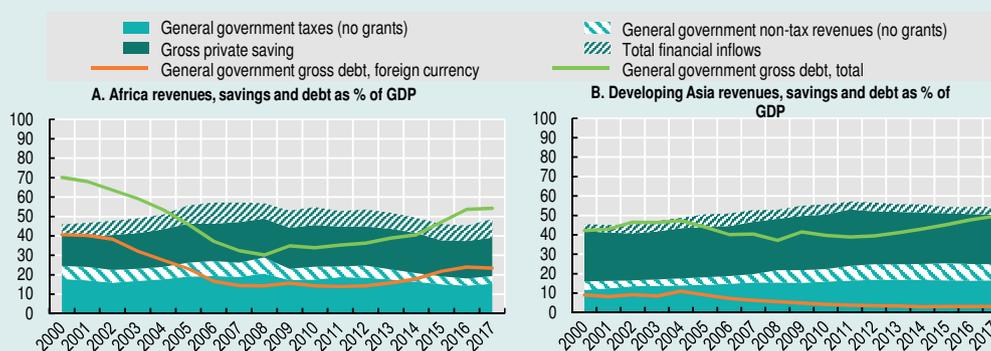
Ongoing continental initiatives (list not exhaustive)	Key institutions	Timeframe
1 Agenda 2063 Aspiration 1: "A Prosperous Africa Based on Inclusive Growth and Sustainable Development"	AUC	2013-ongoing
2 AU Action Plan for the accelerated industrial development of Africa (AIDA)	AUC	2008-ongoing
3 Boosting Intra-African Trade (BIAT) Cluster III – Productive Capacity	AUC, ECA	2012-ongoing
4 The United Nations Third Industrial Development Decade for Africa (IDDA III)	UNIDO	2016-25
5 Programme for infrastructure development in Africa (PIDA)	AUC, NEPAD, AfDB, ECA	2012-40
6 The Science, Technology and Innovation Strategy for Africa 2024 (STISA)	AUC	2014-24
7 The African Agribusiness and Agro-industries Development Initiative (3ADI)	FAO, IFAD, UNIDO	2010-20
8 Comprehensive Africa Agriculture Development Programme (CAADP)	AUC, NEPAD	2003-ongoing
9 The Africa Mining Vision	AUC	2009-ongoing
10 The African Productive Capacity Initiative (APCI)	UNIDO	2003-ongoing

Note: AUC – African Union Commission; ECA – United Nations Economic Commission for Africa; UNIDO – United Nations Industrial Development Organization; NEPAD – New Economic Partnership for Africa's Development; AfDB – African Development Bank; FAO – United Nations Food and Agriculture Organization; IFAD – International Fund for Agricultural Development.

Box 1.2. Resource mobilisation for productive transformation

Public spending on its own can hardly sustain productive investment and capital accumulation in the medium term. The number of low-income countries in debt distress or facing a high risk of it increased from 7 in 2013 to 16 in 2018 (IMF, 2019b). African countries are far more likely to borrow funds in a foreign currency than Asian countries, which could heighten this risk (see Figure 1.2). In the case of sub-Saharan Africa, for example, the share of total public debt denominated in a foreign currency increased from an average of 23% of GDP in 2011-13 to 32% in 2017 (IMF, 2018). The share of Africa's debts held by private banks and bondholders has also increased, while the relatively shorter maturities and higher interest rates of these debts may not match the needs of long-term project financing (Coulibaly, Dhruv and Lemma, 2019). Maintaining Africa's growth momentum will require mobilising sources other than government debt, notably domestic savings and remittances, to encourage investment in activities that increase productivity and create jobs (AUC/OECD, 2018).

Figure 1.2. African countries' higher reliance on foreign currency debt makes them more vulnerable to debt distress than Asian countries



Source: Authors' calculations based on IMF (2019a), World Economic Outlook (database).
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Box 1.2. Resource mobilisation for productive transformation (cont.)

Governments need to reduce their financial exposure to external shocks. African governments can simultaneously raise public revenues and encourage private sector growth if they pursue tax policies consistent with productive transformation. Such policies will find a **balance between increasing tax collection and having a positive impact on the business environment.**

- African countries generally have relied heavily on value added tax (VAT) reforms to increase their tax levels. For the 21 countries featured in *Revenue Statistics in Africa 2018*, increases in VAT revenues on average accounted for 32% of total increases in tax revenues from 2006 to 2016, and in the case of Morocco, 93% (OECD/ATAF/AUC, 2018). However, as Zambia has concluded, adopting VATs might not always be worthwhile. VAT reforms require a tax regime that has the capacity to process refunds in a timely manner and prevent fraud.
- More focus on land value mobilisation is needed. Taxes on land values are desirable for growth, given Africa's projected urban population growth of about 3.2% between 2015 and 2050. However, taxes on land values require a clear distinction between traditional, public and private property rights to ensure certainty and avoid contestation. Land taxes might be more successful if they were simplified, for example by basing them on land area, rather than land value. South Africa started using computer-assisted mass-appraisals for more efficient property valuations and land taxes. Improving land administration can also have benefits beyond tax collection. In Ethiopia and Rwanda, certifying ownership of agricultural land increased land productivity and the propensity to invest (AUC/OECD, 2018). In Burkina Faso, a project using very high spatial resolution satellite images produced detailed territorial mapping. Sierra Leone's expansion of property tax led to the creation of geographic information system mapping, which helped improve state governance capacity (Moore, Pritchard and Fjeldstad, 2018).
- Providing incentives for businesses and individuals to register with the government, thereby improving public records, can improve data gathering. For example, many small and micro-enterprises that made use of South Africa's Business Linkage Centres to obtain contracts and work with large corporations began as informal businesses and then formalised later. The South African Revenue Service decreased compliance costs by 22.4% after introducing e-filing. The Kenya Revenue Authority's iTax system, gradually introduced between 2005 and 2010, now provides automated administration of all domestic taxes and allows taxpayers to declare and pay their taxes online. Rwanda, in 2013, and Kenya, in 2014, also introduced mobile payment of taxes through their M-Service platforms.
- Governments can also inform tax policy by upgrading the statistical system on the informal sector (OECD/ILO, 2019).
- Better communication between tax administrators and taxpayers will improve tax performance. Communication can ensure not only that tax policies are informed by adequate consultation, but also that businesses and individuals feel a shared interest in taxation to fund national development goals of benefit to all.

African countries would benefit from better statistics, information and experience sharing. Pooling resources and co-operating can help identify best tax practices, find efficiency gains and design strategies to tax international commerce.

Box 1.2. Resource mobilisation for productive transformation (cont.)

- International co-operation has led to more detailed and comprehensive revenue statistics, such as in the *Revenue Statistics in Africa* publication (OECD/ATAF/AUC, 2018) or in the *African Tax Outlook* (ATAF, 2018).
- Co-operation at the regional level could help better identify perversities in individual tax systems, such as the nearly 400 tariff lines in the East African Community misclassified as finished goods. The Economic Community of West African States has harmonised their import tariffs and VAT standards to reduce incentives for economically damaging tax arbitrage.
- Currently, 23 African countries participate in the Inclusive Framework on Base Erosion and Profit Shifting, and 23 countries attended the Fifth Global Forum on VAT in March 2019.
- Illicit financial flows (IFF) are estimated at about USD 50 billion a year. The diversity and complexity of IFFs call for a cross-cutting strategy encompassing various actors at national, regional and international levels which addresses the root causes. African governments can take advantage of regional and international initiatives to increase their capacity to fight IFFs (AUC et al., forthcoming).

Countries can leverage private domestic savings and diaspora remittances for domestic investment. Several policies exist:

- Policy makers and financial institutions work towards locking in the domestic savings in longer-term assets and utilise them to provide more credit without adding pressure to balance sheets.
- Morocco has attracted investment from its diaspora. Likewise, Ethiopia, Ghana, Mauritius and Nigeria set up diaspora schemes to facilitate diaspora investment in the country.

Sources: ATAF (2018), *African Tax Outlook 2018*; AUC et al. (forthcoming), "Mobilisation of Domestic Resources: Fighting against Corruption and Illicit Financial Flows"; AUC/OECD (2018), *Africa's Development Dynamics 2018: Growth, Jobs and Inequalities*; Coulibaly, Dhruv and Lemma (2019), "Is sub-Saharan Africa facing another systemic sovereign debt crisis?"; IMF (2019), *Regional Economic Outlook: Sub-Saharan Africa, Recovery Amid Elevated Uncertainty*; IMF (2018), *Regional Economic Outlook: Sub-Saharan Africa, Capital Flows and the Future of Work*; Moore, Pritchard and Fjeldstad (2018) *Taxing Africa: Coercion, Reform and Development*; OECD/ATAF/AUC (2018), *Revenue Statistics in Africa 2018*; OECD/ILO (2019), *Tackling Vulnerability in the Informal Economy*.

Which policies can accelerate productive transformation in today's fast-changing context?

Africa's transformation agenda is taking place in a fast-changing and uncertain global environment, which calls for innovative policy approaches. The future of productivity and drivers of competitiveness in Africa may differ from the experience of East Asian countries that industrialised through expansion of the manufacturing sector. Industrialisation can no longer be envisioned through the sole growth of the manufacturing sector, because manufacturing increasingly depends on services and other sectors (OECD, 2013; AfDB/OECD/UNDP, 2017; Hallward-Driemeier and Nayyar, 2018). Globally, between 25% and 60% of employment in manufacturing firms is found in services support functions, such as transport and logistics marketing, after-sales services, and information technology

back-office support (Miroudot and Cadestin, 2017). Climate change is also reshaping requirements and opportunities within the global production landscape.

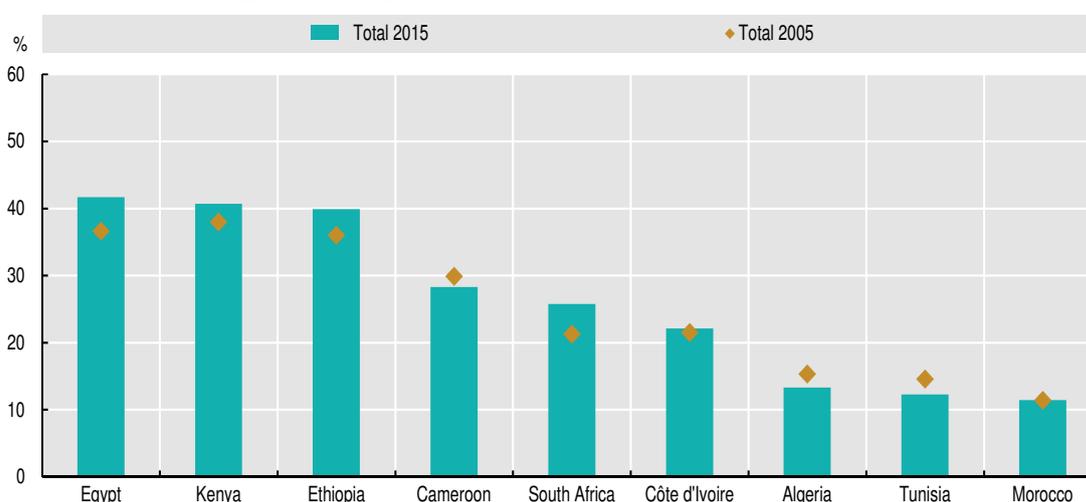
The continent is changing fast, differing from experiences elsewhere. The combination of Africa's demographic revolution, spatial transformation, rapid urban transition, and regional integration bring unique challenges and opportunities for policies and firms. These changes offer new sources of finance, new markets and demand patterns, and new possibilities for "leapfrogging" by using novel opportunities for technology transfer and business management practices. They also bring demand for better job creation, new competitors, and new risks to inclusive growth and the environment. Such a highly evolving policy environment means that the continent may learn from, but not repeat, what other countries did in the past.

Africa's productive transformation policies need to go beyond the previous industrialisation agenda of supporting manufacturing activities or industrial sectors. They need to cover other productive activities such as modern agriculture and services, taking stock of the African specificities and the fast-changing global context. Africa is embracing broader policy tools such as supporting innovation activities, developing business clusters and boosting integration into global and regional value chains. The complexity of supporting productive transformation requires a systemic strategy beyond the agenda of removing market failures for production and service delivery. This agenda differs from past policies of "picking winners". The current doing-business environment agenda is important, but it will not suffice to transform the continent's production. Africa's current place behind other developing countries' productivity also owes to weak firm management practices and limited industrial linkages, which are not directly related to the business environment (AUC/OECD, 2018). Policies need to improve African firms' capability, notably their capacity to adapt to changing market conditions and anticipate future trends (Primi, 2016).

- **Policies for productive transformation in Africa need take into account these changing contexts and the local economic structure and institutional capacity.** Africa's private sector today is a mix of successful "champions", promising start-ups, and a diverse continuum of smaller businesses. About 22% of Africa's working-age population are starting new businesses, the highest rate in the world (AfDB/OECD/UNDP, 2017), compared to 19% for Latin American countries and 13% for developing countries in Asia. At the same time, the largest share (55%) of Africa's entrepreneurs is now working in non-tradable services. About a third of young entrepreneurs start a business out of necessity rather than because of a clear business idea (AfDB/OECD/UNDP, 2017).
- **Governments should focus on strategic value chains, not only manufacturing.** Countries need to upgrade their service sectors to boost their manufacturing, mining or agricultural sectors. Services play an important role in value addition. Services counted for 40-42% of the value addition in these sectors in 2015 in Ethiopia, Egypt and Kenya (Figure 1.3), followed by Cameroon, South Africa, and Côte d'Ivoire (in that order). The success of industrial strategies may depend on supporting services such as ICT, marketing and transport, and distribution.
- **"Leapfrogging" opportunities in the global technology landscape can build new competitive edges.** The decreasing prices of renewable energy make a new business case for bridging Africa's infrastructure gap with greener energy. Africa's resource-rich countries could also use the changes in the technological landscape as a leveller for green innovation, for instance in the mining sector (Alova, 2018):

- First, greening extraction techniques can enhance competitiveness in the mining sector and the rest of the economy (e.g. the OCP in Morocco, South Africa Industrial Energy Efficiency Project).
- Second, the revenues from green innovation can help firms enter new value chains for clean manufacturing (e.g. waste management by Africa Global Recycling Company in Togo). The experience of Chile is illustrative (OECD/UN, 2018). Chile strategically reinvests its lithium and copper revenues to fund the research and development of low-carbon technology over the following ten years. The country aims to become a global hub for clean mining technology by investing in electro mobility, solar energy and low emission mining through a consortium of universities, local firms and global companies.

Figure 1.3. Services value-added contents in total export of manufacturing, mining and agricultural products in nine African countries



Note: Total export of “manufacturing, mining and agricultural products” defined as ISIC codes D01 to 03 (agriculture) + codes D05 to 09 (mining) + codes D10 to 33 (manufacturing).

Source: Authors' calculations of preliminary results based on the underlying data sources of OECD Inter-Country Input Output System for the 2018 TiVA indicators.

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This chapter proposes fresh policy for productive transformation by focusing on: i) **clusters of firms** where governments need to provide business services to firms in order to improve specialisation, linkages and skills; ii) **production networks** by strengthening regional value chains, developing regional norms and co-ordinating investment; and iii) **firms' access to markets**. The first section identifies policy interventions to help different kinds of firms upgrade their capabilities by innovating, by attracting and spreading new capabilities, and by specialising. The second section shows how national and regional policies can work together to create opportunities for SMEs to thrive in regional value chains. The last section highlights policy options to enhance productive firms' access to the continent's growing local and regional markets, as well as global markets. It recommends targeting different local and exports markets, streamlining administration and logistics in the medium term and upgrading infrastructure in the longer term.

Focus on clusters of firms: provide business services to improve specialisation, linkages and skills

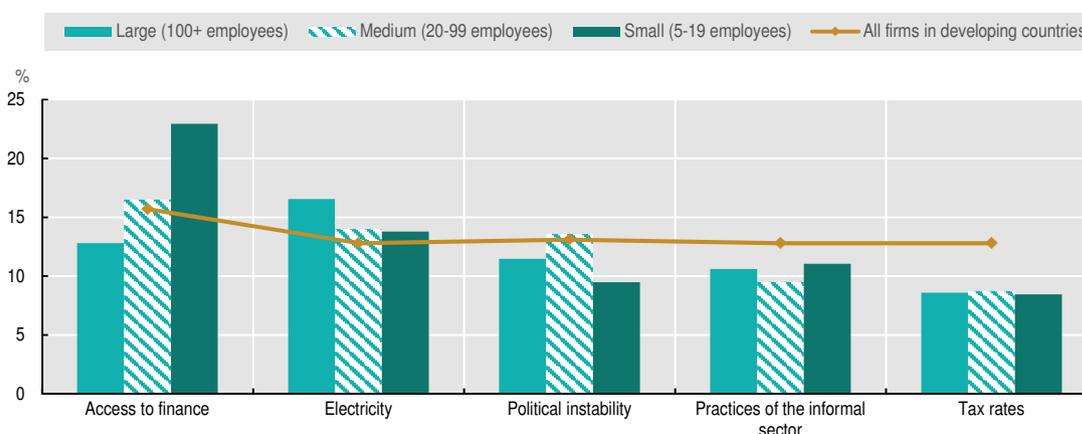
Boosting firms' capabilities is key to Africa's productive transformation. Among other things, strengthening the production systems requires more and better linked firms. Policy can accelerate productivity growth and job creation by:

- **encouraging strategic clusters:** develop strategic sectors by building on local assets, facilitating linkage among firms and providing business services
- **removing constraints for small growing businesses:** help different kinds of African SMEs build new niches, grow and create jobs using a tailored approach
- **addressing the new skill demands:** develop stronger public-private alliances, encourage innovative training methods and foster intra-Africa talent mobility.

Lagging productivity levels and slow total factor productivity gains are challenges when competing on global markets. The Africa-to-Asia ratio of labour productivity has decreased since 2000. The widening labour productivity gap is more pronounced in agriculture, but it is also occurring in market services such as transport, financial activities, construction and manufacturing (AUC/OECD, 2018). Closing this gap requires sustained and long-term solutions, while the current doing-business environment agenda is too short-sighted.

As the challenges are huge, governments need to prioritise policies beyond the usual Doing Business reforms. Beyond the basic constraints related to doing business, several firm-level factors prevent African firms from innovating and scaling up. African firms still face many constraints related to finance, infrastructure, tax administration and skilled labour (Figure 1.4). Addressing these basic constraints would require long-term commitments to sustained investment in infrastructure and skills – which this chapter will show later. At the same time, firms' management methods and the personal circumstances of owners and managers greatly affect the firms' survival and growth (Bloom and Van Reenen, 2010; Davies and Kerr, 2018). A study of entrepreneurs in Côte d'Ivoire, Madagascar, Peru and Viet Nam reveals that most firms lack basic capabilities: doing basic bookkeeping, laying out a plant, using tools to plan over a multiyear horizon, identifying a relevant technological advance and cultivating human resources (OECD, 2017a). In addition, African firms tend to be smaller than firms in other regions of the world: about 60% of the size gap between African firms and those in other developing countries remains unexplained even after controlling for the business environment, firms' age, ownership, and markets size (Iacovone, Ramachandran and Schmidt, 2013).

Figure 1.4. Top five constraints to doing business globally and in developing countries, by firm size



Source: World Bank (2019b), World Bank Enterprise Surveys (database).
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This section proposes three sets of measures that can boost firms' capability to compete today and to thrive in the future. These measures would complement the ongoing doing-business reforms:

- *carry out strategic cluster policies*: develop strategic sectors by building on local assets, facilitating linkage among firms and providing business services
- *unlock constraints for small, growing businesses*: use a tailored approach to help different kinds of African SMEs build new niches, grow and create jobs
- *address the new skill demands*: develop stronger public-private alliances, encourage innovative training methods and foster intra-Africa talent mobility.

Policies need to strengthen existing clusters to create linkages between firms and diffuse technologies and business innovation

Productivity policies should not only focus on the leading big firms. The weak linkages among African firms limit the diffusion of innovations from lead firms to the others, due to the large size of the informal economy. Benefits from public investment in African "champions" may not spread economy-wide productivity gains. Moreover, these leading firms only account for only a small proportion of formal employment on the continent. Given the large size of the incoming youth population, governments should ensure inclusive growth by helping African SMEs to create more and better jobs.

Improving Africa's productive systems requires accumulating and spreading new capabilities across different types of firms. Usually, larger firms are better positioned than SMEs to accelerate productivity growth – particularly as they drive most export growth (McKinsey, 2018; Goswami, Medvedev and Olafsen, 2018; UNDP, 2018). However, their overall improvement on the economy depends on the productivity of other firms. The general performance of African firms is heterogeneous across the categories of innovation outcomes:

- Product and process innovations exhibit the most important gaps between African firms and their global competitors, for example in India (Table 1.4). They are slightly more innovative in organisation and marketing. Firms that engage in R&D are more likely to introduce any type of innovation.
- Africa's gross domestic expenditure on research and experimental development (GERD) as a percentage of GDP is at 0.45%, far below the 1% current target for African Union member countries. By comparison, the world's GERD is at 1.3% (UNESCO, 2019).

Table 1.4. Innovation rates in ten African countries and India

	Product	Process	Product or process	Organisation	Marketing
Nigeria	13.8%	29.6%	37.1%	47.1%	51.6%
Ghana	17.1%	25.3%	36.3%	30.5%	51.9%
Kenya	25.4%	26.4%	43.8%	35.9%	39.0%
Africa average (ten countries)	27.2%	30.7%	46.5%	40.6%	46.1%
India	58.1%	66.2%	91.1%	55.1%	63.8%

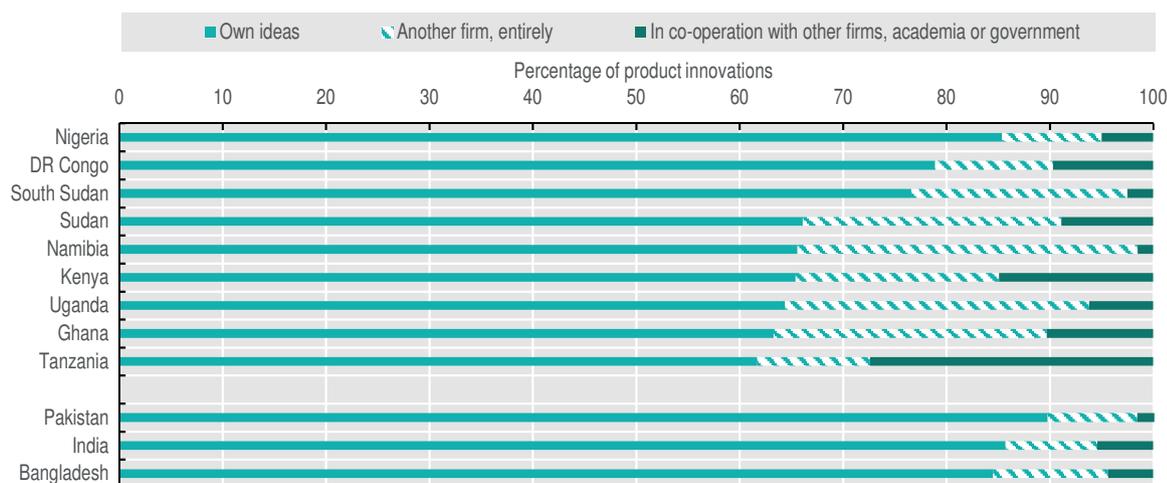
Note: Africa average includes: DR Congo, Ghana, Kenya, Namibia, Nigeria, South Sudan, Sudan, Tanzania, Uganda and Zambia.

Source: Buba et al. (2016), *An Assessment of the Investment Climate in Nigeria: The Challenges of Nigeria's Private Sector*.

Existing technologies and know-how must extend beyond the islands of excellence made by the lead and innovative firms. Today Africa's productive structure is highly segmented across firms in terms of productivity and innovation capacities. Though the dearth of data prevents a comprehensive overview of Africa's industrial structure, the evidence available shows large gaps in productivity, management practices and product standards between a small group of highly productive firms – mostly large domestic firms and multinational enterprises (MNEs) – and the rest of the economy. For example, Ghana's top 1% most productive firms produce on average 169 times more value-added per firm than the other 99% (Teal, 2016).

The diffusion of existing technologies and innovation practices is not automatic. As shown in Figure 1.5, firms in Africa do not co-operate with other firms to develop product innovations,² nor do they have strong innovation linkages with academia or government institutions. In nine African countries considered in the World Bank's Enterprise Surveys, more than 60% of firms rely on their own ideas and skills to develop product innovations (Buba et al., 2016). In Nigeria, 85% of firms develop them in house: they depend entirely on internal capabilities.

Figure 1.5. Modalities through which firms develop product innovations in nine African countries, Bangladesh, India and Pakistan



Note: The World Bank Enterprise Survey asked to which extent innovations are developed in the enterprise or in co-operation with other firms or institutions. In this figure, the modalities through which firms develop product innovation are classified in four groups: i) developed using own ideas in the enterprise, including the hiring of specialised staff or companies; ii) developed in co-operation by other firms or consultants; iii) developed by other firms; and iv) developed in co-operation with academia or government institutions.

Source: Buba et al. (2016) and authors' calculations based on World Bank (2019b), *World Bank Enterprise Surveys* (database).

StatLink  <https://doi.org/10.1787/888933966827>

Box 1.3. Business innovation and its expected impacts on the economy

Multiple factors affect firm's innovation and productivity growth.

1. The **level of competition** forces all firms to become more productive to survive and more innovative to escape price competition. Competition also reduces the profit of less productive firms and drives them out of business, thus increasing aggregate productivity levels through a process of “creative destruction” (Schumpeter, 1942; Aghion and Howitt, 2006).
2. The currently dominant policy approach in Africa emphasises the importance of **good business environment and infrastructure** in improving firms' productivity. Indeed, African firms face a number of cross-cutting challenges with their needs varying significantly.
3. Recent research on drivers of firms' upgrading in Africa underlines the role of sector- and **firm-specific characteristics**, such as management capability, the prevalence of the informal sector and the strength of industrial linkages (Bloom et al., 2016; Rodrik, 2016; Altenburg and Lütkenhorst, 2015).
4. New empirical evidence on the heterogeneity of firms and **knowledge linkages** emphasises the bottlenecks in the diffusion of existing technologies and knowledge from national frontier firms to other firms (Andrews, Criscuolo and Gal, 2016 OECD, 2015). This finding suggests that the future of productivity growth will largely depend on reviving the policy channels of diffusing existing technologies and knowledge from national frontier firms to laggards. *Africa's Development Dynamics 2018* pointed to the prevalence of informal firms, the difficulty of formalising them and weak management as additional explanations for African firms' lagging performance (AUC/OECD, 2018).

Economy-wide productivity growth results not only from the ability of the domestic lead firms to catch up with the new technologies and knowledge developed at the global frontier, but also from the need for diffusion of existing technologies and knowledge from national frontier firms to the others. Using the firm-level data in OECD countries between 2001 and 2013, Andrews, Criscuolo and Gal (2016) found that labour productivity at the global frontier increased at an average annual rate of 2.8% in the manufacturing sector, compared to productivity gains of just 0.6% for laggards. This divergence was even more pronounced in business services.

The 2018 update of the *Oslo Manual* defines business innovation outcomes as “a new or improved product or process (or combination thereof) that differs significantly from the unit's previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process)”.

Source: OECD/Eurostat (2018), *Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation*, 4th Edition.

Cluster policy can develop strategic sectors by building on local assets and providing business services to help lead firms strengthen their linkages to the local suppliers

Clusters are strategic to develop an economy's latent and revealed comparative advantages (see Chapters 2-6 for the regional analysis of comparative advantages). Cluster policy goes hand-in-hand with foreign direct investment (FDI) policy and the strategy for productive transformation. Clusters enable resource-constrained governments to prioritise by investing in a targeted place; they build linkages among governments,

firms, investors and universities. Governments can simultaneously address barriers to investment and to doing business, for example by providing access to quality infrastructure (especially electricity and road transport), and by creating regulations, such as custom procedures, taxation and business permits. In this process, countries can approach the global technology frontier by attracting FDI using higher capabilities in targeted sectors that have comparative advantages. The relatively higher density of companies, suppliers, service providers and associated institutions in a cluster can lead to higher spill-overs and knowledge transfers, further increasing policy impact.

African countries are becoming more successful in building industrial clusters. Morocco has developed the Tangier-Med into a world-class automotive and aeronautics cluster that produces many parts and components for European manufacturers. In Ethiopia, Eastern Industry Zone and the Hawassa Industrial Park have attracted Chinese manufacturing firms in the textile, garments and shoe manufacturing industry. The Kigali Special Economic Zone (KSEZ) has contributed significantly to Rwanda's economy since its recent creation in 2013. Firms moving into the KSEZ are associated with a 206% increase in sales, a 201% increase in value added and a further 18% increase in the number of permanent employees compared to the trend of similar firms that did not move there (Steenbergen and Javorcik, 2017). This comes in stark contrast with the failure of past SEZs to take off: they had limited linkages with regional economies, so that firms and governments eventually abandoned many projects (Farole, 2011).

In Africa, the low production complexity of the majority of firms limits the scope for interaction between local and internationally-competitive lead firms (Hirschman, 1958; Rodriguez-Clare, 1996). Local firms lack the capabilities to identify potential opportunities and synergies and to seize them. For example, FDI-driven model of SEZs alone may not foster productive transformation in Africa. Linkages between MNEs and domestic firms are weaker in Ethiopia, Ghana, Kenya, Mozambique and Uganda than in Cambodia and Viet Nam, preventing technology transfer by limiting vertical linkages in the supply chains.

Both **backward and forward linkages** are relatively weak:

- Backward linkages to domestic suppliers: 66% of intermediate goods and services for firms in Kenya that receive FDI are imported, compared to 25% in Viet Nam.
- Forward linkages: only 3% of FDI firms in Kenya produce inputs for other Kenyan firms, compared to 61% in Viet Nam (Newman et al., 2019).

Local assets and business services matter for successful cluster policies. At least three aspects are important for African governments to ensure that cluster policy can transform the production structure.

First, the success of cluster depends on its location and linkage with the existing local economy. Governments should identify clusters with a critical mass of interdependent firms and actors based on their specialisation, composition, development stage, the intensity of existing linkages and the ability to create inclusive jobs (Donahue, Parilla and McDearman, 2018). For example, Morocco has successfully taken advantage of the Tangier-Med region's close geographic proximity to European markets, strong local universities and existing infrastructure to support the development of its automotive and aeronautics industry. In Rwanda, a key feature to the success of the Kigali Special Economic Zone is its proximity to the capital, where there are already a critical mass of local suppliers and consumers (Steenbergen and Javorcik, 2017). In contrast, past special economic zones in Central Africa, Tunisia and West Africa were often "cathedrals in the desert": they were located in remote areas without the necessary supporting conditions (Farole, 2011).

Promoting existing clusters may be more effective than building new ones. Clusters such as the Otigba ICT cluster in Nigeria, the Nnewi automotive components cluster and

the Nollywood industry have emerged spontaneously as a result of direct entrepreneurial decisions rather than state planning (Benner, 2012; Otsuka and Sonobe, 2011). In Ghana, the Suame Magazine Industrial Development Organization was created after some 200 000 informal car parts producers had developed into an informal cluster. Policies were introduced *ex post* to support the informal cluster by improving infrastructure, business services and training and by accrediting technical skills that were informally acquired.

Second, local governments can play a match-making role between lead firms, local suppliers and other stakeholders such as research institutions, labour associations and investors. Governments can help create entities that co-ordinate interaction between different stakeholders (Harrison and Rodríguez-Clare, 2010). In South Africa's Durban automotive cluster, the local government brought firms together in industrial associations in the apparel and automotive sectors that were precursors to fully developed clusters. It did so mainly by funding official associations, which led to information exchanges and cost-saving synergies, for example in training workers (Morris and Barnes, 2006).

Stronger involvement across different levels of governments can help identify new activities inside the clusters and improve their implementation. Local governments may be better placed to implement policies thanks to their proximity. In Nigeria in 2004, the Kwara State Government created Shonga Farms, a public-private venture in commercial agriculture, by co-ordinating with local banks, community members and 13 displaced farmers from Zimbabwe. Shonga Farms have grown to be one of Nigeria's biggest agricultural producers, employing between 4 500 and 6 000 workers, depending on the season.

Giving more responsibilities to local governments calls for giving them the capability to raise more resources. Experience from SEZs developed in China and Viet Nam highlights the importance of empowering municipal governments to work closely with firms and investors in the zones to match investment in infrastructure and skills with their needs. In contrast, a recent review of SEZs in Ethiopia reveals a lack of local autonomy, as the Industrial Park Development Corporation built, owned and operated most of them. The lack of autonomy prevented the park management from adopting quick reforms or purchasing essential tools and equipment for maintenance (Tang, 2019).

Many African cities lack the basic infrastructure, urban planning and management capacity to boost their competitiveness (AfDB/OECD/UNDP, 2016). Weak finance resources partly explain this mismatch. Municipalities tend to have larger populations in Africa than in LAC, Europe and North America, yet subnational governments only account for 8% of public spending in Africa compared to 24% in a sample of 95 countries (AfDB/OECD/UNDP, 2015; OECD/UCLG, 2016). Giving more autonomy to local governments to generate their own resources can help bridge this gap, provided transparency and macro-prudential regulations are properly carried out. Cities such as Banha, Egypt, or Nyagatare and Rubavu, Rwanda, generate less than 25% of their revenues locally, compared to over 80% for Medellín in Colombia (AfDB/OECD/UNDP, 2016).

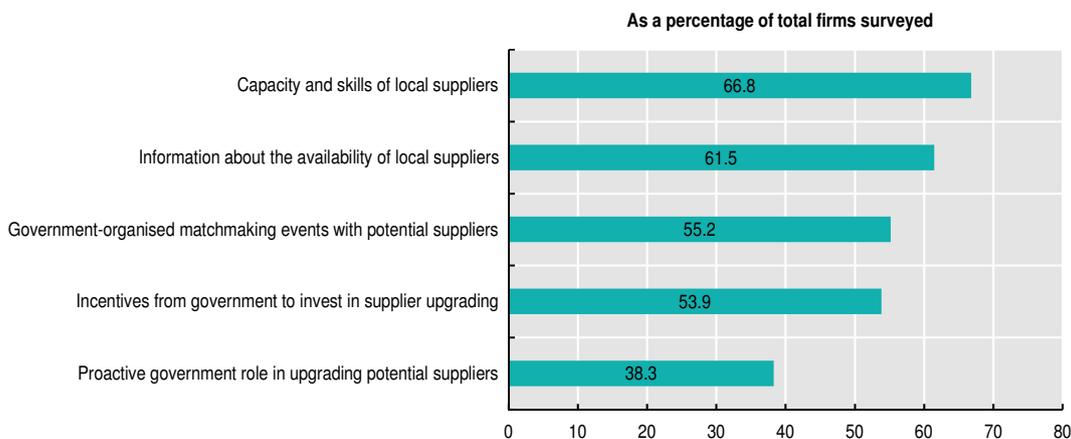
Third, cluster policy comes together with direct services that boost local suppliers' capabilities. Specific interventions should help SMEs upgrade their capacities in producing intermediate goods and services for larger firms, domestically and internationally. The skills of local suppliers and information about them are the two most important factors for foreign firms when they consider working with local suppliers (Figure 1.6).

In Ethiopia, Bole Lemi Phase-I Industrial Park, with the support of the International Development Association, is piloting a new programme to address these concerns. The interventions include trade shows for potential buyers and suppliers to understand the opportunities, capacities and demands of each other. It also provides a matching grant of up to 60% for SMEs to invest in their operation and upgrade.

Past experience from Asia highlights the need to provide support to local suppliers in order to benefit from linkages with international companies in the cluster. In the 1980s,

Singapore was successful in attracting foreign investments through their clusters policy: 75% of their manufacturing output and 80% of exports came from foreign MNEs, with foreign-owned firms accounting for a large part of the services sector, such as financial services, hotels and transport. However, domestic SMEs were lagging behind and had limited links to the leading foreign multinational enterprises. Singaporean government then contracted with the Japanese Productivity Center to set up what is now known as the Standards, Productivity and Innovation Board SPRING to support the capability of local firms. From an initial focus on improving firm management, the Singaporean SPRING now offers a wide range of firm-capability programmes. These include incentivising the private sector through awards and prizes, making equity investments or co-investments, and building capacity in the entire ecosystem through multiple national and international partnerships (Cirera and Maloney, 2017).

Figure 1.6. What matters for foreign investment firms to source from local suppliers



Note: The total sample of the survey includes 750 multinational investors and corporate executives. The percentages represent respondents who answered “important” or “critically important” to the question “How important are the capabilities of local firms to act as suppliers in your decision to invest in developing countries?”

Source: Authors' calculations based on World Bank (2017a), *Global Investment Competitiveness Report: Foreign investor Perspectives and Policy Implications*.

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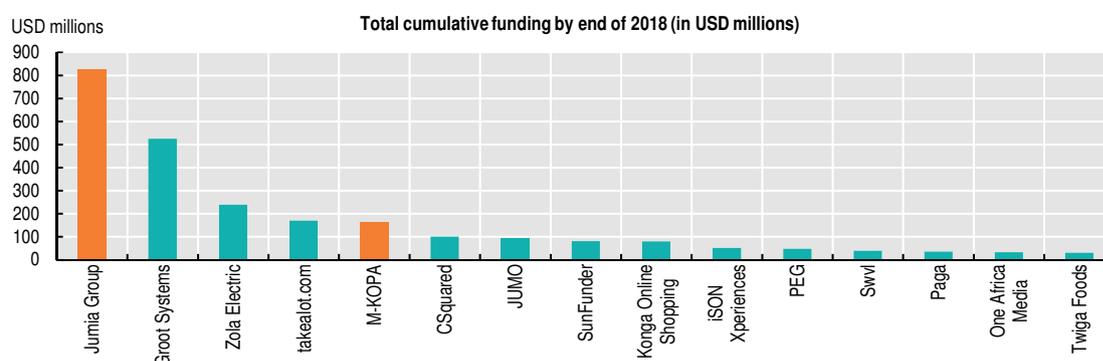
Nonetheless, developing infrastructure for clusters can only be part of a broader strategy to create millions of decent jobs. In Kenya, almost 20% of all manufacturing jobs are located in Export Processing Zones (Signé, 2018). Still Kenya needs to create more jobs beyond these geographic areas. Total employment in Kenya increased by 5.9% annually between 2013 and 2015 (KIPPRA, 2017), but it was largely driven by the rise in informal jobs, which accounted for 85% of all new employment. The employment-to-population ratio was still only 32% in 2014. SMEs represent around 25% of GDP and 83% of informal employment in Kenya, and 50% of GDP in South Africa (Ngarachu, Draper and Owino, 2017). In sub-Saharan Africa, SMEs provide around 80% of informal jobs (UNCTAD, 2017).

Help Africa's small growing businesses specialise in niches and scale up

Africa's small growing businesses (SGBs) remain a pillar of inclusive growth and business innovation.³ Small young firms with fewer than 20 employees and less than 5 years of experience account for the largest share of net job creation, at 22% (Ayyagari, Demircuc-Kunt and Maksimovic, 2014). Helping these new ventures grow is key to creating jobs on the continent. They can also bring dynamism to the economy through innovation and product differentiation: 20% of new entrepreneurs in Africa introduce a new product or service. Figure 1.7 shows a list of 15 successful African start-ups, all founded less than 10 years ago. Two examples of small growing businesses developed by global entrepreneurs in Africa are:

- Jumia Group, founded in 2012, valued at over USD 1 billion at Initial Public Offering on the New York Stock Exchange (NYSE) in April 2019. Jumia is the first African-based start-up on the NYSE, heralding in a new era of optimism for investments into the sector. The Lagos-based company is now present in more than 18 African countries, providing platforms for e-commerce, holiday booking, food delivery and payment services, among others.
- M-KOPA is a Kenyan solar energy company founded in 2011. During 2016-17, it reported selling more than 100 000 solar photovoltaic panels made in Kenya by Solinc East Africa. While some of its panels have come from overseas, by 2021, M-KOPA hopes to source all its panels from Kenya; this will amount to half a million panels representing 6.6 MW of power. Solinc plans to hire an additional 30 engineers over the next two years to fulfil growing M-KOPA orders.

Figure 1.7. Fifteen examples of young and fast growing firms in Africa, founded after 2009



Source: Authors' calculations based on Crunchbase (2019), *Crunchbase Pro* (database).
 StatLink <https://doi.org/10.1787/888933966846>

The *Collaborative for Frontier Finance* (2018) report defines small growing businesses (SGBs) as “businesses, commercially viable, with five to 250 employees having significant potential and ambition for growth”. Concentrated in large and diversified cities, these firms operate across a wide spectrum of sectors (see Box 1.4). Segmenting these SGBs by their growth orientation and their innovation profile reveals three distinct types of firms in Africa (CFF, 2018; Woodruff, 2018):

1. **High-growth ventures** are SGBs seeking disruptive business models and targeting large markets. While often accounting for less than 10% of SGBs in developing countries, high-growth ventures can disproportionately contribute to the economy through their high growth potential and innovation. To fuel their growth, high-growth ventures usually require staged “risk capital investments”, embedded ecosystems of investors, highly-skilled workers and infrastructure. In 2018, African tech start-ups raised almost USD 1.2 billion in equity compared to USD 560 million in 2017 (Collon and Dème, 2018).
2. **Dynamic enterprises** deploy existing products or proven business models as they seek to grow through specialisation in niche markets, market extension or step-by-step innovations. Their growth and scale potential is moderate and depends on their access to markets. These firms often face the “missing middle” financing gap, because they are too big for microfinance, too small or risky for traditional bank lending, and lack the growth, return and exit potential for venture capitals.
3. **Livelihood-sustaining enterprises** are often small-scale entities maintaining a source of income for an individual family. They tend to replicate existing business

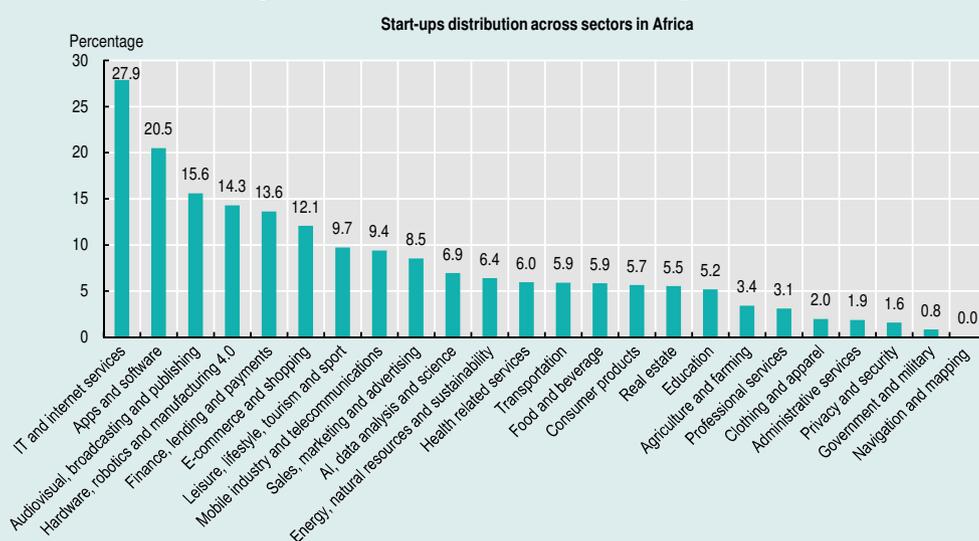
models, serving local markets or value chains. Their financial needs are centred on short-term working capital. Competition can drive the less productive firms out of the local markets, which are becoming better integrated thanks to the diffusion of ICT and to urbanisation (Jensen and Miller, 2018). This type of firm does not include subsistence-driven micro-enterprises that have limited growth prospects.

Box 1.4. Start-ups in Africa: Where are they and what do they do?

The majority of start-ups in Africa concentrate in large cities with supporting infrastructure and service providers. This highlights the importance of having a strong supporting ecosystem. For example in 2019, 5 cities host 49% of the 7 000 African start-ups identified by Crunchbase (2019): Cape Town (12.5%), Lagos (10.3%), Johannesburg (10.1%), Nairobi (8.8%) and Cairo (6.9%). These cities offer a strong ecosystem with a critical mass of skills, supporting infrastructure, investors and community for entrepreneurship. Accelerators and mentorship by experienced founders show a positive correlation with the likelihood of receiving funding for early-stage technology firms (Qian, Mulas and Lerner, 2018). Incubators for local start-ups have sprouted in South Africa, such as Jozihub, Capetown Garage, Black Girls Code, Shanduka Black Umbrellas, Raizcorp and The Innovation Hub (see Southern Africa chapter). In contrast, a recent study on tech start-ups in Dar es Salaam reveals that a fragmented start-up ecosystem, where accelerators, mentors and the business community have few linkages, is not conducive to start-up development. The study identified, for example, only 11 investors that made a total of 11 investments in 9 tech start-ups (World Bank, 2017b).

Africa's start-ups are engaging in a variety of sectors. The top three activities by Africa's start-ups are related to IT and Internet; the Apps and software; and the creation of audio-visual contents and broadcasting (Figure 1.8). E-commerce comes 6th (12%). The majority of start-ups in Africa run more than one activity (56.3%). Indeed, 29% run two categories of activities and 27.3% to three or more. Those focusing on only one activity account for 43.7%.

Figure 1.8. What do African start-ups do?



Source: Authors' calculations based on Crunchbase (2019), Crunchbase Pro (database).
StatLink <https://doi.org/10.1787/888933966865>

More tailored interventions also are key to help SGBs innovate and scale up, in addition to continuing broad-based reforms for doing business and infrastructure development. National agencies, regional economic communities and the African Intellectual Property Organisation can join forces to promote and facilitate the registration of brands, patents, industrial designs and trademarks in Africa. To date, such registration remains costly and often takes up to a year or more. Government enforcement agencies are not effective in combatting counterfeiters and infringers of intellectual property rights (i4Policy, 2018). Measures to help SMEs co-operate through formal and informal structure can also help them become more productive (Ralandison, Milliot and Harison, 2018a; Ralandison, Milliot and Harison, 2018b).

Policies need to build on local specificities and firms types to help African entrepreneurs develop new niche products and markets. The three types of SGBs mentioned above have different specific needs for policy support (Table 1.5), though they share common challenges such as access to financing and infrastructure. Public policies can help expand business accelerators and community practices that enable firms to carry out innovative activities by focusing both on the business environment and financing of different SGBs:

a. High-growth ventures:

- Governments can support the development of the start-up ecosystems through i) updating legal and regulatory frameworks to the new digital context, ii) investing in technological infrastructure and iii) improving the quality of education – especially for science, technology, engineering and mathematics (STEM) education and non-cognitive skills (see more in the next section). Interventions need to be designed and implemented in collaboration with strong inputs from the private sector. For example, Tunisian Startups, an umbrella organisation for startups in Tunisia, was instrumental in drafting and campaigning for the recent Tunisia Startup Act.
- A growing number of funds adopting alternative structures and instruments represent new financial solutions for high-growth ventures. These include using mezzanine instruments (e.g. revenue-share structures); evergreen funding (that gradually infuse capital into enterprises); and permanent capital vehicles that provide more flexibility on time horizons.

b. Dynamic enterprises:

- Governments can target support for upgrading firms and expanding their access to markets. Policy makers can help connect firms to global value chains through e-commerce platforms (see Box 1.7) or promote the adoption of standards and quality certifications (see Box 1.10).
- Improving financial intermediation, encouraging local and regional commercial banks to develop specialised products and stimulating local investors through investor networks are key to serve the financing needs of the **dynamic enterprises**. For example, in 2002, Ethiopia's Export Credit Guarantee Scheme and customers' advance payment enabled **Al-Impex** to start exporting oilseeds, pulses and spices. Al-Impex now has grown into a multinational commodity-trading hub in East Africa with an annual turnover of USD 16 million. More recently, new specialised financial service providers such as XSML are targeting this group with a range of financial instruments – equity, mezzanine structures and longer-term financing – and technical support. Since 2010, the XSML fund has provided almost USD 100 million in growth capital to small businesses in Central and East Africa.

c. Livelihood-sustaining enterprises:

- Governments can promote the development of basic capabilities. They can also benefit from participating in global value chains by selling through agricultural commodity exchanges or joining trade co-operatives. Quality skills matching job markets needs can be critical for self-employed workers to transition back into gainful employment.
- New technologies can help reduce the costs of credit assessment and of servicing these enterprises. For example, **Liwwa** is an online platform that connects small investors with many other small borrowers. The platform offers affordable, unsecured loans of between USD 7 000 and USD 70 000 for financing trade and assets in 3 to 36 months.

Table 1.5. Three types of small growing businesses in Africa, their specific needs and policy approaches

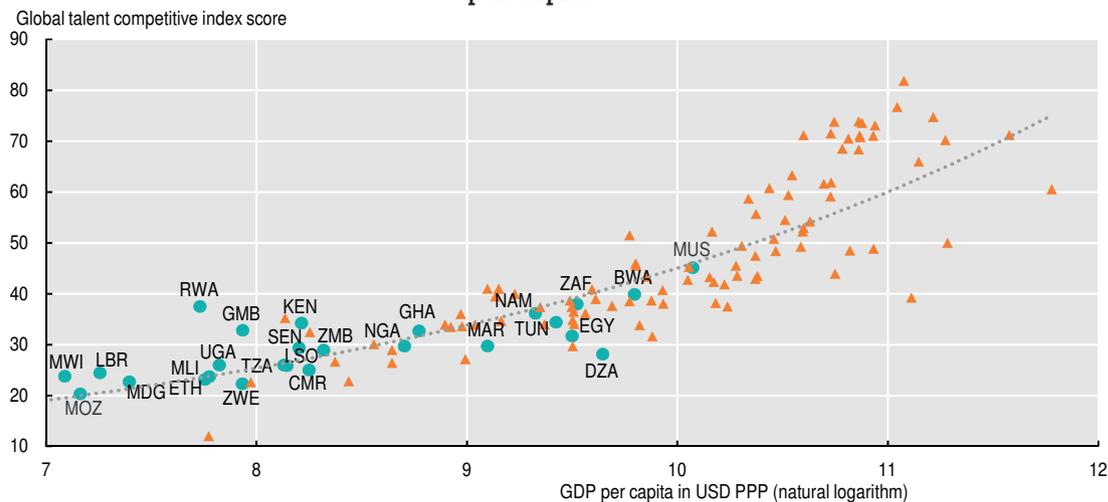
Type of small growing business	Example of specific needs	Potential policy approaches
High-growth ventures with disruptive business models and very high growth potential	<ul style="list-style-type: none"> - Highly specialised skills and embedded supporting infrastructure (e.g. investors, incubators, accelerators) - Staged risk capital 	<ul style="list-style-type: none"> - Focus on ecosystem - Invest in STEM education and skills
Dynamic and niche enterprises with moderate growth potential	<ul style="list-style-type: none"> - Difficulty to access formal forms of firm financing, particularly medium- to long-term loans - Small market sizes, limited to specific niches - Weak management skills 	<ul style="list-style-type: none"> - Facilitate access to markets - Support certification and quality upgrading - Offer individualised consulting programmes - Enhance the variety of credit channels available (e.g. asset-backed lending, credit guarantee schemes, micro-equity)
Livelihood-sustaining, small-scale enterprises serving local markets	<ul style="list-style-type: none"> - Short-term working capital - Weak organisational capabilities 	<ul style="list-style-type: none"> - Adopt reskilling policy to enter labour market - Provide basic management training - Improve financial inclusion through micro-loans

Addressing the skill shortage calls for stronger public-private alliances, deploying new training methods, and increasing talent mobility across the continent

The shifts in technology and global economic order change the composition of demand for skills. For example, the World Bank/LinkedIn Corporation database (2019) shows that the strategic sectors identified by the Southern African Development Community's (SADC) Industrialization Strategy require workers with strong interpersonal, social and behavioural skills. New technology also requires highly-specialised cognitive and technical skills. Nurturing these skills strengthens the adaptability of the workforce to future trends in employment and life-long learning.

- Firms across the region have identified inadequately skilled workforces as a major constraint to their productivity, including 41% of all firms in Tanzania, 30% in Kenya, 9% in South Africa and 6% in Nigeria.
- Proficiency in digital skills is important for African countries to benefit from the Fourth Industrial Revolution. Hence the use of ICT across the continent has much increased: the average ICT intensity of jobs in South Africa increased by 26% over the last decade; the shares of ICT-intensive jobs in Ghana and Kenya's formal sector are 6.7% and 18.4%, respectively (WEF, 2017).
- The Global Talent Competitiveness Index ranks Africa lower than other developing regions when it comes to growing, attracting and retaining talent. The good news is that some African countries are performing better than their income level would suggest, such as Ghana, Kenya, Rwanda and Senegal (Figure 1.9).

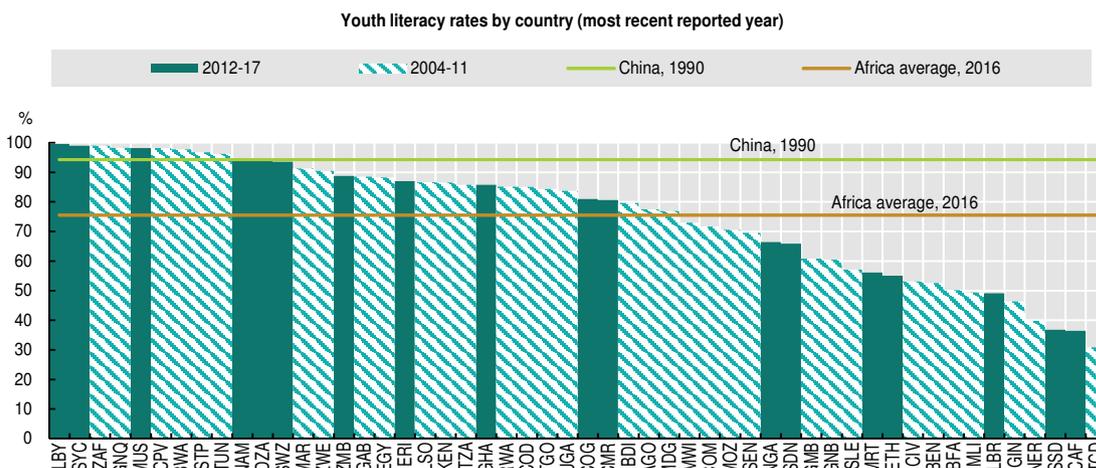
Figure 1.9. Global Talent Competitive Index scores versus gross domestic product per capita



Source: INSEAD (2019), *The Global Talent Competitiveness Index 2019: Entrepreneurial Talent and Global Competitiveness*. StatLink <https://doi.org/10.1787/888933966884>

Getting skills right for the economy requires stronger co-construction between private and public actors in developing curricula, specific courses and training and in matching workers with firms. Private firms will have to lead this process by identifying their needs and proposing innovative solutions. Local governments need to ensure that learning opportunities remain accessible to all and are not limited only to people who are already employed (AU-EU DETF, 2019). For example in Ghana, the Industrial Skills Development Centre has provided valuable training in mechanical, electrical and process engineering with industry representation on its executive board and strong partnerships with local firms. In Kenya, Generation Kenya is an intensive training programme – founded by USAID and McKinsey & Company in collaboration with the Government of Kenya – to re-train graduates who struggle to find a job (see Box 1.5). In Uganda, the Belgian development agency Enabel has helped the mobile phone operator MTN set up special ICT training programmes in nine vocational training institutions. The largest telephone operator in Africa, MTN provides the technical expertise and equipment as part of its corporate social responsibility initiatives.

Figure 1.10. Youth literacy rates in Africa, compared to China



Source: Authors' calculations based on the UNESCO (2019), *Gross Domestic Expenditure on Research and Development* (database). StatLink <https://doi.org/10.1787/888933966903>

Box 1.5. Generation Kenya and OCP Skills: Collaborative programmes for youth in Africa

Generation Kenya is a programme that aims to address the skill shortages through intensive boot camp-style training. A demand-driven model, it co-operates with the private sector and with public and private training institutions. Generation Kenya has partnered with 300 employers and 30 TVET partners.

The programme trains youth aged 18-35, mostly secondary school graduates, for high-growth employment activities in Kenya. It prepares them for jobs such as sewing machine operators, financial services sales representatives, retail and restaurant attendants, and hospitality agents. In addition to learning specific technical skills, participants are trained to enhance soft skills, develop positive business mindsets and utilise professional etiquette in the workplace.

Since 2015, Generation Kenya has launched five training programmes in financial services, distributed sales, customer service agents, retail and restaurant services and sewing machine operations. Eighty-five percent of 11 981 Generation Kenya graduates were hired on completion of the programme. The majority (57%) of graduates were women (compared to the national average of 29% in the formal sector). The employers seem satisfied: 82% of supervisors indicate that they would hire Generation Kenya graduates again.

In 2011, the OCP (*Office chérifien du phosphate*), a Moroccan company specialised in phosphates, set up the OCP Skills programme. It promotes skills by paying the university costs for 15 000 young people from mining areas and supports local entrepreneurial projects. The OCP established four skills centres, in the Rhamna, Khouribga and Youssoufia regions, which have benefited 1 463 young people. The centres have also enabled the creation of 172 very small enterprises, subsidised 58 co-operative projects and financed 171 associative projects and 135 projects of income-generating activities.

Sources: USAID (2019), "Generation Kenya: Fact sheet"; Muraya (2018), "Generation Kenya delivers another 4 000 youths for Kenya job market"; Fondation OCP (2018), *Semer le savoir, cultiver l'avenir – Rapport d'activité 2017*.

New technology can complement existing methods of skills training. Digitalisation has opened up the possibility to provide high quality training on a large scale. Firms and development partners can now provide professional training to the workforce using digitalised contents tailored to their needs. In rural Niger, mobile phone-based training within the *Project Alphabétisation de Base par Cellulaire* (Basic Cellular Literacy Project) increased adults' writing and math test scores by 20% – 25% higher than the standard adult literacy and numeracy programme (Aker, Ksoll and Lybbert, 2011).

Regional institutions can adapt the education curricula to firms' specific needs on a larger scale. Successful innovative skills training use technologies in ways that are supplemental and practical, provide relevant curricular materials, focus on the guided use of technology, and build the capacity of qualified instructors. For example, the African Virtual University serves 38 e-learning centres in 26 African countries through open and distance e-learning.

Talented Africans need to be able to easily move across the continent to meet the skill shortage. A pilot survey of several multinational businesses operating in 17 African countries identified inappropriate visa requirements, restrictive quotas and procedural obstacles as constraints to the mobility of skilled labour on the continent. According to the Africa Visa Openness Index, African citizens still needed a visa to travel to 51% of the other African countries in 2017, down from 54% in 2016. The free movement of people continues to vary by region, in part reflecting regional policies. The Economic Community of West African States (ECOWAS) has visa-free travels for all nationals of the bloc (100% open reciprocity), followed by the East African Community (EAC) (90%), the Arab Maghreb Union (AMU) (60%) and the SADC (56%).

Focus on regional production networks: strengthen regional value chains, develop regional norms and co-ordinate investment

Regional complementarities can provide new competitive advantages for many African economies. **Regional value chains** present strong potential for Africa's industrialisation and have much scope for growth, since regional sourcing remains significantly weak. For example, African producers only source 12.9% of their inputs from within the region, compared to Southeast Asia's 21.6%.

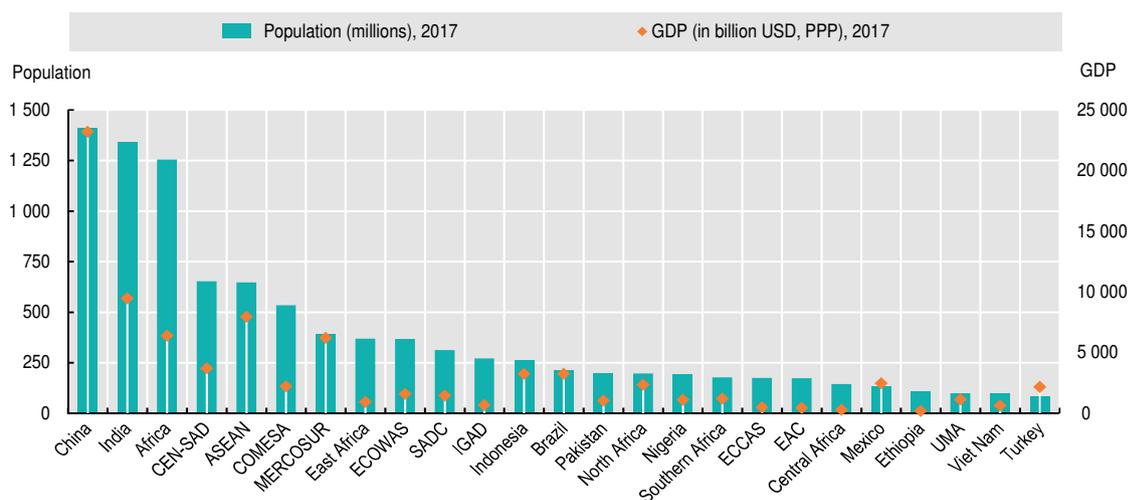
African governments can **join forces** to better attract lead firms and global investors by redefining their main selling points to investors. FDI strategies need further coherence at national and regional levels to become more attractive globally and fine-tune the main selling points to investors.

Investing better in regional production networks leads to larger economies of scale and multiplier effects

African countries will have to think globally and act regionally to generate greater scale. Taken individually, most African countries may not offer sufficiently large economies of scale (Figure 1.11) and enough fundamentals to attract as much FDI as their global competitors. For example, Ethiopia's total exports of textile and clothing products increased to USD 235 million in 2017, which makes it the fifth largest export; however, it hardly competes with Bangladesh at USD 37 billion (Capital Economics, 2018). At the same time, international manufacturers' estimates of labour efficiency and productivity levels in Ethiopia's apparel sector range from 45% to 30% below estimates for Bangladesh and Kenya, respectively (CIIP/World Bank, 2013). Moreover, the Bangladesh Economic Zones Authority (BEZA) aims to develop 100 new economic zones by 2025 (World Bank, 2018a). The BEZA's strategy is to rely mainly on private capital and expertise to build and operate these new zones.

Countries from the Association of Southeast Asian Nations (ASEAN) enjoy several advantages over Africa in attracting Chinese FDI. These include established global production networks, physical and cultural proximity to China, and better competitiveness especially in infrastructure and human capital. They also provide more established financial and business ecosystems, which are needed for FDI.

Figure 1.11. Population and gross domestic product in selected countries and regions, 2017



Source: Authors' calculations based on IMF (2019a), World Economic Outlook, April 2019 (database).
StatLink  <https://doi.org/10.1787/888933966922>

Regional complementarities are key to generating economies of scale between African countries, rather than a competitive zero-sum game. Countries need to increase coherence between regional commitment and national actions. As shown in Table 1.6, as well as in the regional chapters of this report, policy documents at the sub-regional and country levels share similar ambitions with several overlapping priority sectors. Sometimes, each country aims to become the regional hub in a given sector or to develop one specific industry (e.g. low-skilled manufacturing), directly competing with its neighbours. Realising the potential of regional value chains requires greater co-ordination of national industrial policies, regional industrialisation strategies, and corporate strategies of domestic and transnational firms operating across the region. Beggar-thy-neighbour policies slow down the regional integration process while hindering local capacity development.

Table 1.6. Sectoral comparison of on-going industrial policies in 20 countries and 4 regional economic communities in Africa

Country (ISO3)	Strategy (document title)	Timeframe	Agro-food	Metals and mineral processing	Petro-chemicals / fertilisers /plastics	Textiles	Construction materials	Pharmaceuticals	Leather	Wood	Auto industry/ assembly	Electronics
BWA	Industrial Development Policy	2014-28	√	√					√			
CIV	National Development Plan	2016-20	√	√		√	√	√			√	
CMR	Cameroon's Master Plan of Industrialisation	2016-35	√	√	√	√			√	√		
EGY	Industry and Trade Development Strategy	2016-20		√	√	√	√			√		
ETH	Industrial Development Strategic Plan	2013-25	√	√	√	√		√	√	√	√	
GAB	National Industrialization Strategy	2013-25	√	√			√			√		
GHA	An Agenda for jobs: Creating prosperity and equal opportunity for all	2018-21	√	√	√	√		√			√	
KEN	National Industrialization Policy Framework	2012-30	√	√		√		√	√			
LBR	Industry for Liberia's Future	2011-30	√							√		
MAR	Industrial Acceleration Plan	2014-20		√	√	√	√	√	√		√	√
MDG	Act no. 2017-047 on industrial development	2017-25										
MRT	Strategy for the Development of the Industrial Sector in Mauritania	2015-19	√	√	√		√					
MWI	National Industrial Policy	2016-20	√		√			√	√	√		
NGA	National Industrial Revolution Plan	2014-20	√	√	√		√					
RWA	National Industrial Policy	2011-20	√	√	√	√	√	√				
SEN	Plan Senegal Emergent	2014-35	√			√	√					
TUN	National Industry strategy	2011-16	√		√	√	√		√			√
TZA	Integrated Industrial Development Strategy	2011-25	√	√	√	√			√			√
UGA	National Industrial Strategy	2008-ongoing	√		√		√					
ZAF	Industrial Policy Action Plan	2018-21	√	√	√	√		√	√	√	√	
	Total number		17	14	13	12	10	7	9	7	5	3
COMESA	Common Market for Eastern and Southern Africa Industrialisation Strategy	2017-26	√	√	√	√		√		√		
EAC	East African Community Industrialisation Policy	2012-32	√	√	√			√				
ECOWAS	West African Common Industrial Policy (WACIP)	2010-ongoing	√				√	√			√	
SADC	SADC Industrialization Strategy and Roadmap	2015-63	√	√				√				

Source: Authors' elaboration based on national and regional industrialisation strategies and Weiss, Windisch and Seric (forthcoming), "Taxonomy for Mapping Industrial Policy".

Firms can gain new competitive edges if African economies develop regional value chains

Most of the identified regional value chains benefit from an abundant access to raw materials or network of suppliers that give them a comparative advantage. The regional chapters in this report show several promising value chains, each with their selected opportunities and challenges (see Table 1.7). For instance, Côte d'Ivoire and Ghana could become significant actors in the chocolate value chain by investing more in quality upgrading strategies such as sustainable farming, brand reputation and trademarking solutions. They already account for two-thirds of cocoa bean production worldwide and have started to move along the value chain by setting up factories to transform their cocoa into intermediary products and chocolate. The major multinational companies in the global chocolate industry already have processing capacities in the two countries.

Table 1.7. Potential for developing regional value chain in Africa's five regions

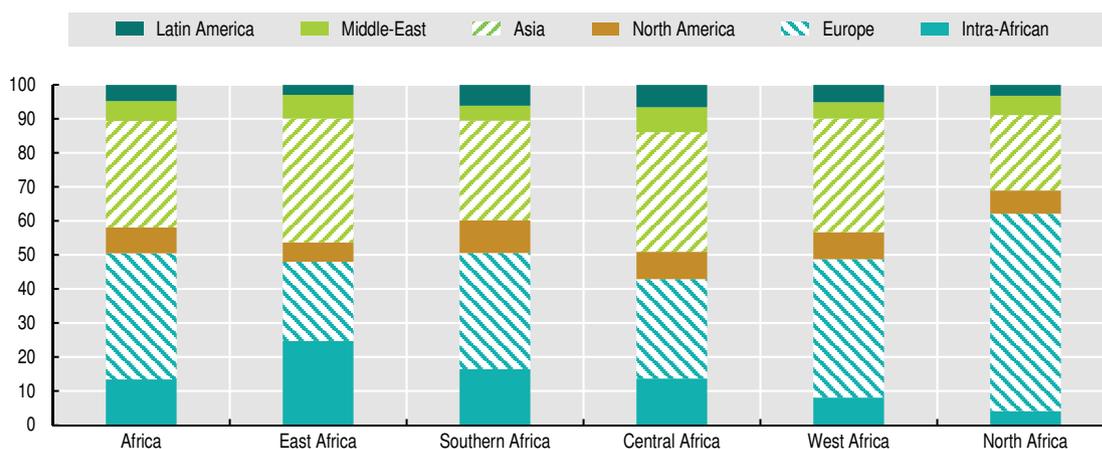
Region	Value chain	Opportunities	Specific challenges to address
Central Africa	Wood processing	Diversity of forest products (ayous, okoumé, sapelli, etc.) Large panel of activities possible: construction, paper pulp, furniture, energy, etc.	Weak processing capacity (sawing, debarking, and cutting trees for plywood and veneer), dominated by informal firms. Better valorise traditional know-how
East Africa	Tourism	Expansion of air transport (notably through Ethiopian Airways, Kenya Airways and RwandAir) Reduction of administrative barriers to entry for tourists (visa on arrival; single East Africa tourist visa for Kenya, Rwanda and Uganda) Emerging regional co-operation to jointly promote East Africa as a tourist destination (regional packages)	Administrative costs, lack of infrastructure in remote areas Promotion of green tourism and preservation of ecological sites, better-value traditional customs, wildlife and national heritage Security issues in some countries
North Africa	Textiles/clothing	Geographical proximity to the European Union and free trade agreement with the United States Accumulated know-how Availability of raw material in most of the region (wool, cotton, etc.)	Need to target specific niches to move upmarket in this chain (design, branding, marketing, etc.)
Southern Africa	Automotive	Strong automotive industry in South Africa Existing production of intermediary inputs in the region (batteries from Botswana, car seat kits manufactured in Lesotho)	Need to identify niches and supply at a competitive rate Small market size
West Africa	Cocoa industry	Global dominance in cocoa bean production Opportunity to create a cross-border Special Economic Zone	Need to develop activities and services that create more value added (branding, marketing, etc.)

Several African regional economic communities are starting to actively support the creation of regional value chains. Most notably, the Action Plan for the SADC's Industrialization Strategy prioritises six key clusters for regional value chain development based on the comparative advantages of each country and the region as a whole: agro-processing, minerals extraction and beneficiation, pharmaceuticals, consumer goods, automobiles, and modern services. The action plan identified and costed specific projects to better align and carry out existing strategies (e.g. Industrialisation Upgrading and Modernisation Programme and Minerals Beneficiation Strategy), develop technical skills (e.g. SADC Centres of Excellence), and address service trade (SADC, 2015). In West Africa, Burkina Faso, Côte d'Ivoire and Mali are launching the first cross-border SEZs to attract private sector investment in agribusiness, agro-industry and the mining sector.

Yet most of these opportunities remain untapped. The level of regional sourcing in Africa remains too weak, the average being under 15% (Figure 1.12). These figures are low when compared to Asian countries. Intra-regional sourcing in Southeast Asia accounts for more than 80% of exports in industries such as motor vehicles, textiles and apparels, and computer, electronic and optical products (OECD, 2018a).

Much heterogeneity exists across African regions. The share of intra-Africa value addition in exports is highest in East Africa at 25%, driven by the development of the East African Economic Community. In contrast, the continental market only accounts for 4% of value added in exports from North Africa. In certain cases, regional value chains have weakened in recent years. For example, the mining chain in Southern Africa traditionally relied on South Africa as a supply hub for capital goods. However, this position was challenged in recent years by more competitiveness imports of capital goods from China (Fessehaie and Rustomjee, 2018). Other agro-based value chains remain limited to primary processing. Activities such as marketing, branding and design could be key to capture higher value addition.

Figure 1.12. Sources of value addition in African exports



Source: AfDB/OECD/UNDP (2014), *African Economic Outlook 2014: Global Value Chains and Africa's Industrialisation*.
StatLink <https://doi.org/10.1787/888933966941>

Strong benchmarking and monitoring can sustain the political commitment to implement the regional strategies. Several good examples exist on the continent:

- The EAC's Common Market scorecard tracks member countries' progress in removing legislative and regulatory restrictions to the movement of capital, services and goods.
- The SADC is monitoring the implementation of its Investment Policy Framework through a number of indicators based both on a framework of laws and conditions and on investment outcomes and development benefits.

Strengthening regional co-operation can facilitate value chain development in the long term. A global review of 279 preferential trade agreements (PTAs) show that deeper PTAs stimulate the development of value chains by facilitating trade of intermediate goods and FDI flows (Osnago, Rocha and Ruta, 2017). Provisions that improve the contractibility of intermediate goods, such as those related to facilitating customs, to addressing sanitary and phyto-sanitary measures and to harmonising product standards and regulations, are particularly important to smooth out differences in contractual institutions and reduce the uncertainty in international transactions. In contrast, the experience from the Southern Common Market (MERCOSUR) shows that tariff reduction does not necessarily lead to higher trade in intermediate goods (Box 1.6).

Development partners could also fill a gap in enhancing resources of regional organisations to effectively manage and monitor regional initiatives. For instance, Africa's traditional partners have long supported the continent's regional integration efforts through trade-related development aid, with well-established technical support

structures and capacity building initiatives (ICTSD, 2016). Future engagement with donors and development partners could be increased. In particular, donors could help the region integrate the various plans that have been adopted and are in motion (ICTSD, 2016). In the implementation process, political, financial, managerial and technical resources are essential to sustain such a reform. Development partners can also help combine the various sectorial and bilateral approaches to avoid silos.

Box 1.6. The MERCOSUR experience

The creation of South America's Southern Common Market, MERCOSUR, did not lead to a sustainable increase in intra-regional trade. MERCOSUR was established in 1991 with the signature of the Treaty of Asunción. Following its implementation, the share of intra-regional trade in total trade more than doubled in less than a decade. While in 1991 intra-regional trade only accounted for slightly more than 10% of total trade, more than 20% was intra-regional in the late 1990's. This increase was mainly driven by manufacturing and probably did not come from a trade diversification. Indeed, intra-regional and world trade expanded in tandem. Moreover, in the early 2000s intra-regional trade experienced a decline. Since then, the share of intra-regional trade in total trade has remained around 15%.

Two main reasons lie behind this stagnation in the share of intra-regional trade. First is the emergence of China. Second, trade frictions grew inside MERSOSUR. This case study suggests that trade facilitation is needed but is not enough on its own. Complementary measures – such as strengthening firms' capability, fostering regional production networks and common regional norms – are key (IDB, 2018).

Source: IDB (2018), *Connecting the Dots: A Road Map for Better Integration in Latin America and the Caribbean*.

Smallholders can integrate regional value chains if governments develop regional norms and certifications

Product differentiation, quality upgrading and certification are essential for value addition in most agricultural value chains. Quality grading systems, labelling and certification can help producing countries move beyond traditional commodity trade on global markets for high-value crops (e.g. coffee, tea, cocoa), increase earnings from exports and raise resilience to price shocks. Potential exists for upgrading along the regional value chains (RVCs) such as processed foods, fresh fruit and vegetables. Demand for processed agricultural products is growing rapidly in Africa (AUC/OECD, 2018). Urbanisation in the region is reducing the distances between producers in rural areas and consumers in urban and peri-urban areas. This trend is supporting agricultural production and the growth of the agro-food industry, which created 66% of jobs in West Africa alone between 2012 and 2015 (Allen, Heinrigs and Heo, 2018).

Agricultural value chains are an obvious target for intervention, given the central role of agriculture in developing economies, particularly in Africa. Agriculture employs over 50% of the population on the continent (AUC/OECD, 2018). According to a census of agricultural land in 20 African countries, over 75% of land holdings are less than two hectares (Lowder, Skoet and Raney, 2016). Linking smallholder farmers to value chains aligns with the objectives of the Comprehensive Africa Agricultural Development Programme (CAADP) and the commitments of the 2014 Malabo Declaration⁴ to: create job opportunities in agricultural value chains for 30% of the youth in the sector; reduce post-harvest losses by 50% and sustain sectoral growth rates of 6% per year. So far, the 47 signatory countries are only partially on track to meet these objectives (AUC, 2018).

Empowering farming associations and co-operatives to carry out services can help bringing smallholder producers together and linking them to RVCs. Generally, Africa's farmers face numerous challenges such as small economies of scale and networks, limited access to credit, and limited business and managerial capabilities (Bamber et al., 2014). Enabling smallholder farmers to join value chains has the potential to raise incomes, stave off poverty, reduce inequalities and boost private sector activity throughout the continent in order to bring long-term sustainable welfare gains (Bamber et al., 2014).

- Interventions promoting value chain integration for smallholder farmers must take into account the need for balance between cash and subsistence crops. Setting up post-harvest solutions such as warehouse receipt systems could benefit farmers from the onset. It has put commodity exchanges on the agenda of development partners that may now be ready to fund larger projects (AfDB, 2013). Nonetheless, many domestic markets in sub-Saharan Africa are too small to support the development of standalone exchanges, hence a regional platform could pull together a much larger market (see Box 1.7).
- Direct technical assistance to farmers can help overcome market asymmetries – including strengthening farmers' bargaining position vis-à-vis large firms – and increase production quality. For example, smallholder farmers play a key role in Ethiopia's agricultural sector, representing approximately 96% of cultivated areas and crop output (Taffesse, 2019). While productivity and market integration are still a long way ahead, smallholders increased their output and transitioned to higher value grain production thanks to extension services and training in the use of improved seeds and the management of farm businesses. Capacity building programmes such as the Support to Farmers' Organizations in Africa Programme are also valuable in bringing together farmers and provide support to better manage their enterprises (IFAD, n.d.).

Building on local specificities can help African entrepreneurs to develop new niche products and markets. For example, the Ghana Centre for Scientific Research into Plant Medicine led scientific research on plant medicine and ensured quality control through careful planning and modern technology. Their partnership with Kasapreko, a local firm, introduced Alomo Bitters (an herbal-based alcoholic drink) which became a major commercial success in Ghana and other markets in West Africa. In 2010, about 951 tonnes of crude plant medicine were sold on Ghana's herbal markets in 2010, with a total value of around USD 7.8 million (Van Anandel, Myren and Van Onselen, 2012). This market now features many micro-entrepreneurs establishing herbal clinics and pharmacy shops in urban centres, as well as several large companies mass-producing plant medicine for West African and OECD markets.

Box 1.7. Linking small and medium-sized enterprises to global markets through e-commerce: Côte d'Ivoire, Morocco and Rwanda

In 2014, the International Trade Center (ITC) launched the E-Solution Program offering a package of technical and advisory services to help firms overcome challenges related to online commerce. The intention is to create national co-operatives and online platforms in African countries and to group them into a pan-African collective – the Africa Electronic Commerce Cooperative – for greater scale and impact.

- Côte d'Ivoire piloted some of these solutions in 2014, where sellers could receive payments from the United States in a legally compliant manner through PayPal, Visa and MasterCard.

Box 1.7. Linking small and medium-sized enterprises to global markets through e-commerce: Côte d'Ivoire, Morocco and Rwanda (cont.)

- **Morocco** had a fairly developed domestic e-commerce, but local SMEs had not been able to effectively enter the global e-commerce marketplace (IPEMED, 2015). In 2015, a group of Moroccan SMEs that had been using e-commerce to sell products domestically formed an export co-operative called Made in Morocco. The co-operative asked the ITC for help with solutions for payment services and logistic facilities for foreign markets (OECD, 2017b). On logistics, ITC brokered business-to-business deals with international partners for transportation, storage and distribution. ITC also helped the co-operative establish a formal commercial presence in Europe, the United Arab Emirates and the United States. It reassured customers that they would benefit fully from local consumer protection laws. Export sales of the co-operative sharply increased, the number of the co-operative's members reached 400 SMEs – ranging from olive oil and cosmetics to books and music –, and several of them trading abroad for the first time (Vaena, 2017).
- In 2017, the ITC launched Enabling the Future of E-commerce in **Rwanda** to provide local micro, small and medium-sized enterprises e-commerce training (ITC, 2018). The ITC performed more than 800 interviews to assess consumers' behaviour and expectations from online selling. To address the challenges linked to Rwanda being a landlocked country and to its lack of adequate delivery system, ITC teamed up with DHL to design the E-commerce Service Center (ECSC). It will offer warehousing and transportation services, starting operations halfway through 2019. Grouping orders from multiple companies through the ECSC will reduce transportation costs and the price for the end customer.
- After a pilot phase in **Côte d'Ivoire**, a regional approach was considered in 2018 with the creation of two online platforms designed to facilitate trade and business opportunities within and outside the West African Economic and Monetary Union:
 - The ConnectUEMOA platform offers business-to-business solutions to local SMEs, allowing them to promote their activities and products through a virtual marketplace. Currently, the platform comprises a total of 2 270 registered firms.
 - The Trade Obstacles Alert Mechanism platform gives local firms the opportunity to report the obstacles they encounter while trading, with a particular focus on non-tariff barriers. It also allows the Regional Trade Facilitation Committee to monitor the impact of the implemented changes. The latter was first implemented and piloted in Côte d'Ivoire in 2014 and has received positive feedback.

Sources: Authors' compilation based on IPEMED (2015), *E-commerce in Africa: Morocco, Tunisia, Senegal and Ivory Coast*; ITC (2018), "Rwandan businesses eye e-commerce success"; OECD (2017b), "Made in Morocco: Case study on linking SMEs to the world of e-commerce", *2017 Aid for Trade – Case Study Template*.

Development partners have an important role to play and can bring immediate benefits to smallholders. Development partners – together with national and local governments – can support the capacity building of farmer organisations (Swinnen, Colen and Maertens, 2013). Development partners can assist in providing training for farmers and agricultural workers on standards and supply chain management, as well as on skills upgrading to capture downstream activities such as processing and packaging

(Bamber et al., 2014). Additionally, development partners can share and help implement best practices to promote gender equality in value chain participation, aiding women-owned businesses in overcoming the numerous additional constraints they face (World Bank, 2019d; GIZ, 2013). Often, lead firms in downstream segments of value chains set their own standards, which are *de facto* mandatory for suppliers to follow if they want to remain in the value chain. Most SMEs – regardless of productivity and competitiveness – do not have international certifications, often due to the high cost of obtaining them. Governments and development partners can assist in this phase, enabling firms to be internationally relevant and to increase their chances of joining value chains.

Over the medium term, regional commodity exchanges can overcome issues by increasing breadth (number of commodities) and depth (volume of commodities traded) and by promoting sufficient liquidity in the market. They can reduce costs associated with identifying market outlets, inspecting product quality, and finding buyers or sellers (IFPRI, 2010). Established in 2013, the East African Exchange (EAX) covers the Kenyan, Rwandan and Ugandan markets. Its goal is to create more bargaining power for smallholder farmers by providing accurate and reliable information, secured storage, and increased penetration of credit and agricultural financing (EAX, n.d.). For instance, thanks to a partnership with several financing institutions, farmers can deposit their cereals in an EAX warehouse and use the receipt given by the exchange as collateral for loans of up to 75% of the produce value. Since its creation, farmers have gotten access to USD 4.7 million to improve their agricultural enterprises (Bizimungu, 2018). However, the EAX's trade volumes remain limited and mostly concentrated in Rwanda for the moment, requiring increased co-operation and co-ordination among member countries (Esiara, 2016).

Box 1.8. Mixed results of agricultural commodity exchanges

Initiatives by country-level agricultural commodity exchanges in Africa have produced mixed results, and they are unable to tackle all the challenges they face (Songwe, 2016). Except for those in South Africa, many national initiatives have not succeeded due to small market sizes, limited market integration or government interventions:

- Zambia and Zimbabwe suspended their operations following unusual price hikes and subsequent government intervention, despite initial successes.
- The Kenyan Agricultural Commodity Exchange and the Uganda Commodity Exchange, launched in the late 1990s, have not been able to attract sizable trade volumes. Currently, their limited roles include providing price information in Kenya and regulating some warehouses on behalf of the government in Uganda.
- Since 2004, more and more countries have launched exchanges, such as the Agricultural Commodity Exchange in Malawi in 2004, Nigeria's exchange in 2006, the Zambian exchange (ZAMACE) in 2007 and the Ethiopian Commodity Exchange (ECX) in 2008.
- In December 2008, the Ethiopian government launched ECX to promote better linkages between smallholder farmers and markets, an initiative praised by the media (The Guardian, 2012; BBC, 2010). Its coffee trade volumes increased from 138 000 tonnes in its first year to 257 000 tonnes in 2016. ECX effectively linked 2.4 million smallholders through co-operatives and facilitated the dissemination of real time market information to farmers, traders and agricultural processors

Box 1.8. Mixed results of agricultural commodity exchanges (cont.)

(Haile, Volk and Rehermann, 2017). However, the value that coffee farmers received for their harvests remained decoupled from international prices, suggesting limited smallholder integration into the global market (Hernandez et al., 2017). Recent research showed that ECX could not strengthen its relationship between international and local coffee prices (coffee made up 35% of Ethiopia's exports from 2000 to 2014). The interdependence between farm gate prices and auction and world prices remained low.

The limited outcome of ECX on the international-domestic price dynamics has three possible explanations:

1. The pre-existence of a Coffee Auction Market centralised in Addis Ababa before ECX already integrated markets well enough.
2. The transaction costs associated with stronger regulations can also dampen the effectiveness of some ECX's innovations such as electronic payments.
3. Weak infrastructure and low productivity might affect price relationship between markets.

African firms can gain new capabilities if governments redefine their FDI strategies

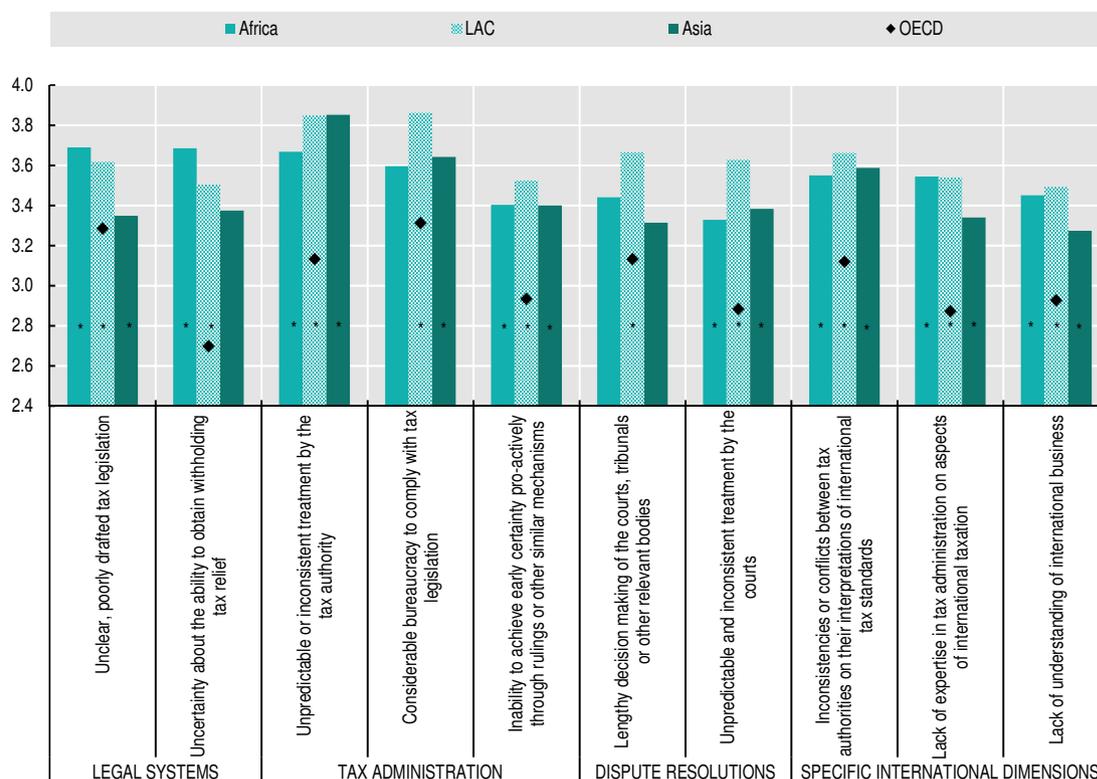
African countries can join forces to better attract FDI. The continent's domestic markets are growing and attracting foreign investments. A rapidly growing population and booming local demand are also attracting FDI: the potential of domestic and regional markets attracted 53.4% of new FDI projects to Africa in 2013-17 (fDi Markets, 2018). However, most individual African economies remain too small. By co-operating, African governments can have more bargaining power to select and monitor better deals for the local economies.

So far, many African national and local governments have been competing globally for FDI, rather than with other African countries or cities. In a globalised world where distance is less a barrier, the landscape of competition between cities for FDI is not just local, national or regional but global (Hanson, 2001; Alderson and Beckfield 2004). For example, no African city belongs to Johannesburg's top five competitors (Bogota, Chicago, Istanbul, Delhi and Buenos Aires). The main competitors for FDI for Cairo are also outside the continent (Al Manamah, Vilnius, Lima, Kiev and Riyadh). Only Abidjan counts three African cities among its top five competitors (Kampala, Kigali, and Dar es Salaam), followed by two non-African cities (Vientiane and Lahore). To attract global investment, national and local governments need to intimately engage with higher scales of policy making, at supra-regional and continental levels. Since attracting global FDI is highly competitive, regional co-operation is critical to amplify individual cities' and countries' negotiation strength (UN-HABITAT/IHS-EUR, 2018).

Relying on low taxes and low labour costs is not enough to attract international investors. Globally, low tax rates and low labour costs rank as the seventh and eighth motivation out of ten. Less than 20% of companies consider benefiting from low tax rates as critically important for their investment decisions (World Bank, 2017a). In contrast, tax uncertainty appears as a major factor for investment decisions in Africa. This is according to the 2016 OECD Business Survey on Taxation covering 724 multinational companies,

which included ambiguity in tax legislation, uncertainty about withholding tax reliefs and inconsistent treatment by tax authorities (Figure 1.13). Similarly, almost half of the companies in the world do not consider the low cost of labour and other production inputs as important or critically important; even for efficiency-seeking FDI, the availability of a skilled workforce is more important.

Figure 1.13. Top ten sources of tax uncertainty for multinationals operating in Africa, Latin America and the Caribbean, and Asia



Note: Results for the question, "Please identify in your experience how important each of the below factors has been in increasing the overall uncertainty on tax issues in the countries you have selected?". The respondents could choose from a scale from 5 to 1, where 5 is extremely important and one is the least important. The questions represented in this table were asked separately for each country selected by the respondents, and each respondent could select a maximum of 4 countries.

* denotes significance of 5% in the difference between the region and OECD.

Source: OECD/IMF (2018).

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- **African policy makers can better align their FDI strategies by identifying their key selling points for each type of FDI.** FDI falls into four categories based on investors' motivations for investment decisions: market seeking, efficiency seeking, natural resource seeking and strategic asset seeking (Dunning and Lundan, 2008; World Bank, 2017a). Different types of FDI respond differently to policy measures. For example, efficiency-seeking FDI has as its main objective to reduce costs and is sensitive to changes in firms' operational costs. Strong currency volatility or increased difficulties in the free exchange of goods and services could deter such efficiency-seeking FDI. By contrast, the three other types of investors – market seeking, natural resource seeking and strategic asset seeking – tend to be more attracted by the size of local markets, clear property rights and the legal framework for doing business. They may also invest in local currencies.

- **Many African countries have an overlapping base for agricultural production.** This leaves room for more complementarity among countries in most African regions than in other world regions such as Latin America and the Caribbean or Asia. Regional value chains could help to leverage Africa's fast-growing demand for processed food products to promote stronger supplier networks around regional lead firms. Demand for food products is expected to triple by 2030.
- **Getting the basics right is the most important factor to attract FDI in the short term.** Domestic political and macroeconomic stability and the dependability of the regulatory environment rank among the top four determinants of FDI inflows. Establishing a clear and stable regulatory framework, protected from arbitrary decisions, is essential in order to attract FDI. In addition, 66% of investors consider the capacity and skills of local suppliers as critically important for FDI decisions. Investors are more interested in information on the availability of local suppliers rather than in levels of taxation (World Bank, 2017a).
- **Countries can avoid inappropriate tax competition by developing regional co-ordination mechanisms targeting different types of FDI.** When access to domestic markets motivates investors, the leading factor driving decisions to choose an investment location is not the "fiscal incentives". Regional co-operation is essential to avoid a "competitiveness race" that would lead to lower welfare for host countries. For example, the SADC has called for wide collaboration on tax incentives to reinforce regional co-ordinated actions to respond to the issue of harmful tax competition. Establishing a programme of tax regulatory convergence could gradually harmonise laws, align national regulations or create regional standards.

In the medium term, increasing reliability and reducing the cost of electricity through regional power pools will attract more FDI. Five regional economic communities (ECOWAS, the Economic Community of Central African States, COMESA, SADC and AMU) already have active regional interconnection projects and power generation plants. Scaling up the regional power pools can lower capital investments at national level, reduce system operational costs and facilitate the creation of appropriate institutional frameworks for electricity trade. In a fully integrated energy supply scenario, power pools could create savings of USD 41 billion per year by 2040 (UNEP, 2017). Additionally, the levelled cost of energy would lead to savings of between 6% (in Southern Africa) and 10% (in East Africa) for end-users, equivalent to nearly USD 10 billion per year (Castellano et al., 2015). East Africa's more stable investment climate and better regional interconnections have made it easier to increase electrification rates. The region has accounted for over 80% of the decline in the number of people without access to electricity in sub-Saharan Africa since 2012.

Focus on firms' ability to thrive on growing demand: target specific markets, improve trade facilitation and remove non-tariff barriers to trade

Export strategies need to differentiate between the challenges faced by firms tapping intra-African and global markets:

- Intra-African trade is key for diversifying and for accumulating new capabilities, particularly for SMEs. Policy interventions should aim to make trade easier by reducing uncertainties linked to market access.
- Global trade remains the main driver of export growth and technology transfers. Policy makers should help increase firms' abilities to anticipate and respond to changes in standards and consumer demand.

Regional policies can follow three key steps to enhance firms' ability to export to regional, continental and global markets:

1. Export strategy needs to differentiate between tapping intra-Africa markets and tapping global markets.
2. In the short term, reducing administrative procedures and promoting the development of logistic services can facilitate market access and help firms respond better to market changes.
3. In the medium term, improving regional infrastructure, particularly in energy transmission and generation, roads, ports, and payment systems can reduce costs for firms and boost trade and economic growth across the continent.

Three mega-trends are changing African and global demand now and will continue in the coming decades: shifting wealth (the change in economic geography from advanced to emerging economies); Africa's demographic revolution; and spatial transformation through rapid urbanisation (AUC/OECD, 2018).

- Outside of Africa, the process of shifting wealth has generated new sources of demand in global markets. Emerging markets in Asia and Latin America increased their imports of consumption goods from USD 870 billion to USD 1 279 billion between 2009 and 2016. China accounted for a third of this increase. China's import of consumption goods more than doubled from USD 92 billion to 211 billion between 2009 and 2016.
- Africa's domestic markets are expanding rapidly. Population growth, rising income levels and more concentrated demand in urban centres are making Africa's growing domestic markets more conducive to economic transformation.

However, currently, African firms are losing out to new competitors both at home and in emerging markets. Between 2009 and 2016, African exports of consumption goods to African markets decreased from USD 12.9 billion to 11.8 billion. At the same time, imports of consumption goods from the rest of the world grew from USD 11.2 billion to 19.0 billion. In emerging markets such as China, African exporters also lag behind new competitors from Asia and Latin America in tapping this new demand. African exporters only accounted for 0.3% of the increase in China's consumption imports, compared to 12.0% from ASEAN countries and 5.1% from Latin America and the Caribbean. An example is Kenya's apparel and textile industry: While the quality of the imported fabric is very good generally, "long order-to-delivery times restrict them from competing in the higher margin, fast-fashion segment of the market" (Konishi et al., 2015).

Time and cost to trade across borders remain higher in Africa than other global regions. According to the World Bank's Doing Business data, complying with border and documentary requirements in Africa is on average 21.9% and 32.7% more expensive than in Latin America and the Caribbean and South Asia, respectively (World Bank, 2018b). Nevertheless, significant differences exist between export and import procedures and African regions. For example, import procedures are cheapest and require the least time in Southern Africa compared to the rest of the continent as well as other developing regions. On the other hand, time and cost of export procedures in North, Southern and West Africa are comparable to South Asia and Latin America and the Caribbean.

Improving African firms' export survival rates will help them diversify and adapt to the new demand

Exporting benefits the whole economy, even when a small fraction of firms engages directly in foreign markets. Exporting pushes firms to upgrade their production and

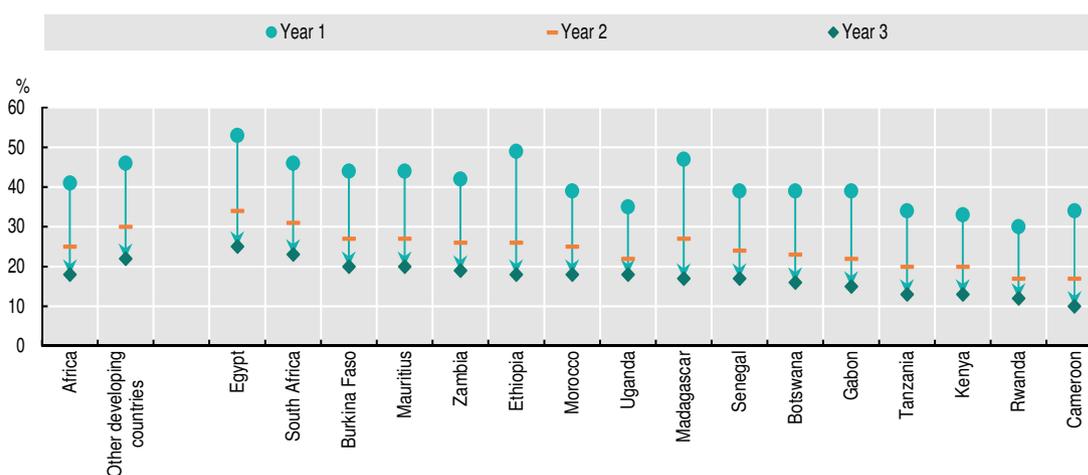
differentiate their products. Competitive firms tend to absorb and implement knowledge that allows them to satisfy demanding buyers (De Loecker, 2003; De Loecker, 2013). The profitability of small rug manufacturers in Egypt increases by 16-26% when they export to more sophisticated foreign firms (Atkin, Khandelwal and Osman, 2017).

Exporting firms also shift to producing fewer outputs of higher quality, i.e. those requiring more labour hours and sold at higher prices. The process of exporting boosts the technical efficiencies of the firms that chose to export through “learning-by-exporting”. As these firms become more productive, they create competitive pressure for other domestic firms to upgrade in order to stay relevant in the production chain.

African countries need to amplify this push through exports. So far, only 18% of Africa’s new exporters survive beyond their third year, or 4 percentage points less than exporters in other developing countries at 22%. Beyond the third year, however, the survival rate increases substantially for firms (Figure 1.14). Using a smaller subset of 11 countries with exporter-level microdata (including three African countries), the conditional survival rate improves beyond the third year across all countries in the sample. This leads to two observations:

- This low survival rate is a common feature of the global export market. It reflects the intense competition in export markets where relatively less productive firms must exit the market. In a context of high market entry cost, the survival rate increases with firms’ export experience (Baldwin, 1990).
- African exporters’ slightly lower survival rate than their peers in other developing countries may discourage capable firms from exporting. It lowers the present value of exporting when capable firms face the decision to start exporting (Ruhl and Willis, 2017).

Figure 1.14. Survival rate of African exporters beyond their third year, compared to other developing regions



Source: Authors' calculations based on World Bank (2019c), *Exporter Dynamics Database*.
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The relatively low survival rate of young African exporters also prevents firms from tapping new products and new markets. The average African exporter sends 5.4 products to 2.5 destinations, whereas other developing countries export 5.9 products to 3.0 markets on average. Experience in the export market enables firms to boost their capacities by:

accumulating knowledge on the existing demand and its future trends; fine-tuning their production process; reinvesting the export sales to increase their size and capital intensiveness; and boosting their productivity level. Thriving exporters face fewer credit constraints in obtaining loans and can build more durable partnerships with buyers. Importers often start with small purchases when initiating a trade relationship with a new supplier that they do not know well. Orders increase with higher confidence and certainty of the supplier's ability to fulfil the buyer's expectations (Rauch and Watson, 2003; Besedeš, 2008).

Making it easier for African firms to export to regional and global markets can increase their growth potential and promote greater dynamism of the continent's private sector. While it is essential to let uncompetitive firms exit export markets, policy can boost the survival rate of capable firms. Enhancing firms' export capabilities requires addressing binding constraints for these firms to survive in destination markets. Limited access to reliable infrastructure, affordable finance, skilled workers, market information, technology and security lead capable firms to exit export markets. Policy makers should also help firms exporting globally to anticipate and respond to changes, particularly in market standards and consumer demand.

Firms will require different policy interventions depending on their destination markets

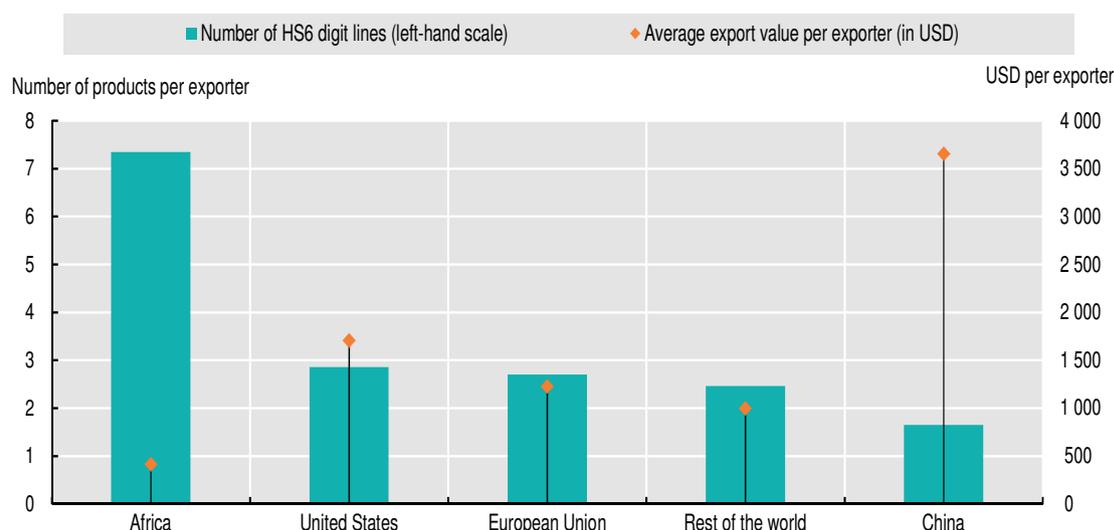
Tapping intra-African and global markets provides different outcomes for private sector development.

- **Intra-African trade is key to diversify export products and destinations and to accumulate new capabilities, particularly for SMEs.** Producing for regional markets allows SMEs to scale up their supply capacity and improve their marketing process in an environment they know better (Altenburg and Melia, 2014). Intra-African markets provide an important breeding ground for SMEs to tap the export markets and learn during the process. Trade between countries with similar productive structures can also be beneficial for clusters of firms. In particular, larger firms can benefit from larger economies of scale, while SMEs can tap new markets for their products or ideas (Parenti, 2018).
- **Global trade remains important for export growth as well as technology transfer.** It requires more fixed investment and larger scale operations and tends to remain more accessible to larger or already-established African firms. Supporting young exporting firms through targeted schemes by export promotion agencies (EPAs) could boost survival rates. In particular, EPAs could provide information on destination markets, facilitate trade financing solutions and promote SME branding (AUC/OECD, 2018).

Export promotion strategies can distinguish between intra-African and global markets. Thriving on intra-African markets is not an automatic step to transition exports to higher income markets. Our analysis of Senegalese exporters between 2000 and 2010 show that Senegalese exporters are highly specialised in either intra-African or extra-African markets (Box 1.9). Only 4% of Senegalese exporters receive comparable export sales between intra-African markets and global markets. In contrast, 96% of exporters source at least two-thirds of their export sales from either African or global markets. Few firms move across these categories. Similar analysis for exporters from Rwanda and South Africa show that the experience of regional exporting does not automatically translate into a shift to international markets (Rankin, 2013; Rwanda Ministry of Trade and Industry, 2014).

Microdata on Africa's exporting firms validate considerable differences in their profiles, sizes and business models, according to the destinations markets. Our continental analysis reveals that African exporters are segmented by destination markets. They tend to export to only one type of destination, such as intra-African markets, other emerging markets outside of Africa or OECD markets. On average, African firms export a lower value spreading across multiple products to intra-African markets than to global markets (Figure 1.15). On average, an African exporter sends 7.4 products to African markets, compared to 2.9 products to United States markets and 1.6 products to China. In contrast, intra-African exports have lower value per destination market compared to other export markets, particularly China where the average export value is over 8 times higher than for African exports. These differences show that intra-African and extra-African markets present diverse challenges and opportunities. They reflect different selection processes that attract and retain different types of firms in diverse markets. These differences call for targeted approaches to tapping exports markets, rather than a "one-size-fits-all" policy approach to exports promotion. The set of policy interventions can be different, both in scope and tools.

Figure 1.15. Export values to African and other markets per exporters in Africa



Note: Weighted for the number of exporters per origin country.

Source: Authors' calculations based on World Bank (2019c), *Exporter Dynamic Database*.

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Box 1.9. Senegalese exporters' success in tapping regional markets and upgrading their product baskets

Senegal has diversified its export basket since 2000. Indeed, its Export Diversification Index⁵ decreased from 3.2 in 2000 to 3 in 2010 reaching its minimum in 2007 of only 2.7, signifying a diversification of Senegal's exports. In contrast, Africa's index did not show any improvement over the period, remaining around 4.2 between 2000 and 2010. Even when compared to Morocco, often seen as an example in Africa regarding diversification, Senegal had a more diversified export structure for half of the years between 2000 and 2010.

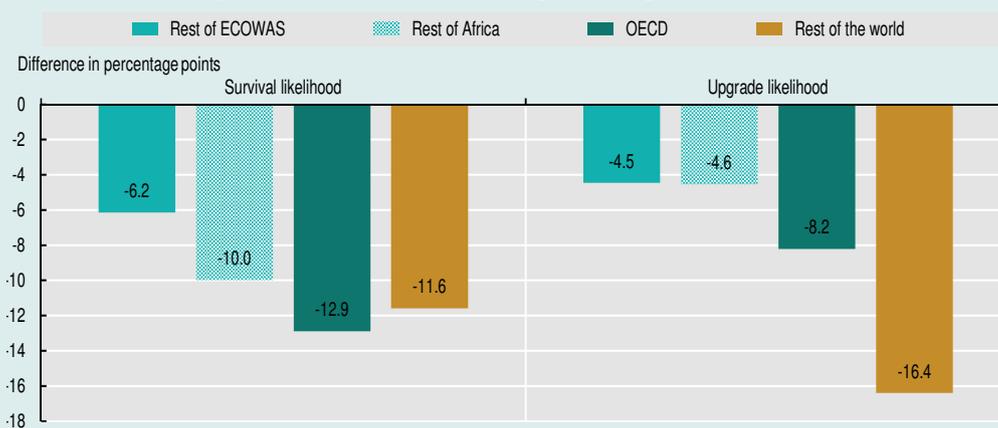
Box 1.9. Senegalese exporters' success in tapping regional markets and upgrading their product baskets (cont.)

Senegalese firms have focused on tapping regional markets, especially to the neighbouring countries before expanding to global markets. Immediate neighbours account for 7 of its top 10 export destinations. African markets account for 44% of Senegal's exports, the third highest rate on the continent, behind Togo and Zimbabwe according to BACI data (Gaulier and Zignago, 2010). Fifty-five percent of Senegalese exporters and 67% of products that Senegal exports go to African markets.

Regional markets provide a good breeding ground for Senegalese exporters where they are more likely to survive. The econometric analysis of exporters from Senegal between 2000 and 2010 shows that contracts (defined as a firm-product-destination triplet) are more likely to survive in regional markets, even after controlling for firms' export experience, the network of similar exporters, destination-specific characteristics and trade gravity variables. Compared to Senegal's exports to its 5 neighbouring countries, exports to all 15 member states of ECOWAS are 6% less likely to survive – suggesting that more can be done at ECOWAS level to help firms tap the regional markets (Figure 1.16). Furthermore, exports to other regions are much less likely to survive compared to neighbouring destinations: 10% less for the rest of Africa markets, 13% less in OECD markets and 12% less in the rest of the world.

Furthermore, Senegalese firms are more likely to upgrade to more sophisticated products when they tap regional markets. Firms' upgrading of their export basket to a specific destination is defined as introducing a new product to the same market with a higher PRODY index than the PRODY indices for any product exported in the previous year.

Figure 1.16. Dynamics of Senegalese exports according to destination, compared to exports to Senegal's neighbour countries



Note: Exports to Senegal's geographic neighbours are used as the comparison group given their importance in Senegal's export profiles. Following Stirbat, Record and Nghardsaysone (2015), we employed a simple ordinary least squares model with firm-level random effect and clustered standard error at the product level. This method allowed for easy reporting of the results while avoiding the pitfalls of applying Cox regression to international trade data, as identified by Hess and Persson (2012). For a robustness check, we used a probit specification (similar to Cadot et al., [2013]) and obtained similar results.

Source: Authors' calculations based on World Bank (2019c), *Exporter Dynamic Database*.

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Firms targeting local and regional markets need policy interventions to facilitate regional trade by reducing uncertainties linked to market access. The most binding constraints for them in intra-African markets are often related to the cost of moving goods, trade finance, non-tariff barriers such as administrative barriers and the uncertainty of exchange rate policies in destination countries. Policies aimed at supporting intra-African trade should focus on reducing administrative burdens and developing connective infrastructure.

In addition to improving hard infrastructure such as feeder roads, trade facilitation can contribute to reducing the costs of linking zones of production to large local consumer markets. Establishing market price information systems often benefits cross-border informal traders, small rural producers and vulnerable groups that work on small margins and have limited, if any, financial safety nets. Informal cross-border trade represents 30-40% of total trade within the SADC. Introducing Simplified Trade Regimes and raising traders' awareness of their rights to regional free-trading, as done in COMESA countries, can reduce the time and costs of compliance at borders. Such long-term support can also bring more informal enterprises into the official economy (Lesser and Moisé-Leeman, 2009). Around 70% of informal traders in Africa are women (Afrika and Ajumbo, 2012; Nimarkoh et al., 2017). In West Africa's food economy, women make up 80% of employment in the processing of agricultural products, 70% of food distribution and almost 90% of sales of ready-to-eat food (Allen, Heinrigs and Heo, 2018; OECD/SWAC, 2019).

Firms targeting global markets need policies that help them anticipate and respond to changes, particularly in market standards. Changes, such as in the stringency of sanitary and phyto-sanitary standards, may deter exporters from entering new markets and lead them to exit existing markets. These uncertainties affect the survival of smaller exporters, rather than larger ones that have better capacity to respond (Fernandes, Ferro and Wilson, 2017). Preferential access to global markets (e.g. the European Union's "Everything but Arms" initiative and the United States' Generalised System of Preferences and the African Growth and Opportunity Act) can help, but it is not sufficient to boost exports (Coulibaly, 2017; Fernandes et al., 2018). Allowing firms to source inputs at lower costs, granting them access to infrastructure and assisting them in meeting global standards are key interventions.

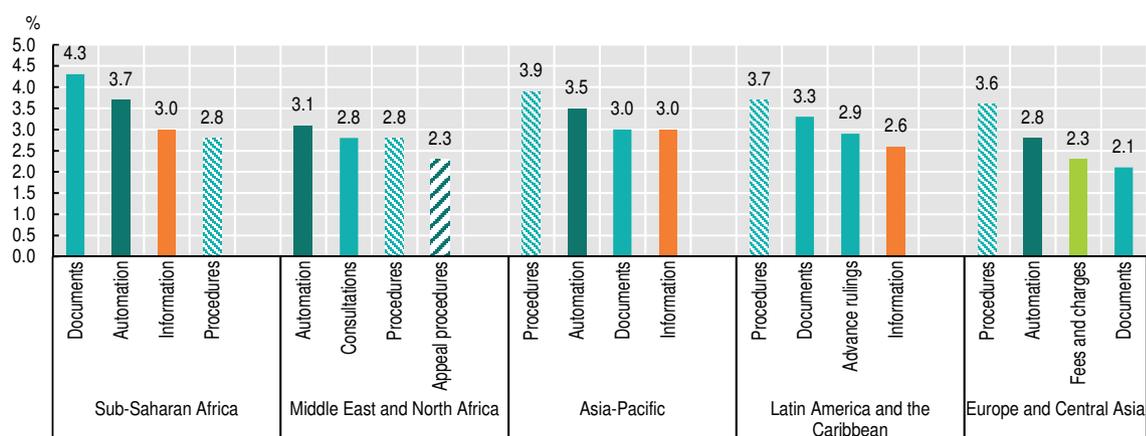
Exports to global markets and integration into global value chains require strategies to help local suppliers meet standards and navigate changes. The uncertainty in today's global trade environment calls for policies that help African exporters better predict and respond to market changes. Between October 2017 and May 2018, World Trade Organization (WTO) members applied 75 new trade-restrictive measures during the review period, including tariff increases, quantitative restrictions, imposition of import taxes and stricter customs regulations (WTO, 2018).

All African exporters can benefit from four key trade facilitation measures: simplify administrative procedures; improve connectivity services; meet international quality standards; and improve regional infrastructure

Many constraints to export growth are common to all firms, regardless of size or destination markets. African firms can benefit from trade facilitation measures to i) simplify administrative procedures, ii) improve connectivity services, iii) help meet international standards, and iv) develop physical infrastructure to reduce trade costs and time. For this reason, tackling both "soft" and "hard" constraints can improve the trading environment and export potential of African firms. Undertaking infrastructure investments and administrative reforms would offer both quick wins and long-term benefits.

Lowering trade costs in Africa allows firms and countries to become more competitive regionally and globally. Trade costs arise in getting to the border (such as transport or logistics costs), crossing the border (such as documentation and customs compliance requirements, lengthy administrative procedures and other delays) and even remaining behind the border (such as non-tariff regulatory measures and general impediments on doing business) (OECD, 2018b). Improving the quality of connective infrastructure, regulatory frameworks and logistics services can help African firms increase their exports. Research shows a strong correlation between infrastructure and trade facilitation improvements in neighbouring countries and greater domestic value chain connectivity (Shepherd, 2017). For example, implementing the WTO Trade Facilitation Agreement would reduce trade costs by more than 16% for many African economies and by more than 18% for sub-Saharan Africa on average, which would result in the highest gains of any global region (Figure 1.17) (WTO, 2015; OECD, 2018b).

Figure 1.17. Gains from different trade facilitation measures (% reduction in trade costs), by regional grouping



Note: Estimates are based on a scenario of full implementation of the WTO Trade Facilitation Agreement.

Source: Authors' calculations based on OECD (2018c).

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African firms need simpler administrative procedures and better connectivity services to tap a dynamic demand

Regional policies can achieve some “quick wins” by reducing administrative procedures and by promoting and streamlining logistics services. Beyond tariffs, fast and efficient customs and port procedures are essential to the smooth operation of supply chains. To compete globally, firms need to maintain lean inventories and still respond quickly to demand. This is not possible when their intermediate inputs suffer unpredictable delays at the border. Harmonising transport procedures and regulations, simplifying customs procedures and improving freight services and warehousing management could reduce transit costs and further benefit connectivity and trade (OECD, 2018b). Actions include:

Making customs administration streamline, impartial and predictable

In 2010, following the merging of three bodies to establish the Ethiopian Revenue and Customs Authority, the country's trade volumes increased by almost 200% while tax revenues increased by over 51% compared to 2006 levels (OECD/WTO, 2011).

A survey of South African firms shows that instances of corruption at the Maputo port (Mozambique) pushed South African firms to opt for longer transport import routes through the Durban port to reduce the risk of paying bribes (Sequeira and Djankov, 2014).

These less risky routes resulted in higher operating costs for firms and bottlenecks along transport routes.

With the advent of the Programme for Infrastructure Development in Africa (PIDA), regional economic communities identified 76 future one-stop border posts (OSBPs) and completed 10 of them by 2016. Development partners supported the establishment of OSBPs, which continue to be an integral component of PIDA (NEPAD Agency/AUC/AfDB, 2018). Before 2009, there were no OSBPs on the continent (PIDA, n.d.). The EAC member countries set up 13 OSBPs to streamline the clearance procedures for regional trade. Eight donor countries provided funding and bilateral technical assistance to the EAC Secretariat (OECD/WTO, 2017). Since November 2018, the EAC has fully operationalised and trained personnel at all 13 OSBPs, with reduced transit times and costs (EAC Secretariat, 2018).

Negotiating and implementing effective regional transit agreements

By regulating the access to and use of trade-related infrastructure, these agreements have a direct effect on facilitating intra-regional trade (ODI, 2016). The implementation of the EAC's Single Customs Territory significantly reduced transit times and cost for goods entering the EAC from Mombasa, by approximately 50% and 30%, respectively (NCTTCA, 2017). ECOWAS has a transit scheme (Inter-State Road Transit), which involves the private sector in its governance.

Promoting competition in regional logistics services

It is important to integrate and develop the logistics sector, particularly using multimodal solutions that incorporate air and maritime transport (ODI, 2016; Shepherd, 2017). The presence of foreign logistics firms can help boost the availability, quality and efficiency of transport and freight services. Policies to eliminate discriminatory regulations should aim in particular at removing localisation barriers such as cabotage and third country rules. However, liberalising the sector could lead to job losses and to fewer firms staying in business, posing new challenges to policy makers (Teravaninthorn and Raballand, 2009).

Governments need to harmonise and implement regional regulations affecting trade logistics services. For instance, it is necessary to accelerate efforts to standardise axle load limits across countries in the SADC countries and in West Africa for more efficient transportation of goods across borders, reduced transit times, and less damage to road and highway infrastructure (De Rochambeau, 2017; ODI, 2016). Promoting transparency and mutual recognition of standards can reduce costs for firms and the risk of arbitrary application of non-tariff barriers.

Africa also needs to boost its air shipping by reducing airport taxes and fees and by improving safety regulations and compliance monitoring. Guaranteeing air rights to regional carriers (i.e. aligning with objectives of the Single African Air Transport Market) rather than distorting markets by supporting national carriers, could promote air traffic growth. Air transport in Africa suffers from high entry and operating costs, strong global competitors, and fragmented markets, resulting in limited economies of scale:

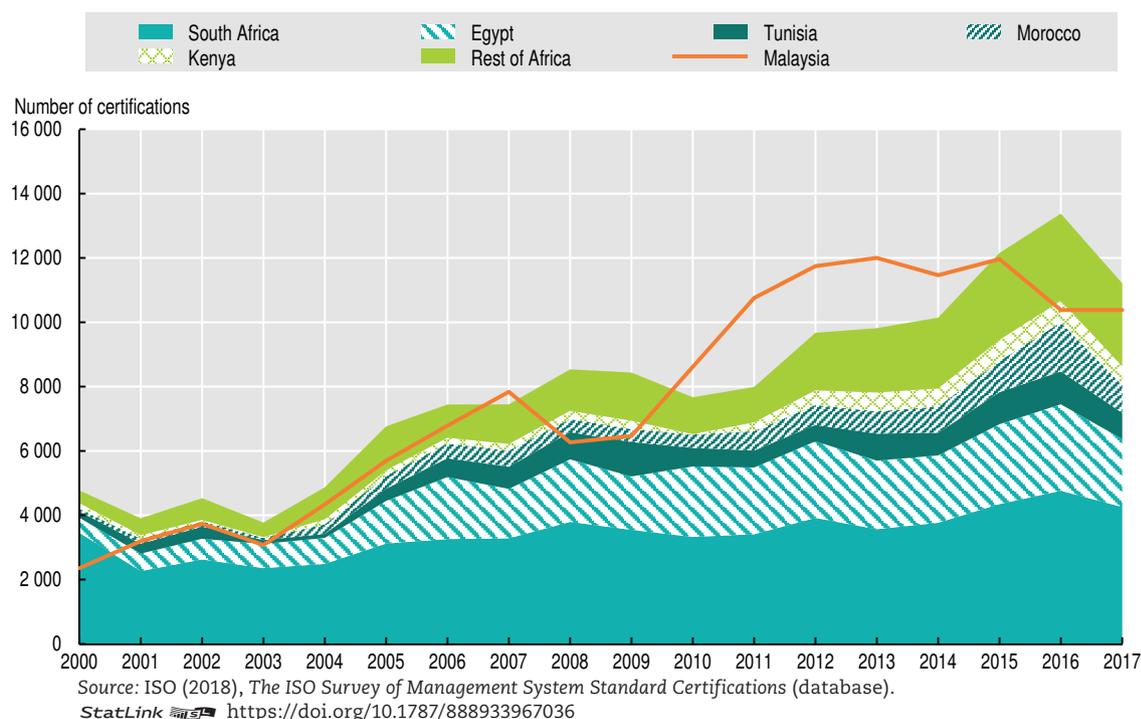
- African airlines carry less than 3% of passengers in Africa, and 80% of total traffic is flown by non-African airlines (Proparco, 2016). Liberalising routes for just 12 African countries would increase passenger traffic by 81%, creating more than 155 000 jobs and adding an extra USD 1.3 billion (0.1%) to the continent's annual GDP (InterVISTAS, 2014).

- African airport and navigational service providers are typically government-owned monopolies and contribute to higher operating costs for cargo airlines. For instance, landing a 200 tonne aircraft in Johannesburg and Nairobi costs around USD 2 500 and USD 1 500, respectively, while the cost at London's Heathrow Airport is USD 500 (Heinz and O'Connell, 2013).
- Adhering to safety standards also poses major challenges to the industry. Carriers from 13 African countries are on the European Union's blacklist due to the countries' inability to guarantee safety checks (Proparco, 2016).

Meeting international quality standards will help access markets and add value to existing exports

The number of certifications such as ISO 9001 on quality management systems and 14001 on environment sustainability has more than doubled in Africa since 2000 (Figure 1.18). However, much room for improvement exists as Africa only accounted for 1.2% of all ISO certifications in 2016, compared to 35% for developing Asia. Figure 1.18 shows that, in 2015, Malaysia filed as many ISO 9001 certifications as all African countries put together. Africa's smaller share stems from its smaller number of formal firms as well as the lower rate of adoption among existing firms. Five countries – Egypt, Kenya, Morocco, South Africa and Tunisia – accounted for 80% of ISO 9001 certifications in Africa in 2016.

Figure 1.18. The number of ISO 9001 certifications in Africa and Malaysia, 2000-16



Governments can harmonise regional standards and accelerate the implementation of mutual recognition agreements (MRAs). MRAs help reduce or eliminate the cost of re-testing and re-certifying goods, services and labour, enabling immediate entry into markets. An evaluation of MRAs between Australia and New Zealand found increased cross-border labour mobility and goods trade (Productivity Commission, 2009). In Africa, COMESA, the EAC, ECOWAS and the SADC have MRAs in place. They are mainly included

as legal provisions for standardisation, quality assurance, metrology and testing, but in some cases they also cover services such as professional qualifications. Implementation across the continent is proceeding very slowly amid several challenges. These include concerns for national sovereignty, immigration concerns stemming from a perceived influx of nationals of other partner states, and often exorbitant work permit and residency fees (Njeru, 2016).

African policy makers can further promote the adoption of proprietary, industrial and commercial standards by local firms through stronger implementation and reforms of national and regional quality systems. Governments may need to support the development of institutions for accreditation, testing and calibration depending on the availability of existing capabilities in these domains and the projected needs of the productive system. Splitting the rule-making and verification functions across multiple agencies can reduce conflict of interest, as standards bureaus in many countries issue unnecessary regulations to benefit from lucrative inspection fees (Cadot et al., 2018).

Governments can also increase firms', especially SMEs', awareness of proprietary, industrial and commercial standards, as well as provide training and business services to guide firms through the certification process. Depending on the sector, other standards can include company standards and external standards developed by trade associations, consortia of trade unions, non-governmental organisations and enterprise associations.

Matching grants or low-cost loans that allow firms to freely choose providers has been found to be more effective than subsidising providers in general (Guasch et al., 2007). Financial support should not be exclusively limited to registration costs because these account for only a small share of total certification costs: adopting and maintaining ISO 14001 could cost between USD 7 000 and USD 16 000 for the first three years (Fikru, 2014). SMEs will require tailored interventions to promote their value chain integration depending on the sector, though common features exist, such as enabling infrastructure, skills training and technology adoption.

Achieving global quality standards as well as setting and harmonising standards at regional level can occur through a variety of approaches adapted to the local context (Box 1.10).

Box 1.10. International certifications and quality labels for traditional exports

Policy makers need the most appropriate solutions for product labelling and certification.

The labelling approach can be based on the geographical origin (the geographical indication) or on the commercial origin (the trademark-based solution). A Geographical indication (GI) can be a viable option for many agricultural products. However, GI is not always a practical solution. GI labelling requires the government to oversee producers and distributors, in order to guarantee that products match specific standards or style or come from a particular region.

Grouping small producers in co-operatives with international certifications can strengthen their position in global supply and value chains. In 1995, Kuapa Kokoo, a Ghanaian co-operative of cocoa farmers became the first Fairtrade-certified smallholder farmers' organisation in West Africa. Producers received a guaranteed price, shielding them from market price volatility. Thanks to this, Kuapa Kokoo's revenues increased by USD 1.6 million between 1993 and 2001. Of the additional revenue, 25% were accrued directly by farmers. The rest was invested in trading, production companies in Ghana and in community projects, including education, health, water and mills, to diversify sources of income (Page and Slater, 2003). Additionally, Kuapa Kokoo obtained government licenses

Box 1.10. International certifications and quality labels for traditional exports (cont.)

to participate in the internal trading of cocoa, allowing its members to take part in the purchasing and marketing of their produce. The co-operative also captured additional stages of the value chain by acquiring a majority stake in the Divine Chocolate Company in the United Kingdom, which markets chocolate products made from cocoa grown by the co-operative's farmers. Since its creation, the co-operative grew from 2 000 farmers in 1993 to more than 100 000 in 2015. Annual cocoa production also increased, from 19 139 tonnes in 2000 to 48 283 tonnes in 2013.

Trademarks alone do not guarantee successful value addition unless the entire value chain adopts the required standards. In 2004, the Ethiopian government launched the Ethiopian Coffee Trademarking and Licensing Initiative to differentiate the Ethiopian coffee in the market using a range of intellectual property rights such as trademarks. The initiative successfully increased export prices of trademarked coffee. However, the income gap between farmers and retailers remains large, with only 5-10% of the retail price in the international market going back to Ethiopia (Gelaw, 2018; WIPO, 2010).

The "commoditisation" of coffee by the Ethiopian Commodity Exchange (ECX) in 2010 eroded the trademark's brand reputation. ECX interrupted the traceability along the value chain by storing coffee under the same geographic label regardless of differences in grade category and specific estate origin. As a result of coffee commoditisation, coffee farmers lost 26% of their potential income (Leung, 2014).

Branding can help innovate and diversify the consumer base for strategic export sectors. Rwanda's tourism sector is one of the most dynamic on the continent. Building on the country's notoriety for gorilla tourism and safety (Nielsen and Spenceley, 2011), Rwanda has attempted to diversify tourist flows and destinations. The joint World Bank-International Finance Corporation Governance for Competitiveness Project (G4C) supported the Government of Rwanda in its effort to promote the country as a location for regional and global business events. As a result, Rwanda experienced a significant growth in meetings, incentives, conferences and events (MICE) tourism. Visitors for conferences increased from 19 085 in 2014 to 35 100 in the first half of 2016. Rwanda's MICE tourism promotion model relies on private sector involvement and ownership and on detailed monitoring and evaluation of tourist flows (World Bank, 2016).

Improve regional connective infrastructure, particularly roads and ports, to boost trade performance and economic growth

Improving connectivity services can only go so far if the infrastructure bottlenecks are not removed. For example, the poor quality of Africa's transport infrastructure accounts for 40% of logistics costs in coastal countries and 60% in landlocked countries (UN-Habitat, 2014). Adopting a regional approach to infrastructure reform would help overcome the inefficiencies that emerge as formal trade barriers fall (e.g. tariffs and administrative procedures) (AfDB, 2019).

Improving road conditions in Africa would reduce transit time and costs, allowing firms to trade more efficiently within the continent, benefiting in particular landlocked regions and countries. Presently, Africa counts the lowest road and rail network density as well as the highest maintenance costs among all world regions (AfDB, 2018). The cost of rail freight in sub-Saharan Africa is on average 200% higher than in Southeast Asia and 150% higher than in Latin America and the Caribbean (Mwase, 2003). For example, goods between Lagos (Nigeria) and Accra (Ghana) are often transported by sea, despite the two cities being less than 500 kilometres apart (OECD, 2018c). Upgrading and maintaining the

road network connecting 83 main sub-Saharan cities could potentially increase overland trade volumes by USD 250 billion over 15 years, almost 8 times more than the total cost of the intervention (Buys, Deichmann and Wheeler, 2006). Simply upgrading existing roads in Central and West Africa would reduce transport costs by 5% (Teravaninthorn and Raballand, 2009). In the EAC, increasing investments in road infrastructure by 10% could increase exports of manufactured goods by almost 37% (Shinyekwa and Ntale, 2017). In Central Africa, the planned Kinshasa-Brazzaville Bridge road and rail project could alleviate logistic bottlenecks on the Congo River and potentially accommodate 3 million passengers and 2 million tonnes of freight annually by 2025 (NEPAD Agency/AUC/AfDB, 2018).

Adapting port infrastructure to cater to the needs of global maritime shipping can boost firms' exports and countries' competitiveness. Ports play a central role in Africa's trade – over 80% of Africa's foreign trade passes through a port (Seka Aba, 2017). Yet, Africa's ports account for 4% of global container trade volume and suffer from underdeveloped hinterlands (Ashiagbor et al., 2018). Sea shipping in Africa is characterised by underutilised capacity of vessels, small and congested ports, and inadequate governance. For example, in 2016 the port of Lomé (Togo) became the best-performing port in West Africa (the region with strongest container trade volume growth), while Lagos (Nigeria) lost 30% of its container traffic in five years due to high costs and congestion (UNCTAD, 2018; Dynamar, 2018). Port infrastructure needs also to become more environment-friendly.

Government intervention to promote maritime shipping needs to follow a dual approach. On one hand, Africa needs to develop its port infrastructure. On the other, reforming governance models is key to encourage competition between port operators and to encourage private sector participation.

Governments should consider assessing port development projects against a set of indicators or international standards (such as those elaborated by (Schipper, Vreugdenhil and de Jong, 2017) to optimise the integration of economic, environmental and social benefits of ports. Enhancing connectivity between ports and inland regions as well as implementing technological solutions to reduce inefficiencies will boost the performance of African ports (UNCTAD, 2018). However, port expansions that follow a growing market can significantly affect natural ecosystems and result in environmental degradation (Gimenez, Sierra and Rodon, 2012). Adopting a “green” approach could streamline port developments and increase the likelihood of buy-in from civil society.

Port infrastructure needs to adapt to increased vessel size. This means accommodating and processing a greater number of containers as well developing deep water harbours. For example, over a dozen West African outlets can or will be able to accept vessels larger than 10 000 20-foot equivalent units (TEU). Nigeria lags behind, peaking at ships of 4 600 TEU (Dynamar, 2018).

Foreign shipping companies are increasingly vertically integrated and dominant in the industry. Nevertheless, there is scope for national and regional policies to incentivise and support local private investors, as in the case of the AfDB/ECOWAS-backed project to establish a pan-African shipping company (Touret and Valero, 2017). Additionally, modernising regulatory frameworks that govern port operations (including land leasing) could greatly incentivise private investment and management of ports, which are sometimes run as monopolies (Seka Aba, 2017; Meyer, 2017).

Boosting intra-African trade calls for removing non-tariff barriers on cross-border movements of goods, services, capital and people

Removing non-tariff barriers (NTBs) to intra-African trade can reduce uncertainties for exporters, boosting trade and multiplying gains. A significant share of trade costs faced by firms in Africa depends on NTBs. Projections for the whole continent show that partially lowering NTBs alongside tariff liberalisation deriving from the African Continental Free Trade Area (AfCFTA) could triple the positive effects on GDP, increasing trade flows and improving terms of trade (Table 1.8) (Afreximbank, 2018). Improving trade logistics, such as customs services, and addressing poor infrastructure could be up to four times more effective in boosting trade than tariff reductions (IMF, 2019). The experience of the West African Economic and Monetary Union countries suggests that with very significant non-tariff barriers and poor infrastructure along core transport routes (Maur and Shepherd, 2015), even a common currency may do relatively little to reduce the transaction costs of trade (World Bank, 2012).

Table 1.8. Gains from AfCFTA with or without removing non-tariff barriers

Policy scenarios	Welfare (USD millions)	GDP (%)	Per capita household welfare (%)	Volume of exports (%)	Volume of imports (%)	Terms of trade (%)
1. Removal of agricultural tariffs only	751.29	0.12	0.16	0.79	0.86	0.14
2. Removal of all tariffs	3 589.06	0.65	0.41	2.94	3.13	0.39
3. Removal of all tariffs and lowering of non-tariff barriers	10 445.70	1.90	1.20	3.79	4.90	0.89
4. Removal of all tariffs and removal of non-tariff barriers	17 956.90	3.15	1.94	5.23	6.59	1.35

Note: The lowering of non-tariff barriers is modelled as a 5% improvement in trading conditions for Policy scenario 3 and a 10% improvement in trading conditions for Policy scenario 4.
Source: Afreximbank (2018).

Improving the quality of connective in-land infrastructure and logistics services will help African SMEs gain competitiveness in regional markets. In Nigeria, transport comes as the most important obstacle to total factor productivity and to productivity growth for countryside enterprises in the manufacturing sector. High inland transport costs make it difficult for firms to operate efficiently from hinterland cities. Besides Kano and Kaduna states, northern cities possess a total factor productivity of approximately one-quarter that of Lagos and one-third the level of other southern states. While firm productivity in Lagos is similar to that in Addis Ababa, Abidjan or Accra, cities in Nigeria's north lag behind (Buba et al., 2016).

Liberalising the cross-border movement of Africans can drive economic activity. Promoting tourism can boost productive transformation, particularly in Small Island and Developing States (SIDS). In the Seychelles, visa-free travel boosted tourist arrivals by 7% annually during 2009-14, helping the country graduate to high-income status. In the EAC, free movement of persons increased African travel to Rwanda by 22% and grew its bilateral trade with Uganda and Kenya by 50% (AfDB/AU, 2016).

Integration of cross-border payment systems can promote innovation and competition in the financial sector while reducing costs for trading firms. Integrating payment systems and financial markets can bring a variety of benefits. For firms, it can minimise transaction costs and increase predictability of business. For governments, it can reduce illicit financial flows and help achieve the Abuja Treaty objectives of full financial integration. Progress is already underway. Payments processed within Africa have increased from 10.2% in 2013 to 12.3% in 2017 (SWIFT, 2018).

- The use of local currencies has risen in regions that have strong regional integration. The West African franc (XOF) increased for intra-African commercial (i.e. bank-to-bank) payments from 4.4% in 2013 to 7.3% in 2017. The South African rand (ZAR), which is the settlement currency of the SADC Integrated Regional Electronic Settlement System, also increased in use from 6.3% to 7.2% over the same period (SWIFT, 2018). The East African Payment System launched in 2013 introduced direct currency exchange, removing the need to convert to third-country currencies (e.g. USD).
- Regional harmonisation initiatives such as the COMESA Regional Payment and Settlement System (REPSS) can boost intra-regional trade and banking in Africa by lowering transaction costs. REPSS settles transactions in international currencies (e.g. USD and EUR) and lowers costs for trading firms by eliminating the need for letters of credit thanks to a system of central bank guarantees. Implementing the AUC-Afreximbank Pan-African Payments and Settlement System could further harmonise operations and bring down costs for firms and financial institutions (AUC, 2019).

Investing in cross-border, multimodal and holistic infrastructure can push regional trade and integration. Trade in partner countries often takes place through key corridors that cross borders and involve multiple modes of transport (OECD/WTO, 2015). Policy makers can focus on dynamic regional corridors to reduce trade costs and attract investment (AfDB/OECD/UNDP, 2015). Development corridors can incorporate investment to upgrade port infrastructure, as in the case of the LAPSSET Corridor, linking Lamu's deepwater port project in Kenya to Ethiopia. They can also link landlocked regions to key regional ports, such as the Maputo Development Corridor, which links South Africa's Gauteng province to the deepwater port in Maputo. Strategic planning tools and close co-operation among countries are essential to this process, as in the case of the Walvis Bay Corridor, which links five SADC countries to Namibia's Walvis Bay port. The governments of Namibia and South Africa jointly set up the road, rail and shipping corridor with a dedicated governance group; they decided to expand the project following initial success in facilitating trade along the route (Mulenga, 2013). Infrastructure corridors can play an important role in spatial development by enhancing the connectivity of rural areas. Only one-third of the continent's population lives within two kilometres of an all-season road (Ashiagbor et al., 2018).

Annex 1.A1. Two champion firms in Africa's productive transformation

Firm case 1: OCP in Morocco – spillover effects since its successful transformation

The phosphate industry plays a growing role in Morocco's vigorous structural change process, both by its financial impact and by its growing knock-on effect on the country's economic and social fabric. Morocco is the world's leading producer of phosphates with 32 million tonnes produced in 2016 and the leading exporter with 37% of the world market for crude phosphates, 47% for phosphoric acid and 22% for fertilisers. The country possesses 70% of the world's known reserves (AfDB/OECD, 2013). The phosphates company (*Office chérifien du phosphate*, OCP) directly employs more than 20 000 staff and represents about 10% of the government's fiscal receipts, as well as generating activities upstream and downstream of the sector thanks to a structured strategy. By 2020, the process will be powered by a series of sun-power and wind-power parks capable of producing 4 000 MW, as part of a plan to develop alternative energies. A specialised institution is being planned to train the 5 300 engineers, 17 900 technicians and 23 900 workers needed for this development.

The financial contribution made by phosphates has significantly increased in recent years. They accounted for 19.35% of the country's exports in 2017, against 16.2% in 2000, and more than 48 billion Moroccan dirhams (MAD) in foreign currency earnings.

A clear strategy for market diversification, continental expansion and value chain upgrading

The commercial and industrial strategy pursued by the OCP since 2006 has been to strengthen the country's presence in the market in large emerging countries (Brazil and India's share of Morocco's fertiliser exports rose from 22% in 2000 to nearly 52% in 2011). Following the creation of the Africa Fertilizer Complex in 2016, the OCP launched OCP AFRICA dedicated specifically to the development of the group's activities across the continent. The group already has 14 subsidiaries in Africa (located in Angola, Benin, Cameroon, the Democratic Republic of the Congo, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Mozambique, Nigeria, Senegal, Tanzania, Zambia and Zimbabwe). As a result, the group achieved a turnover of MAD 48.5 billion in 2017, of which 27% in Africa, followed by Europe (22%), North America (16%), Latin America (16%), India (9%) and the Middle East (6%). The company plans to expand its markets in Africa through joint ventures, equity and direct investments (DEPF, 2019).

Since 2010, the OCP has also reinforced its positioning on the whole phosphate value chain, from extraction to industrial transformation activities. As a result, the value added of the sector increased in 2011 by 41.3% compared with 2010. The group is seeking to improve productivity, lessen its dependence on artesian wells and reduce the costs of exploitation. To this end, it is developing new extraction techniques, new methods of manufacturing fertilisers, a seawater desalination procedure and pipeline transport. The strategy is to double its mining production and triple its fertiliser production by 2020. With this in mind, the OCP plans a large investment programme of around MAD 115 billion to open three new mines and four new washing stations. The group's Board of Directors recently launched the second phase of this investment programme for the period 2018-28, which calls for mobilising MAD 100 billion (MAD 10 billion per year).

Although the potential for job creation in the mines remains limited, the OCP plays a growing role in strengthening agricultural productivity and the chemical industry, as well as in integrating Moroccan businesses into their upstream activities and in developing local skills. The OCP puts its major investment projects out to international tender while offering opportunities to local businessmen in contracts for construction, sub-contracting

and industrial engineering. Between 2009 and 2015, MAD 10 billion were due to be reserved for small and medium-sized enterprises, including industrial enterprises, as part of the group's investment plan. Foreign enterprises, which accommodate Moroccan businesses, were given favourable treatment in the bidding process.

- With the *Plan Maroc Vert*, the OCP is publicising soil fertility testing among farmers so that fertilisers can be used accurately and effectively. In 2010, the group also launched the OCP Innovation Fund for Agriculture, with a budget of MAD 200 million aimed at fostering innovation and local entrepreneurial activity in farming and agro-industry. By 2017, six companies had already benefited from the investment fund, which resulted in the creation of 400 new direct jobs. These investments also generated 2 100 indirect jobs, including more than 1 800 jobs for farmers. These projects focused on the valorisation and marketing of products with a strong focus on innovative, inclusive and sustainable agriculture. For instance, the fund enabled Safilait to process and market dairy products supplied by a co-operative of 1 500 smallholder farmers in the Fkih Ben Salah region.
- OCP is also participating in the national strategic plan for the chemical and paracheical industries, the aim of which is to triple turnover and double the number of jobs in the sector by 2020.
- When the firm created the OCP Skills programme, it began awarding monthly scholarships of MAD 1 200 and MAD 2 000 and covered all university costs for the beneficiaries, in order to ensure the programme's success. The group also supported job-creating projects through financial and technical assistance with the help of financial institutions and business-creation support organisations. Projects selected under this component received a grant of MAD 20 000 each. In less than a year, OCP was able to offer the monthly scholarships to 10 700 young people in 285 sectors in 65 cities. The project has resulted in the OCP's recruitment of 5 800 young people and the support of 52 entrepreneurial and associative projects.

Firm case 2: The MeTL Group – an industrial conglomerate operating in East Africa

The MeTL Group (Mohammed Enterprises-Tanzania Limited) is a company that employs 24 000 people and is Tanzania's largest private sector employer. Its revenues are USD 1.3 billion, contributing 3.5% to Tanzania's GDP. The firm has a five-year plan to grow to USD 5 billion. METL is diversified and its activities include grain-milling, rice, the refining of edible oils, sisal farms, tea estates, cashew fields, logistics and warehousing, financing services, distribution, real estate, transport and logistics, energy, and petroleum. From an initial capacity of 60 tonnes, which then grew to 600 tonnes (Nsehe, 2018), MeTL now refines 2 250 tonnes of edible oils per year following an acquisition that expanded its capacity in 2013. Regarding textiles, MeTL is sub-Saharan Africa's largest entity operating along the entire value chain from ginning to spinning, weaving, knitting, processing and printing. Of the 24 000 jobs created by the group, 8 000 are in textiles. The group also exports 50 of its brands, taking advantage of the fact that Tanzania borders with eight countries, thus leveraging the country's 'land-linked' position. MeTL is now present in 11 African countries and is, arguably, the largest private company in East and Central Africa.

The firm's move from trading to industrial processing came in 1998, and then it established several businesses in agribusiness and manufacturing. Some of these were new greenfield ventures: palm oil refining, soap and candles, and cashew nut processing (Sutton and Olomi, 2010). Others involved the acquisition of an existing enterprise that was in financial distress: a sisal processor, a sugar processor, a wheat flour miller and a bicycle maker were all acquired in this period.

The firm was founded in the 1970s by Gulam Dewji during a time in which the business climate was difficult, even in areas such as trading that were not directly affected by the nationalisations of the period. Many businessmen emigrated, and this created a vacuum (in Mr. Dewji's own words) in which a new, younger generation of individuals like himself could find a niche. He set up a road haulage operation with one truck, transporting produce from one town to another, and later moved into the sale of second-hand clothing.

Today, while the group – as a diversified conglomerate – appears to be involved in seemingly disparate activities, there is a common thread. Speaking to Mohammed Dewji, the chief executive officer of the MeTL Group, it is clear that the common thread across the business is the enabling East African Community's (EAC) policy frameworks, and specifically:

- harmonisation of external tariffs across EAC countries
- harmonisation of internal tariff systems within EAC countries themselves
- rules of origin.

Notes

1. <https://www.acbf-pact.org/media/news/africa-capacity-report-2019>.
2. A product innovation is a new or improved good or service that differs significantly from the firm's previous goods or services and that has been introduced on the market.
3. A business process innovation is a new or improved business process for one or more business functions that differs significantly from the firm's previous business processes and that has been brought into use by the firm.
4. The Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods continues to view CAADP as the main vehicle for implementation of its commitments. It reaffirms the commitment to allocate 10% of public budgets to agriculture. It also specifies more clearly a range of commitments in agriculture, such as increased irrigation and mechanisation or curtailing post-harvest losses. For an overview of the commitments, see <https://www.nepad.org/file-download/download/public/15918>.
5. This indicator is computed using a Theil index: the lower the value, the less concentrated the exports. Italy and the Netherlands were the most diversified exporters in 2010, both with an index of 1.4 while Iran was the least with a value of 6.4. For methodological details, see <https://www.imf.org/external/datamapper/Technical%20Appendix%20for%20Export%20Diversification%20database.pdf>.

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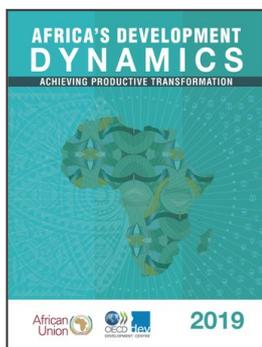
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